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The Relationships Among Organizational Support, Teacher Well-being, and Teacher Resilience in Secondary School Teachers

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THE RELATIONSHIPS AMONG ORGANIZATIONAL SUPPORT, TEACHER
WELL-BEING, AND TEACHER RESILIENCE IN SECONDARY SCHOOL
TEACHERS.

A Dissertation submitted in partial fulfillment of the

requirements for the degree of

Doctor of Education

by

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2023

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COLLEGE OF GRADUATE PROGRAMS AND HONORS STUDIES

APRIL 13, 2023

I HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER MY SUPERVISION BY Lisa Journell ENTITLED the Relationships Among Perceived Organizational Support, Teacher well-being, and Teacher Resilience in Secondary School Teachers BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF Doctor of Education.

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ABSTRACT

Journell, Lisa, Ed.D. Organizational Studies Doctoral Program, Department of Leadership in Education and Organizations, Wright State University, 2023. The Relationships Among Perceived Organizational Support, Teacher Well-being, and Teacher Resilience in Secondary School Teachers

This study examined the relationships among perceived organizational support, teacher well-being, and teacher resilience in secondary school teachers in Ohio public schools. An explanatory sequential mixed methods research design was employed. In phase one, survey data were collected from Ohio public school teachers ($n = 254$, grades 6-12), and structural equation modeling was used to analyze the structure of the relationships between the variables of interest. In phase two, using a phenomenological approach, follow-up interviews were conducted with a subset of participants ($n = 10$) to examine the lived experience of teachers with high and low levels of teacher resilience. Although the hypothesized model for the relationships between the variables was not supported by the survey data in phase one, the interview data indicated that teachers with high resilience experienced more school support and personal protective factors than teachers with low teacher resilience. Teachers with high resilience attributed their resilience to school support (supportive leaders, colleagues, being treated as a professional, recognition, teamwork, and adequate resources) and personal protective

factors (effective teaching skills, relationships, compartmentalization, previous experiences, and mindset). Teachers with low resilience experienced more threats to their resilience (unsupportive leaders, feeling invisible, post-COVID era challenges, bureaucracy, lack of colleague support, and fixed mindset). Implications for the study include: (a) provide a better understanding of how schools as organizations can support teacher well-being and resilience through policies, practices, and relationships, (b) inform school leaders on how they can develop organizational practices that foster teacher well-being and resilience, and (c) inform teachers on personal and contextual resources that bolster their well-being and resilience in the profession.

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Chapter 1: Introduction

To ensure quality education for students, schools need teachers who are resilient enough to not only stay in the profession but also to thrive in the profession. Teaching is a highly contextual and ever-changing profession with a high level of burnout and attrition (Groome et al., 2011; Santoro, 2018; Sutchter et al., 2016), thus, leaders, policymakers, and teachers themselves must seek ways to boost teacher resilience to sustain commitment, motivation, and performance within the profession in order to retain and support quality teachers who can best impact student learning and performance (Carver-Thomas & Darling-Hammond, 2019, Duckworth et al., 2009; Gu, 2014). In this study, to better understand the organizational factors that influence teacher resilience, I aimed to investigate the relationships between organizational support, teacher well-being, and teacher resilience within the contexts of schools as organizations.

The contexts of schools vary based upon many factors including student demographics, socioeconomic basis, culture, leadership, organizational structure, professional development, available resources, and relationships with colleagues. These school contextual factors, especially school culture, workload, and support from leaders, have been shown to explain more variance in job satisfaction, burnout, and well-being than individual factors such as personality in teachers (Ainsworth & Oldsfield, 2019). Also, the profession of teaching continues to shift over time. The demands, expectations,

and instructional modalities of teaching regularly evolve especially in response to unpredictable circumstances in the world, such as the coronavirus disease 2019 (COVID-19) pandemic and the implementation of new technology which are associated with an increase in the reported levels of stress in teachers (Diliberti et al., 2021; Zamarro, 2021). Now more than ever, in light of increased stress and changing conditions associated with the COVID-19 pandemic (Diliberti et al., 2021; Zamarro, 2021), teachers need resilience to stay committed to their profession and thrive in the classroom. A teacher who can flourish in the classroom is more likely to make a positive impact on their students (Day et al., 2009; Harding et al., 2019).

Given that teacher retention and shortages are growing problems in the United States (Carver-Thomas & Darling-Hammond, 2019; Santoro, 2019; Sutchter et al., 2016; Sutchter et al., 2019) and that student performance is highly dependent upon teacher performance and resilience (Carver-Thomas & Darling-Hammond, 2019; Duckworth et al., 2009; Gu, 2014), schools must improve practices and contexts that increase teacher resilience. If we are to retain quality teachers and help them flourish, then examining ways to build teacher resilience must be a priority for the K-12 education system in the United States. Likewise, if we want to build excellent schools and maximize student learning, we must improve practices and contexts that foster teacher resilience. While the antecedents and outcomes of teacher resilience have been well-documented over the last 20 years, there is a need for more research that examines the synergistic influence of contextual factors on teacher resilience and their underlying mechanisms (Ainsworth & Oldfield, 2019; Deng et al., 2020; Fernandes, 2019).

Since the early stages of research on resilience, scholars have posited that the focus of resilience research should be placed on examining protective processes or mechanisms, not simply on individual variables or contextual variables in isolation (Beltman et al., 2011; Garmezy & Rutter, 1983; S. Luthar & P. Brown, 2007; Rutter, 1987, 2012). Recently, Deng et al. (2020) called for more evidence to back the argument that school support moderates the relationship between teacher resilience and teacher performance. Similarly, Mansfield (2020) proposed the need to examine the collective responsibility and development of teacher resilience as a “collective construct”. Notwithstanding, the relationship between teacher resilience and well-being has been sparingly studied (Brouskeli et al., 2018) and scholars have suggested that future researchers should further explore the mechanisms which link the process of positive emotions to resilience (Fredrickson, 2004; Kansky & Diener, 2017; Tugade & Fredrickson, 2007). Furthermore, in terms of school policy, based upon a study of Midwestern United States secondary teachers, Cook et al. (2016) recommended that policymakers, leaders, and researchers should intentionally study and create practices that support the development of well-being in teachers because it helps create a stable and emotionally strong workforce who are equipped to implement best practices in the classroom.

Framed by relational-cultural theory (Jordan, 2004; Jordan et al., 1991), and informed by tenets of organizational support theory (Eisenberger et al., 1986; Eisenberger, 2016; Gouldner, 1960; Levinson, 1965), concepts proposed by Seligman’s (2011) model of subjective well-being and Mansfield et al’s (2016) teacher resilience framework, this study contributed to the body of research on teacher resilience by

examining how perceived organizational support (POS) and teacher well-being influence teacher resilience in public school secondary teachers in Ohio (grades 6-12). A mixed methods research design was employed. The rationale for utilizing both qualitative and quantitative approaches was twofold. For the quantitative data, structural equation modeling was used to analyze the structure of the relationships between POS, teacher well-being, and teacher resilience. Phenomenological analysis was used for the qualitative data to illuminate the lived experience of teacher well-being and teacher resilience. Specifically, to refine the quantitative results, I gathered the participants' points of view in more depth during the qualitative phase to be sensitive to the personal experiences of teachers and the unique contexts of schools (Creswell & Poth, 2018; Marshall & Rossman, 2016). It was hypothesized that teachers who indicated a high level of POS would have greater levels of teacher well-being and teacher resilience because POS fulfills socio-emotional needs and invokes positive reciprocal feelings and behaviors, thereby enhancing the factors of personal well-being which contribute to resilience. That is, I predicted that teachers who felt supported and valued by their schools as organizations were better equipped to flourish in their performance in the classroom and sustain a commitment of excellence to the profession.

Theoretical Foundation

In this section, I will describe the theoretical foundations of the study which guided the overarching development of the problem, purpose, significance, and research questions. In addition, I will illustrate the associated conceptual framework which underpinned the proposed hypotheses of the research and informed the corresponding structure of the relationship between the key variables of interest (Grant & Osanloo,

2014). Finally, I will briefly outline the organization of the study and justify how its intended design was related to both the underlying theoretical foundation and conceptual framework of the research.

Relational-Cultural Theory

Relational-Cultural theory (RCT) (Jordan et al., 1991) postulates that people grow from and through personal relationships and need interpersonal connections throughout their lives because of the neurobiological basis and developmental needs of humans (Jordan, 2018). RCT also posits that cultural norms heavily influence how people connect and to what degree they value and prioritize interpersonal connections (Jordan, 2017, 2018; Jordan et al., 1991). Mutuality of relationships, or mutual empathy, is a core tenet of RCT because when mutuality exists in relationships, both people in the dyadic relationship grow and are lifted up by each other leading to growth based in mutuality (Jordan, 2017). Such interpersonal connections built on mutual empathy, bring about five positive benefits for both parties in the relationship: zest, clarity, worth, creativity, and the desire for more connection (Jordan, 2017; Miller & Stiver, 1997). In contrast, when people experience a chronic state of disconnection, isolation and disempowerment can result (Jordan, 2017) because they feel as if they do not matter and feel a need to conform to those in power thereby stunting one's authenticity, motivation, and sense of purpose (Jordan et al., 1991). These propositions regarding the benefits of human connection and the downfalls of the lack thereof are further supported by neurobiological evidence which substantiates a human evolutionary driving mechanism for avoiding rejection and isolation (Banks, 2011; Cozolino, 2014; Eisenberger & Lieberman, 2004; Fredrickson, 2004). Real, neurobiological pain results from exclusion, isolation, and rejection because

social pain and physical pain use the same neurological pathways (Eisenberger & Lieberman, 2004). Quite literally, it pains humans to be alone and to feel alone. We need human connection and are hard-wired for human connection (Goleman et al., 2013; Jordan, 2017).

Traditional models of psychology, especially those theories commonly accepted in the Western world, emphasize the value of independence and autonomy. A marker of healthy and good human development is often characterized in Western societies as moving from dependence to independence as an indicator of positive psychological growth (Jordan et al., 1991). Historically in theories of psychological development, the influence of relationships has been devalued (Jordan, 2017). In a shift towards a more collective effort of well-being, RCT challenges the norms of traditional psychology that prize independence by positing that humans flourish and thrive when strong relationships exist in their lives to provide interdependence and connection (Jordan & Hartling, 2002; Jordan et al., 1991). Specifically, instead of personal agency, RCT places interpersonal connection as the source of personal protection and creativity (Jordan, 2017). Thus, this connection is what makes us collectively stronger as humans, not our own personal freedom and autonomy. However, RCT proposes that cultural and political norms and values heavily influence the personal theories of psychology held by individuals (Jordan, 2017; Jordan et al., 1991). For example, if people are raised with the cultural norm of valuing independence and self-fulfillment, then they might feel guilty or weak if they need to ask for help or assistance from others. In response to this internal struggle of conflicting needs versus values, RCT not only prioritizes the value of human relationships but also seeks to question and challenge the underlying cultural norms

which may undermine the ability to personally seek human connections and embed practices and mindsets which foster connections in our organizations. Thus, traditional power dynamics in organizations resulting from hierarchical leadership structures are criticized by RCT theorists (Jordan et al., 1991).

Statement of the Problem

In the field of K-12 education where teacher attrition and retention are growing problems, developing organizational policies and practices that help teachers thrive is a critical step in establishing a more resilient teacher workforce. Historically and culturally in the United States, the primary responsibility for cultivating a teacher's professional resilience is usually placed on teachers themselves rather than schools as organizations (Mansfield et al., 2016). Although teachers possess unique individual protective factors for resilience and teacher education programs aim to build the foundation of content, pedagogical, and instructional skills and knowledge needed to thrive in the profession, organizational support as a contextual factor within schools is necessary for further developing and maintaining teachers' resilience as they face daily challenges throughout their careers.

Due to increased levels of attrition and challenges of the profession, hiring and sustaining resilient teachers is essential to maintaining the workforce in schools (Sutcher et al., 2019). Teacher retention is a growing problem in the United States (Arnup & Bowles, 2016; Carver-Thomas & Darling-Hammond, 2019; Sutcher et al., 2016; Sutcher et al., 2019) with teacher shortages steadily increasing since the 1990s to an attrition level of 8% in recent years (Carver-Thomas & Darling-Hammond, 2019) and reaching an unprecedented high level since the onset of the COVID-19 pandemic (Steiner & Woo,

2021; Zamarro, 2021). In addition, one-third of teachers leave the profession within the first year and almost 50% of teachers leave the profession within their first five years of teaching (Groome, 2011; Ingersoll et al., 2014). Teacher preparation program enrollment is on the decline (Sutcher et al., 2016), so the pipeline of incoming new teachers is diminishing. Furthermore, increased stressors related to the COVID-19 pandemic may pose the largest recent threat to the teacher supply. A study conducted in the United States teachers in January 2021 indicated that one in four teachers were likely to leave their jobs by the end of the academic year which marked an almost 9% increase since similar pre-pandemic measures (Steiner & Woo, 2021; Zamarro, 2021). Teachers cited increased stress and depression due to rapidly changing work conditions and instructional modes, swift changes in the application of technology, more challenging work-life balance, and increasing health concerns (Steiner & Woo, 2021; Zamarro, 2021). Diliberti et al. (2021) found that almost half the teachers who voluntarily left the profession or retired early after March 2020 attributed the COVID-19 pandemic as their primary reason for leaving. Based upon the above findings, the national supply for the teacher workforce in the United States is threatened.

Increasing levels of teacher attrition combined with declining levels of job satisfaction and well-being pose serious problems for schools in many ways including poorly staffed schools, decreased student learning and performance, and compounding levels of teacher stress. When attrition results in teacher shortages, especially in high-poverty areas (Carver-Thomas & Darling-Hammond, 2019), schools often resort to hiring poorly qualified teachers or increasing class sizes, which, in turn, negatively impacts student performance (Sutcher et al., 2016). A teacher who is inexperienced or not

qualified is likely to suffer from even greater stress than a more qualified staff member due to possessing inadequate skills and resources when responding to the everyday challenges of the profession. Consequently, the likelihood of teacher turnover is further increased because of compounding levels of stress and decreased job satisfaction. Teachers who voluntarily leave the profession most often cite dissatisfaction as their primary reason for leaving, including dissatisfaction with the following factors: administration, perceptions of support, overall job satisfaction, working conditions, and salary (Carver-Thomas & Darling-Hammond, 2019; Shaw & Newton, 2014; Sutchter et al., 2016). Likewise, Santoro (2018, 2019) proposed that teachers leave the profession not because they are “burnt-out”, but because they are demoralized, meaning they are frustrated with school policies and practices that inhibit their ability to do good teaching work. Although teachers who face this dilemma may not be able to directly change school organizational policies and practices, teacher resilience helps buffer stress and helps teachers be more effective, thus, possibly decreasing attrition while improving performance. Decreasing the attrition rate would address the teacher shortage problem more than any other factor (Sutchter et al., 2016). As such, efforts to improve teacher resilience are critical to developing a more stable teacher workforce.

Perceived organizational support (POS) is defined as the extent to which employees perceive they are valued by their organization for their contributions and supported in terms of their well-being (Eisenberger et al., 1986; Eisenberger et al., 2020). Previous researchers have demonstrated the success of professional development programs which seek to develop and improve teacher resilience (Cook et al., 2017; Fernandes et al., 2019), but have also indicated the need for a better understanding of the

outcomes of POS in teachers and the mechanisms and processes which impact teacher resilience (Daniilidou et al., 2020; Drew & Sosnowski, 2019; Gu, 2014; Le Cornu, 2013; Mansfield et al., 2016). Upon completion of a professional learning program on resilience, teachers showed increased motivation, resilience, self-efficacy, positive experiences, work well-being, and work-meaning (Fernandes et al., 2019). Similarly, in a study of Midwestern United States secondary teachers, Cook et al. (2017) found that, compared to the control group, teachers who participated in a resilience training program showed reduced job-related stress, improved teaching self-efficacy, and stronger intentions to implement evidence-based classroom practices. Although POS has been associated with increased well-being (Caesens et al., 2020; Malik & Noreen, 2015), affective commitment (Marique et al., 2013), teacher empowerment (Bogler & Nir, 2012), teacher performance (Farooqi et al., 2019), and decreased turnover (Eisenberger, 2016; Eisenberger et al., 2002), there is a lack of causal evidence to better explain how POS contributes to teacher resilience. Therefore, it is critical for school leaders and schools as organizations to better understand how they can increase organizational support to sustain quality teachers, particularly because teachers have reported that good leaders help to decrease their levels of stress (Malik & Noreen, 2015) and increase their resilience (Day et al., 2009; Gu, 2014).

Support provided by schools as organizations is a crucial factor in teacher resilience (Arnup & Bowles, 2016; Day et al., 2009; Gu, 2014) and for maintaining a commitment to the profession (Beltman et al., 2011; Day et al., 2009; Peixoto et al., 2020). Although prior scholars have offered insight into the stressors teachers face and how resilience can serve as a buffer for challenging conditions, school leaders and

teachers themselves need to know how to better develop organizational structures and practices that can help teachers improve well-being and resilience. Furthermore, well-being is not only essential for teacher performance but also for helping teachers promote well-being and learning in their students (Cook et al., 2017) because life satisfaction is a strong predictor of teacher effectiveness (Duckworth et al., 2009).

Research Questions

To explore the connections between POS, teacher well-being, and teacher resilience, this study was framed by Relational-Cultural theory (Jordan, 2017; Jordan et al., 1991) and employed a mixed-methods design to examine the relationship between variables and probe the unique contexts and experiences of teacher participants in the study.

Specifically, the goal of the study was to investigate how POS contributed to teacher well-being and teacher resilience and to determine if teacher well-being mediated the relationship between POS and teacher resilience. Figure 1 displays a hypothesized structural model which depicts the research questions and proposed relationships between variables. It was hypothesized that POS predicts both teacher well-being and teacher resilience and that POS has a direct positive effect on teacher resilience with teacher well-being as a mediator of this relationship. To explore these relationships, the following research questions were proposed:

Quantitative Research Question 1 (RQ1): What is the structure of the relationships between perceived organizational support (POS), teacher well-being, and teacher resilience?

RQ 1A: Is the estimated population covariance matrix generated by the hypothesized structural model for perceived organizational support, teacher

well-being, and teacher resilience, consistent with the sample covariance matrix?

RQ_{1B}: How much of the variance in teacher resilience, both latent and observed, is accounted for by POS and teacher well-being? Of POS and teacher well-being, which variable accounts for the most variance in teacher resilience?

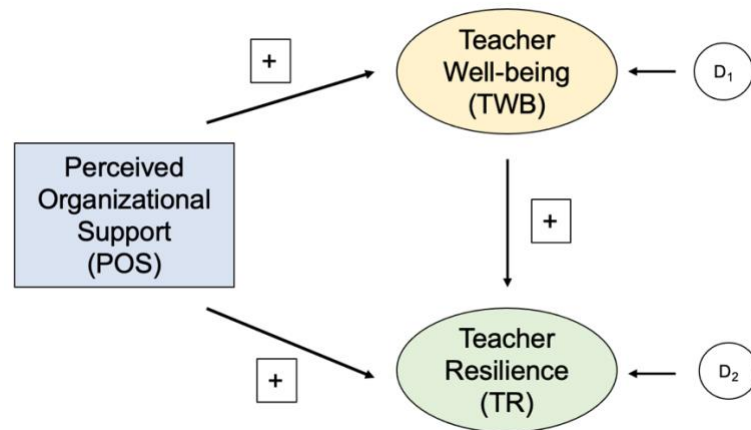
RQ_{1C}: What are the direct effects, indirect effects, and total effects among the variables, POS, teacher well-being, and teacher resilience included in the hypothesized structural model? Within the model, what is the relevant importance of various paths? Is the relationship between Perceived Organizational Support and teacher resilience mediated by teacher well-being?

Qualitative Research Question 2 (RQ2): How do teachers describe their experiences with organizational support and how does it contribute to teacher resilience in the school context?

Qualitative Research Question 3 (RQ3): What do teachers experience in their school contexts that contribute to their own well-being and resilience as a teacher?

Figure 1

Hypothesized Structural Model



Note: Hypothesized structural model of the relationships between perceived organizational support (POS), teacher well-being (TWB), and teacher resilience (TR). It was predicted that POS has a direct positive effect on TR with TWB as a mediator of this relationship. Disturbances are represented by the letter D, signifying the residual (unexplained) variation of associated variables.

Purpose and Overview of the Study

The purpose of this sequential explanatory mixed methods cross-sectional study was to investigate the relationships between POS, teacher well-being, and teacher resilience. Survey data was collected from a sample of secondary school teachers and then followed up with interviews of 10 individual teachers with high and low levels of resilience in an attempt to explain the survey results in more detail. In the initial quantitative phase of the study, structural equation modeling (SEM) was used to determine if POS was a predictor for teacher resilience and to analyze the structure of the relationships between the variables of POS, teacher well-being, and teacher resilience with teacher well-being as a potential mediator of teacher resilience. In the subsequent,

qualitative phase of the study, to illustrate subgroups and facilitate comparisons (Creswell & Poth, 2018), nested criterion sampling was used to select five teachers with high levels of resilience and five teachers with low levels of resilience. The qualitative research questions and some unexpected findings from the quantitative results were used to guide the development of semi-structured interview questions. The identified teacher subgroups were interviewed to examine the lived experience of teachers in terms of organizational support, well-being, and resilience in their professions and within their school contexts. A phenomenological approach was used to analyze the emergent themes of participants' lived experiences with the POS, teacher well-being, and teacher resilience. To provide an overall meta-conclusion for the results of the mixed methods, quantitative and qualitative data were integrated to convey findings on the relationships among the variables and through the unique lens of teachers and their experiences within school contexts. Possible implications for the study included: (a) providing a more in-depth understanding of how schools as organizations can collectively support teacher well-being and resilience through policies, practices, and relationships, (b) informing school leaders on how they can develop organizational practices that foster teacher well-being and resilience, and (c) to inform teachers how they can draw upon and advocate for organizational support to bolster their professional well-being and resilience.

Conceptual Framework

In this section, I will provide an overview of the conceptual framework for the study which included concepts from substantive content theories of organizational support theory (OST), well-being, and teacher resilience. The conceptual framework and its encompassing theoretical framework will be described in more detail in Chapter 2.

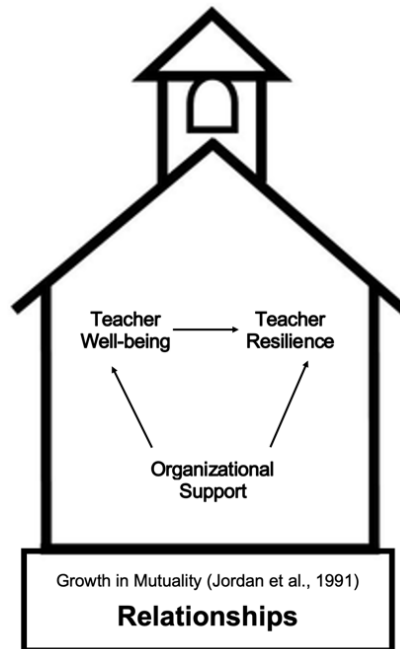
According to organizational support theory, people benefit from perceived organizational support because of two mechanisms, the norm of reciprocity (Gouldner, 1960; Levinson, 1965) and the fulfillment of socio-emotional needs (Kurtessis et al., 2015). Perceived organizational support is positively associated with attitudinal and behavioral outcomes (Rockstuhl et al., 2020) such as increased organizational commitment, job satisfaction and employee well-being, and decreased turnover rates (Kurtessis et al., 2015). Drawing from mechanisms of organizational OST, the conceptual framework of this study connected OST to the development of teacher well-being and teacher resilience because organizational support fulfills socio-emotional needs and elicits the norm of reciprocity in relationships, thus serving as a foundation for developing the components of well-being and resilience (Caesens et al., 2020; Caesens & Stinglhamber, 2014; Eisenberger, 2016; Guan & Frenkel, 2021).

Along with concepts from the substantial content theories of OST, well-being, and resilience, this study was grounded in the tenets of relational-cultural theory (RCT) as proposed by Jordan et al. (1991). According to RCT, human psychological growth stems from positive relationships because of the mechanism of growth in mutuality. When people are engaged in strong, positive relationships with others, mutual growth occurs and five positive benefits of relationships occur: zest, clarity, sense of worth, productivity, and an increased desire for more connections (Jordan, 2018; Miller & Stiver, 1997). Consequently, as depicted in the conceptual framework in Figure 2, it is conceived that relationships provide the foundation for how organizational support influences the development of teacher well-being and teacher resilience within school contexts. The concepts from these theories are bound within the schoolhouse context to

represent the focus of this study. Relationships among school employees represent the foundation of the schoolhouse as the rationale behind why and how these constructs are connected. If teachers experience positive and supportive relationships with school leaders and colleagues, then growth in mutuality can occur by bringing about the positive benefits of these relationships. Although teachers' well-being and resilience are influenced by factors outside of their school contexts such as upbringing, family relationships, and personal health, this study is bound by school context and, thereby, aims to investigate how organizational support within schools may influence teacher well-being and resilience.

Figure 2

Conceptual Framework of Relational-Cultural Theory and Substantive Content Theories.



Note: Conceptual framework linking the relationships between substantive content theories of organizational support, teacher well-being, and teacher resilience.

Background and Role of Researcher

As a mixed-methods study, I aimed to incorporate best practice strategies for both quantitative and qualitative research methods. According to Creswell and Poth (2018), qualitative researchers must situate themselves within a study to contemplate and disclose one's personal experiences, background, and culture and communicate how these aspects shape the entire framework of the study, from the development of the research questions to data collection to interpretation of results. Moreover, a positionality or subjectivity statement helps the researcher determine how personal experiences influence one's research and explains their personal relationship to the area of investigation (Decuir-Gunby & Schutz, 2017). In describing my background in this section, I have disclosed the personal connections which have fueled the development of this study.

I have worked in the field of education for 20 years, primarily as a classroom teacher but also as a curriculum specialist, teacher mentor, and fitness instructor. As a white female, I fall into the most commonly represented demographic groups for race and gender of Ohio teachers (Ohio Department of Education, 2021). For most of my career, I worked as a secondary science teacher in medium to large-sized public high schools and middle schools between (400-800 students) in Ohio. Currently, I work in administration in a medium-sized medical school (less than 500 students) at a public university in Ohio.

In addition to acknowledging one's personal experiences, reflection upon one's philosophical paradigm and worldview is vital for social science research, including educational research, because the assumptions contained within these frameworks guide decisions when designing studies (Kaushik & Walsh, 2019). The research questions and associated research design for this study stemmed from my philosophical paradigm of

pragmatism because of the utilitarian and functional capacity of this worldview (Creswell & Poth, 2018). Pragmatists view research as an approach to solve real-world problems (Decuir-Gunby & Schutz, 2017). As such, I believe research should serve a functional purpose in helping people by improving the overall function of organizations and the quality of life for individuals. Also, I am drawn to research that can reveal practical solutions and promote change (Klenke, 2018) within organizations because I strongly believe that research should have a purpose that is developed from actual social conditions instead of arbitrary exploration (Dewey, 1938). Pragmatism is also rooted in the belief that researchers should choose methodological approaches based upon the design that is best suited for the problem at hand (Decuir-Gunby & Schutz, 2017; Kaushik & Walsh, 2019). In terms of ontology, pragmatists believe knowledge is socially constructed but is influenced by one's personal experiences (Morgan, 2014). Thus, using this pragmatist lens, I proposed that components of teacher well-being and resilience are socially constructed, but also unique to individual realities and can best be studied through mixed methods research to capture the basic truths of the relationships between POS, teacher well-being, teacher resilience, and how any underlying processes of these relationships are guided by particular school contexts (Decuir-Gunby & Schutz, 2017).

Limitations and Delimitations

The limitations of the study were associated with the sample, measurement issues with the quantitative data, and the complexity of data analysis for the constructs of teacher well-being and teacher resilience. First, in terms of bias, response rates, self-report bias, researcher bias, and socially desirable responding may have affected results. Although an adequate sample size ($n = 254$) was obtained for the quantitative phase of

the study in terms of structural equation modeling analysis (minimum of 200) (Kline, 2016), incomplete coverage of the sample and nonresponse bias can lead to sampling bias, thus, results may be different from the target population regardless of how large the sample may be for a study (Remler & Van Ryzin, 2011). In this study, it is possible that teachers who had higher levels of POS, well-being, and/or resilience may have been more inclined to respond to the survey which may have led to results not fully representing generalizable relationships between variables. In an attempt to minimize this source of potential bias, teachers with low levels of resilience were selected for half of the follow-up interviews. Although the small sample for the qualitative phase ($n = 10$) may not have been entirely representative of the population, the selection of participants were stratified to match the target population of Ohio secondary school teachers as closely as possible. Similarly, volunteer bias occurs when study volunteers may differ from the population of interest (Remler & Van Ryzin, 2011). Volunteer bias was mitigated by assessing if volunteers differed in any way from non-volunteers by comparing participant demographics to population demographics. Bias from socially desirable responding, where participants are more inclined to provide socially acceptable responses (Remler & Van Ryzin, 2011), was delimited by using previously established reliable and valid survey instruments, ensuring anonymity to participants, and member checking. Finally, researcher bias, the bias introduced by the researcher's own beliefs, experiences, and values, was mitigated through reflexive practices throughout the study such as bracketing, memoing, and field notes (Creswell & Poth, 2018). These reflexive practices were used for bracketing of my own personal experiences which may have influenced the research design, findings, and interpretations (Creswell & Poth, 2018).

Possible limitations for the validity of results included measurement of the constructs of interest, confounding variables, lack of causal research design, and unintentional exclusion of former teachers who have high levels of resilience but chose to leave the profession. First, the measurement of POS and TWB included previously validated survey instruments that were designed for assessing general workplace POS and well-being and were not specific to the teaching profession. Additionally, there was evidence of overlap in how these constructs were measured by specific survey items. This overlap was delimited through a mixed methods approach and triangulation of data through the qualitative results (Creswell, 2021; Decuir-Gunby & Schutz, 2017).

Next, potential confounding variables included personal qualities and characteristics which may impact teacher well-being and resilience such as health, sleep, exercise, personal relationships outside of the workplace, support from family and friends, and socioeconomic status. Although these characteristics may have confounded quantitative results, triangulation through qualitative results served as a delimitation strategy by assessing for variables that contribute to teacher well-being and teacher resilience which may be outside of school organizational support. Next, since this study was observational and cross-sectional in design and no statistical test can prove causation, the results may hint at causation, but conclusions must not overinterpret any underlying causation between variables (Remler & Van Ryzin, 2011). A time-lagged, longitudinal, or experimental study would be needed to provide stronger evidence of any causal mechanisms between variables. Finally, in the interpretation of results, it was considered that the study may have excluded some teachers who had high levels of

resilience but chose to leave the profession, thus possibly limiting robust insight into how organizational support influences teacher well-being and resilience.

Definitions of Relevant Terms

Affect: the emotional component of subjective well-being which includes both positive (calm, content, awe, happy, excited) and negative (sad, frustrated, angry, confused, scared) feelings (Kansky & Diener, 2017).

Affective commitment (AC): an employee's emotional bond to their organization which determines their dedication and loyalty (Rhoades et al., 2001). Employees with high AC display a sense of belonging and identification with the organization that corresponds to increased involvement in the organization, eagerness to pursue organizational goals, and a desire to continue employment with the organization (Meyer & Allen, 1991).

Burnout: the prolonged response to ongoing emotional and interpersonal workplace stressors which leads to exhaustion, cynicism, and declined professional efficacy (Maslach & Leiter, 2016). Teacher burnout is characterized as teachers who are unhappy in their jobs, indicate thoughts or intentions of quitting, and exhibit reluctance to participate in reform initiatives (Santoro, 2018).

Job satisfaction: generally characterized as one's perception of fulfillment obtained from daily work activities and is associated with improved job performance (Judge et al., 2017). Evans (1997) proposed that teacher job satisfaction has two components: job fulfillment (how well one's job is performed) and job comfort (one's satisfaction with overall job conditions).

Life satisfaction: an individual's level of contentment with their overall self on a general level. Life satisfaction represents the cognitive component of subjective well-being (Kansky & Diener, 2017).

Perceived organizational support (POS): refers to the extent to which employees perceive they are valued by their organization for their contributions and supported in terms of their well-being (Eisenberger et al., 1986; Eisenberger et al., 2020). POS has been shown to bring about beneficial outcomes for employees and organizations.

Resilience: a two-dimensional construct, resilience is a dynamic process by which individuals respond with positive adaptation in the face of adversity (Luthar et al., 2000; Masten et al., 1990; Rutter, 2012).

Self-efficacy: refers to an individual's belief that they can control their motivation, behavior, and social environment to the extent that they are successful at influencing events in their lives (Bandura, 1977).

Subjective well-being (SWB): a combination of high life satisfaction, high positive affect, and low negative affect (Diener, 1984). Generally, individuals with high SWB have enough positive affect and perceptions of life satisfaction to counterbalance the negative aspects of their lives.

Teacher identity: One's professional identity is deeper than simply one's role in the workplace. Teacher identity is a combination of interacting personal, professional, and situational factors (Day et al., 2009) and represents how a teacher identifies with their profession. Each of these three dimensions can be

positively or negatively influenced throughout a teacher's career and tension can arise between dimensions (Day et al., 2009).

Teacher resilience: Teacher resilience can be conceptualized as a capacity, a process, and an outcome (Mansfield et al., 2016) and is unique to the profession and setting for a particular teacher (Mansfield et al., 2012). Teacher resilience is fluctuating, dynamic, and continuous and is defined as teachers' capacity to employ personal and contextual resources to manage the everyday challenges of the profession (Gu, 2014). As such, teacher resilience is viewed as a process whereby the personal traits and resources from their professional contexts interact over time (Mansfield et al., 2016), to enable teachers to thrive as an outcome by maintaining commitment, enthusiasm, professional growth, well-being, and satisfaction (Beltman et al., 2011; Mansfield et al., 2016).

Teacher well-being (TWB): characterized by components of the PERMA model of well-being (Seligman, 2011) (positive affect, engagement, relationships, meaning, and accomplishment) and how these components influence teachers' overall sense of satisfaction, engagement, and affect in their profession (Diener, 1984).

Chapter 2: Literature Review

Teacher shortages increased over the last 30 years in the United States (Carver-Thomas & Darling-Hammond, 2019; Sutchter et al., 2019) and teachers have faced ever-changing challenges in the profession due to changing policies and world events, such as the COVID-19 pandemic (Diliberti et al., 2021; Zamarro, 2021). To mitigate the problems behind teacher shortages, expanding our understanding of teacher resilience has offered a promising solution. Teacher resilience and the related construct of teacher well-being have been well-studied within the last few decades. Evidence has been demonstrated for promising outcomes related to teacher resilience for teachers, students, and schools. However, the assumed responsibility for strengthening teacher resilience typically has not rested on schools as organizations, but, rather, on teachers themselves as individuals. As such, scholars have called for further studies to examine organizational structures and practices to increase teacher resilience. When the development of teacher resilience is viewed through a perspective of collective nurturing on behalf of the school as an organization, akin to Jordan et al.'s (1991) concept of growth in mutuality, the role of organizational support becomes paramount. In response to this call for a collective sense of responsibility for sustaining the teacher workforce, a literature review was conducted to critically examine the previously established findings pertaining to organizational support, teacher resilience, and teacher well-being. A summary of the

relevant literature is provided in this chapter followed by a description of the conceptual framework used to guide the study.

Teacher Resilience

Resilience has been well-studied for over 40 years in a variety of disciplines and with many applications (Tusaie & Dyer, 2004). Early researchers of resilience focused on traits or characteristics that helped individuals thrive despite severe adversity (Garmezy et al., 1974; Rutter, 1987; Rutter et al., 1979). In particular, the beginning stages of resilience research examined children, socioeconomically disadvantaged individuals, and individuals demonstrating psychological coping (Garmezy et al., 1974; Rutter, 1987; Rutter et al., 1979; Werner et al., 1971). Early on, differences existed in the way scholars defined the construct of resilience. Some scholars characterized resilience as a fixed trait, while other scholars posited that resilience was more dynamic and contextual in nature. Based upon his early work, Garmezy (1974) defined resilience as the capacity of children to adapt and thrive in the face of adversity and noted three types of protective factors for resilience: personality traits such as self-esteem, family connectedness and lack of discord, and availability of support systems that reinforce coping efforts. Likewise, Rutter's (1987) influential work on psychosocial resilience asserted that resilience was not a fixed attribute but, rather, dynamic in nature and based upon protective factors from one's environment. Rutter (1987) also noted protective processes exist to counter risk when the process changes one's life from risk to adaptation. For example, when a child from a high-risk environment has a caring teacher, the process of personal support from the teacher can help the child to mitigate socioeconomic risk factors. These processes involve interactions between different protective factors, not just variables or factors

alone, including good intimate relationships, task accomplishment that improves self-esteem and self-efficacy, and opportunities such as extracurricular activities which may serve as turning points in increasing resilience (Rutter, 1987). Accordingly, Rutter (1987) outlined four main mechanisms of such protective processes of resilience: “1) reduction of risk impact, 2) reduction of negative chain reactions, 3) establishment and maintenance of self-esteem and self-efficacy, and 4) opening up of opportunities” (p. 316).

In contrast to Garmezy and Rutter (1983)’s proposed dynamic nature of resilience, Block and Block (1980) defined resilience as more of a fixed trait or personal characteristic is known as *ego resiliency*, which includes utilizing resourcefulness and flexibility when responding to stressful circumstances. The ego-resiliency model proposed that individuals high in resiliency are more competent and comfortable in the interpersonal realm of life and that gender differences exist in the workings of ego-resilience (Block & Kremen, 1996). Interestingly, Block and Block (1980) also described the application of ego-resilience as a dynamic capacity of an individual that is strategically employed to respond to one’s environment by exercising control to changing situations. Thus, resilience is dynamic in nature to the individual in how it is applied but the development of this capacity is not dynamically influenced by one’s contextual factors.

Luthar et al. (2000) conducted a critical evaluation of the construct of resilience in the research to date. Upon inspecting the extant literature, they took a strong stance on rejecting a fixed model of resilience, and, rather, urged resilience scholars to operationalize resilience as a dynamically influenced process involving adaptation in

response to significant adversity (Luthar et al., 2000). They urged that scientific representations of resilience must not “inadvertently pave the way for perceptions that some individuals simply do not ‘have what it takes’ to overcome adversity” (Luthar et al., 2000, p. 546) but that all individuals hold the capacity to develop resilience as a result of risk and protective factors. Most current scholars accept that resilience can develop as a result of being exposed to substantial adversity (S. Luthar & P. Brown, 2007; Luthar et al., 2000; Masten et al., 1990; Southwick & Charney, 2018) and is influenced by a dynamic mix of personal and contextual protective factors (Rutter, 2012; Ungar et al., 2013).

In light of this dynamic process model of resilience, scholars have examined resilience through varied lenses including the neurobiological basis of resilience and the social-ecological development of resilience. S. Luthar and P. Brown (2007) noted that social experiences and environments can alter brain chemistry and gene expression, which can thereby impact risk and protective factors and processes for resilience. Thus, S. Luthar and P. Brown (2007) declared that relationships offer a strong foundation for resilience,

Relationships lie at the “roots” of resilience...the presence of support, love, and security fosters resilience in part, by reinforcing people’s innate strengths (such as self-efficacy, positive emotions, and emotion regulation) with these personal attributes measured biologically and/or behaviorally. (p. 947)

In a similar fashion, based upon a systematic review of the research on the development of resilience, Ungar et al. (2013) developed a social-ecological lens for resilience which posits that individuals display a capacity to use their psychological, social, cultural, and

physical resources to individually and collectively employ resources to sustain their well-being. Within this social-ecological model, there are multiple, interacting layers of resilience within an individual's given context (Ungar et al., 2013).

Construct of Teacher Resilience

Stemming from an uptick of scholarly interest in the area of general resilience, researchers began to systematically investigate teacher resilience during the early 2000s with an early focus on the variables that sustain teachers and allow them to thrive in the profession (Bobek, 2002; Day et al., 2009; Kitching et al., 2009; Morgan et al., 2010). To summarize the extant literature to date, Beltman et al. (2011) conducted a review of teacher resilience to answer what factors enabled teachers to sustain their commitment, motivation, and effectiveness within the profession. Beltman et al. (2011) found that teacher resilience is a dynamic mix of individual risk and protective factors and is highly influenced by the organizational context of schools. From this review, risk factors for teacher resilience included negative self-beliefs, low confidence, difficulty asking for help, classroom management, high workload, and lack of support from leaders, colleagues, and personal relationships (Beltman et al., 2011). Protective factors for teacher resilience included self-efficacy, intrinsic motivation, altruism, strong caring leadership, and mentor and peer support (Beltman et al., 2011).

Based upon the foundation of teacher resilience research, the construct of teacher resilience can be best characterized according to Luthar and Brown's (2007) fluid model of resilience as fluctuating, dynamic, and continuous skill and capacity that allows teachers to manage the everyday challenges of the profession and sustain their commitment to their career (Brunetti & Marston, 2018; Day et al., 2009; Gu & Day,

2013). A dynamic relationship exists between identity and agency, commitment, teacher resilience, and effectiveness in the profession (Day et al., 2009). That is, teacher resilience is not fixed nor innate according to one's personality traits or pedagogical abilities in the classroom because it can change according to one's circumstances and relationships.

Dimensions of Teacher Resilience

Grounded in the dynamic characterization of resilience, other researchers have attempted to delineate teacher resilience as a multidimensional construct. Mansfield et al. (2012) asserted that four dimensions of teacher resilience exist based upon the descriptions of new and graduating teachers: profession-related, emotional, social, and motivational. Each dimension consists of skills and abilities which contribute to sustaining teacher commitment and motivation within the profession. The profession-related dimension includes teaching competence and skills, classroom management, facilitating learning, and being flexible and adaptable (Mansfield et al., 2012). The motivational dimension involves confidence and self-belief, persistence, perseverance, realistic expectations, and an optimistic outlook (Mansfield et al., 2012). The emotional dimension consists of a sense of humor, ability to bounce back, emotional regulation, and not taking things personally (Mansfield et al., 2012). The social dimension is comprised of asking others for help, interpersonal skills, the ability to be receptive to advice and feedback, and networks of personal and professional support (Mansfield et al., 2012). Building upon this multidimensional construct, Mansfield et al. (2016) proposed a framework of teacher resilience constituted by the most frequently reported factors of teacher resilience: personal resources (motivation, self-efficacy, sense of purpose,

optimism, and social-emotional competence), strategies (work-life balances, problem-solving, professional learning, goal setting, setting boundaries, and reflection), contextual resources (school leaders, colleagues, relationships with students, mentors, and school culture), and outcomes (well-being, commitment, job satisfaction, agency, and enthusiasm). Thus, teacher resilience is not just a skill, but rather, a three-pronged construct including a capacity, a process, and their associated outcomes: a capacity to navigate challenges in the profession by utilizing personal and contextual resources, a process whereby a teachers' individual characteristics interact with personal and professional contexts over time, and the outcomes of professional commitment, growth, and well-being (Beltman et al., 2011; Mansfield et al., 2016).

Similarly, Li et al. (2019) and Daniilidou et al. (2020) also concluded that teacher resilience is multidimensional in nature. In a study of primary and secondary Chinese teachers, Li et al. (2019) proposed that teacher resilience is multidimensional with three second-order latent factors: professional commitment and motivation, self-efficacy, and job satisfaction. Within these dimensions, school leaders had a significant influence on the three components of teacher resilience, more so than work conditions (Li et al., 2019). Daniilidou et al. (2020) studied primary teachers in Greece according to Mansfield et al.'s (2016) framework of teacher resilience and found support for the multidimensional model, including evidence that the dimension of emotional resilience had the highest predictive power for teacher resilience and fully mediated the relationship between teacher self-efficacy and teacher burnout and stress.

In addition to the construct of individual teacher resilience, several scholars have indicated a need for further developing a construct for collective teacher resilience. Gu

and Day (2013) posited that teacher resilience is the result of collective and collaborative efforts while Le Cornu (2013) documented the reciprocal and cumulative value of relationships in forming teacher resilience based upon mutual trust, respect, care, and integrity. Furthermore, based upon evidence of the benefits of reciprocal relationships between teachers and leaders, Gu (2014) contended that school communities must work towards building a collective sense of commitment and resilience, one that requires a group effort and organizational support. Likewise, Mansfield et al. (2016) stated that future research should investigate the collective responsibility and development of teacher resilience, possibly as a collective construct. Consequently, teacher resilience is not only viewed as an individual capacity to thrive in the profession but also as a collective sense of moral purpose and responsibility for schools to foster the development of resilience in educators and their organizations.

Summary of Relevant Research in Teacher Resilience

In this section, I will summarize the extant literature on teacher resilience about its antecedents, development, and outcomes. In particular, findings regarding the contextual basis of teacher resilience will be emphasized especially in terms of teachers' interpersonal relationships with school leaders.

Antecedents and Development of Teacher Resilience

Over the past 25 years, researchers of teacher resilience have sought to determine which personal and contextual risk and protective factors most strongly contribute to teacher resilience (Beltman et al., 2011). Risk factors compromise a teachers' capacity to be resilient, while protective factors foster the development of resilience. Rutter (1987)

characterized protective factors for resilience as those factors which counter risk when a process changes one's life trajectory from risk to adaptation. These protective factors involve a network of interactions and processes, not just the factors as isolated protective variables themselves (Rutter, 1987). In a like manner, Ungar et al. (2013) presented a social-ecological lens for resilience in which individuals display a capacity to use their psychological, social, cultural, and physical resources to individually and collectively employ resources to sustain their well-being. Similarly, in a study of Chinese nurses, Liu et al. (2020) found synergistic effects among positive resources that build resilience; one resource can trigger the increase of the effect of another resource creating a cumulative effect of protective interactions for resilience. Drawing from these ideas, there are multiple, interacting, layers of resilience within an individual's or teacher's context (Beltman et al., 2011; Gu 2014; Liu et al., 2020; Rutter, 1987; Ungar, 2013). Also, teachers have identified a variety of strategies for resilience including help-seeking, problem-solving, and managing difficult relationships (Castro et al., 2010) and have identified themes of resilience involving confidence and self-efficacy, persistence and problem-solving, and relationships and connectedness (Vance et al., 2015). Despite the consensus regarding the role played by context and a network of factors for resilience, Mansfield et al. (2012) argue that the contextual factors contributing to teacher resilience foster a unique set of skills and dispositions for resilience in the profession when compared to other similar professions such as social work or nursing.

Contextual Protective Factors of Teacher Resilience

Context matters in terms of characterizing resilience because environmental (contextual) protective factors have been found to be just as important if not more

important for teacher resilience than personal and individual factors (Li et al., 2019; Mansfield et al., 2012). Also, many scholars contend that personal factors of resilience arise from interactions with contextual factors, especially relationships (Castro et al., 2010; Gu, 2014; Jordan et al., 1991; Jordan, 2018; Le Cornu, 2013; Li et al., 2019; Luthar & Brown, 2007; Rutter, 1987). The capacity to be a resilient teacher is dynamic based upon influences of personal, relational, and organizational factors of a teacher's context including the socioeconomic status of the school (Gu & Day, 2103), school leaders, colleagues, relationships with students, and school culture (Mansfield et al., 2016). In a quantitative study using confirmatory factor analysis and structural equation modeling, Li et al. (2019) investigated resilience and perceived work conditions of Chinese teachers and found that two latent variables, quality of work conditions ($r = .23$) and relational trust ($r = .63$), significantly and directly predicted teacher resilience. The latent variable of work conditions was represented by measures of leadership support, teaching resources, teacher professional development, and workload while relational trust was represented by measures of relationships with colleagues, parents, students, and school leaders. The combination of school leaders, teaching resources, and workload and variety explained 63.67% of the variance in the measure of work conditions themselves, indicating a complex transactional relationship between factors that reinforce one another (Li et al., 2019). Notably support from school leaders significantly predicted the three components of teacher resilience: vocational motivation and commitment ($r = .39, p = .05$), self-efficacy ($r = .42, p = .05$) and job fulfillment and optimism ($r = .58, p = .05$) (Li et al., 2019). Hence, evidence exists for the connection between relationships with school leaders and the development of factors of teacher resilience.

Interpersonal relationships have been shown to impact general resilience (Hartling, 2008; Jordan, 2004; S. S. Luthar & P. J. Brown, 2007; Rutter, 1987; Wilson & Ferch, 2005) and teacher resilience (Castro et al., 2010; Gu, 2014; Le Cornu, 2013; Morgan et al., 2010; Vance et al., 2015). In the workplace, resilience can be enhanced by caring relationships (Wilson & Ferch, 2005). From the early stages of resilience research, Rutter (1987) and Garmezy (1983), posited that good intimate relationships foster processes of resilience, especially when individuals face challenging circumstances in life. For example, children are more likely to adapt and thrive despite adversity when they possess certain types of protective factors: personality traits such as self-esteem, family connectedness and lack of discord, availability of support systems that reinforce coping efforts (Garmezy & Rutter, 1983), and a relationship with at least one reliable adult (Masten et al., 1990). Luthar and Brown (2007) noted that social experiences and environments can alter brain chemistry and gene expression, which can thereby impact risk and protective factors and processes of resilience. Thus, Luthar and Brown (2007) asserted that "Relationships lie at the "roots" of resilience...the presence of support, love, and security fosters resilience in part, by reinforcing people's innate strengths (such as self-efficacy, positive emotions, and emotion regulation) with these personal attributes measured biologically and/or behaviorally" (p. 947). Likewise, Hartling (2008) found that the development of relationships helps people grow in the face of adversity through the following outcomes which are tied to well-being: enhanced intellect, improved sense of worth, improved sense of competence, empowerment, and an increased sense of connection.

Teacher resilience occurs within a complex network of relationships (Castro et al., 2010; Gu, 2014) including students, school leaders, colleagues, mentors, friends, and family (Ebersöhn, 2014; Gu, 2014; Le Cornu, 2013; Vance et al., 2015). Relationships with students, colleagues, and administrators are sources of job satisfaction and powerful motivators, especially when teachers see student progress and enjoy working with colleagues and young people (Marston et al., 2006). Moreover, teachers view their relationships with students and colleagues as critical factors in their own resilience (Vance et al., 2015).

In a four-year national research project on variations in the work and lives of teachers in England, Gu & Day (2013) found that 75% of resilient teachers reported that supportive relationships were a critical positive influence on their commitment to teaching. Based upon these results, Gu (2014) concluded that teacher resilience is relational and multidimensional based upon personal and contextual factors which are highly embedded in a teacher's network of relationships composed of three primary sets: teacher-leader, teacher-teacher, and teacher-student. Moreover, teacher resilience can fluctuate because of dynamic professional assets (vocational commitment, efficacy) and contextual factors (intellectual, social, and organizational environments) (Gu, 2014). In particular, reciprocal exchanges rooted in relationship mutuality (Jordan et al., 1991; Jordan, 2018), were critical to establishing relational trust and openness and recognition contributed to teachers' sense of effectiveness (Gu, 2014). Leadership qualities such as openness, fairness, respect, and compassion were essential to building a sense of community and a culture of caring and appreciation sustained motivation and commitment to the profession (Gu, 2014). Teachers who reported feeling support and

recognition from school leaders were more likely to maintain a sense of commitment and resilience ($\chi^2 = 7.155, df = 1, p < .01$) and felt more effective in the classroom as well (Gu, 2014). Furthermore, teachers reported that positive relationships were based on a collective sense of moral purpose and responsibility (Gu & Day, 2013), thus, establishing a sense of joint work towards student and teacher success.

Identity and Teacher Resilience

Teacher effectiveness can be attributed to a multitude of factors and cannot be attributed to simply age nor experience (Day et al., 2009). Many prior studies have found a relationship between teacher experience and student performance indicating that teachers with more experience are typically more effective in terms of student outcomes (Burroughs et al., 2019; Podolsky et al., 2019). However, other scholars have noted that the relationship between teacher experience and effectiveness is highly complex, nonlinear, and varies according to other factors such as school demographics and school support (Irvine, 2019; Rice, 2010). Many of these factors can change over the course of a teacher's career based upon context and relationships. One such dynamic factor is teacher identity, which has been shown to be a major influence in shaping teacher resilience (Day et al., 2009; Le Cornu, 2013). Although the process of teacher identity starts early in one's career (Brunetti & Marston, 2018), self-efficacy and resilience are linked to teacher identity (Le Cornu, 2013) and can be learned through the process of adaptation and in the presence of positive experiences (Beltman et al., 2011). In their longitudinal study of English teachers, as shown in Table 1, Day et al. (2009) found that six professional phases of the teaching career exist and that these phases are core moderators of teacher effectiveness.

Table 1*Day et al. 's (2009) six professional life phases of teaching*

Time in Profession:	Key identity features:	Examples of identity issues within the phase:
0-3 years	Commitment: support and challenge	<ul style="list-style-type: none"> • Developing efficacy in the classroom • High level of commitment • Support from school leaders crucial during this period • Student behavior had a negative impact
4-7 years	Identity and efficacy in the classroom	<ul style="list-style-type: none"> • Increased confidence • 78% of teachers had taken on extra roles within school which strengthened their identities
8-15 years	Managing changes in role and identity: Growing tensions and transitions	<ul style="list-style-type: none"> • Watershed phase in teacher development • Critical decisions made about progression of career • 76% sustained engagement, 24% loss of motivation
16-23 years	Work-life tensions: Challenges to motivation	<ul style="list-style-type: none"> • Work-life balance was key issue • Increased risk of career stagnation due to lack of support and student behavior • 52% experienced career advancement, 34% sustained commitment, 14% declining motivation and commitment
24-30 years	Challenges to sustaining motivation	<ul style="list-style-type: none"> • Struggle to maintain motivation in light of negative view of external policies • Secondary teachers more likely to lose motivation than primary teachers • 54% strong sense of motivation, 46% declining motivation
31+ years	Sustaining/Declining motivation: coping with change, looking to retire	<ul style="list-style-type: none"> • Overall, high commitment for the majority of teachers primarily based upon positive student relationships • Policy, health, and student behavior were negative issues • 64% maintaining commitment, 36% felt tired and trapped

Although these phases of teacher identity were generally associated with particular years of experience within one's profession, teacher identity was found to be neither fixed nor linear, but rather, dynamic and highly based upon one's context (Day et al., 2009). The ability to maintain effectiveness at different phases of a teacher's career

was influenced by teacher identity, both positively and negatively, because a dynamic relationship existed between identity and the development of agency, commitment, resilience, and effectiveness. (Day et al., 2009). Moreover, positive relationships with leaders and colleagues were critical mediators in developing a resilient teacher identity. Teachers reported that professional care from school leaders was a key part of a supportive school culture in addition to support from relationships with colleagues and family (Day et al., 2009). For those teachers who reported a decline in commitment, 58% cited poor leadership, 68% cited workload, and 64% cited student behavior, all factors that could be tied to organizational support because of organizational practices which may influence how teachers feel supported and valued.

Brunetti and Marston (2018) found that six overlapping themes emerged for the trajectory of teacher development and the development of teacher identity: validation, collaboration, relationships with students, continuing professional development, leadership, and work-life balance. According to these themes, the shape of teachers' identity is highly influenced by context at any given point in one's career especially based upon relationships with school leaders and colleagues, factors in teachers' personal lives, and external demands. Likewise, in her critical inquiry study of 60 Australian beginning teachers and their principals, Le Cornu (2013) noted that teacher identity was one of five conditions that emerged as the main conditions for teacher resilience. In particular, the importance of a culture that promoted a sense of belonging, social connectedness, and positive teacher identity (all components rooted in relationships with leaders, colleagues, and students) was associated with the development of teacher resilience (Le Cornu, 2013). A sense of mutual identification with colleagues and staff

helped teachers to successfully cope during unexpected and challenging events by helping them identify their contributions and develop a stronger sense of meaning and purpose (Le Cornu, 2013). Overall, teacher identity was linked to resilience and was concluded as essential for sustaining a commitment to the profession throughout the phases of one's teaching career.

Outcomes of Teacher Resilience

The documented outcomes of teacher resilience are wide-ranging including improved well-being (Gu, 2014; Mansfield et al., 2016; Pretsch et al., 2012), commitment (Collie et al., 2012; Day et al., 2009; Le Cornu, 2013; Mansfield et al., 2016) job satisfaction (Ainsworth & Oldfield, 2019; Arnup & Bowles, 2016; Pretsch et al., 2012), self-efficacy (Cook et al., 2017; Fernandes et al., 2019; Tait, 2008), increased student performance (Gu, 2014), reduced burnout and stress (Daniilidou et al., 2020; Fernandes et al., 2019), and increased retention (Arnup & Bowles, 2016). Upon completion of professional development programs designed to improve teacher resilience, teachers demonstrated increased motivation, resilience, self-efficacy, positive experiences, work well-being, and work-meaning (sense of purpose) (Cook et al., 2017; Fernandes et al., 2019; Schussler et al., 2018). Furthermore, Mansfield et al. (2016) proposed that teacher resilience is an outcome in itself. That is, to be resilient in the profession is to demonstrate sustained commitment and enthusiasm to thrive in the classroom.

One documented outcome of teacher resilience is self-efficacy. Self-efficacy refers to people's perception of their abilities to control their functioning in response to and over life events (Bandura, 1977). Applying Bandura's (1997) four sources of personal efficacy (repeated mastery experiences, vicarious experiences, social persuasion,

and emotional states), Tait (2008) concluded that resilience in teachers is linked to the development of teacher efficacy and supported by emotional competence. Notably, resilience played a role in new teacher success as fostered by social, emotional, and professional support (Tait, 2008). Thus, the positive encouragement gained through relationships with colleagues and school leaders contributed to the development of self-efficacy, and correspondingly, teacher resilience. In a study of 44 secondary Midwestern United States teachers, Cook et al. (2017) found that, compared to a control group, teachers who participated in a resilience training program showed improved teaching self-efficacy and stronger intentions to implement evidenced-based effective classroom practices. These results pointed to a need for school districts to develop organizational infrastructure that better supports teachers' well-being and resilience since self-efficacy was an outcome of the resilience training program (Cook et al., 2017). Stress and lower levels of self-efficacy are likely to decrease a teacher's effectiveness and willingness to employ evidence-based best practice instructional methods (Cook et al., 2017). Therefore, if schools can provide organizational support which contributes to the development of resilience, teacher self-efficacy is likely to improve. Furthermore, evidence exists to support the association between teacher resilience and student performance as a result of increased teacher self-efficacy and well-being (Gu, 2014).

In addition to the positive benefits of teacher resilience for self-efficacy, multiple studies have documented a negative correlation between both teacher resilience self-efficacy and teacher stress (Daniilidou et al., 2020; Evers et al., 2002; Fernandes et al., 2019; Schussler et al., 2018) because teacher resilience and self-efficacy serve as buffers for stress. Teacher stress is defined as the negative and unpleasant emotions which result

from challenging aspects of the job (Kyriacou, 2001) and teacher burnout is characterized as the physical, psychological, and emotional exhaustion that occurs when a teacher's interest in teaching begins to wane (Schwarzer & Greenglass, 1999). In a study of Greek primary teachers, Daniilidou et al. (2020) found that emotional resilience in teachers fully mediated the relationship between teacher self-efficacy and burnout/stress. Moreover, emotional resilience had the highest predictive power of four teacher resilience subscales (emotional, motivational, social, and professional) for reduced teacher stress (Daniilidou et al., 2020). In another study that utilized a mindfulness-based resilience intervention, teachers developed a higher level of stress tolerance and sense of self-efficacy, suggesting that how teachers conceptualize stress is more important than the amount of perceived stress (Schussler et al., 2018). In particular, emotion regulation was an important component of stress management for these teachers (Schussler et al., 2018). Altogether, these findings suggest that educational programs and teacher interventions should address how to build resilience factors to reduce teacher stress.

Job satisfaction has also been associated as a beneficial outcome of teacher resilience (Ainsworth & Oldsfield, 2019; Arnup & Bowles, 2106; Morgan et al., 2010; Pretsch et al., 2012). Teachers who have higher levels of resilience are more likely to maintain positive job satisfaction despite adverse events or challenging situations because they can employ resources and sustain commitment during hard times (Mansfield et al., 2016). Pretsch et al. (2012) found that resilience predicted job satisfaction in teachers and asserted that teachers need resilience to have a positive sense of well-being and build satisfaction within their careers. However, Pretsch et al. (2012) characterized psychological resilience as a stable personality trait, not a dynamic mix of factors as most

current research supports. Despite supporting evidence for teacher resilience as a predictor of job satisfaction, a complex relationship exists between a multitude of factors related to job satisfaction, including personal factors, well-being, burnout, motivation, student behavior, perceived leader support, and school climate (Ainsworth & Oldfield, 2019; Crossman & Harris, 2016; Klassen & Chiu, 2010), thus, the relationship between teacher resilience and job satisfaction may be more bi-directional and overlapping in nature versus one variable predicting the other. It would prove challenging to isolate teacher resilience and job satisfaction without considering this complex network of related variables.

Finally, increased teacher retention has been shown to be related to teacher resilience (Arnup & Bowles, 2016; Day et al., 2009). Lower levels of resilience are significantly related to higher turnover intention when controlling for job satisfaction and demographics (Arnup & Bowles, 2016). In particular, job dissatisfaction significantly predicted teachers' intentions to leave (Arnup & Bowles, 2016). Using hierarchical regression, Arnup and Bowles (2016) found that the combination of a model including teacher resilience, number of years teaching, and job satisfaction significantly predicted intention to leave the teaching profession ($R^2 = .32, p < .001$). Therefore, efforts should be placed on developing higher levels of teacher resilience to allow teachers to bounce back in the face of challenges, buffer the effects of stress, and contribute to improved teacher job satisfaction (Arnup & Bowles, 2016).

Problems in Teacher Resilience

The teacher workforce is threatened for several reasons: increasing levels of teacher turnover, decreased levels of job satisfaction, higher levels of stress and burnout,

and unique challenges brought on by the COVID-19 pandemic. In this section, I will summarize current trends in these issues in order to establish a background for the need to further examine teacher resilience.

Teacher Attrition and Retention

Unless changes to current education policies are made, teacher shortages in the United States are estimated to grow in the near future (Carver-Thomas & Darling-Hammond, 2019; Carver-Thomas et al., 2017; Sutchter et al., 2019). The overall teacher turnover rate in 2019 was roughly 16%, with 8% of teachers leaving the profession and 8% of teachers moving to different schools each year (Carver-Thomas & Darling-Hammond, 2019). Furthermore, one-third of teachers leave the profession within the first year (Groome, 2011), and 40-50% of new teachers leave within the first five years of their career which has been estimated to cost up to 2.2 billion dollars annually (Ingersoll et al., 2014). In addition to the financial expense, the burden of teacher turnover weighs heavily on student achievement (Carver-Thomas et al., 2017).

Attrition rates vary based upon geographical region, teacher preparation, content area, demographics, and socioeconomic status of schools. Regionally, teacher turnover is highest in the U.S. South, and, nationwide, cities have a higher turnover rate, 16-17%, compared to a more moderate rate in towns and rural areas, 14-15%, (Carver-Thomas & Darling-Hammond, 2019). In terms of content area, science, mathematics, special education, English language development, and world language teachers have the highest turnover rates (Carver-Thomas & Darling-Hammond, 2019). In particular, special education teachers are 80% more likely to turnover than regular education teachers (Carver-Thomas & Darling-Hammond, 2019). Title I schools, those schools which have a

high enough percentage of low-income students to receive federal funds under the Title I of Elementary and Secondary Education Act (Elementary and Secondary Education Act of 1965, n.d.), are at greater risk for teacher turnover. Teachers in Title I schools with over three years' experience have an 80% higher rate of turnover compared to teachers in non-Title I schools (Carver-Thomas & Darling-Hammond, 2019). Also, for teachers serving students of color, the turnover rate is about 70% greater (Carver-Thomas & Darling-Hammond, 2019). Regarding teacher preparation, teachers with little preparation leave the profession at rates two to three times greater than teachers with more sufficient preparation and licensure (Sutcher et al., 2016), and teachers who enter the profession through alternative licensure programs were found to be more than 25% likely to leave than traditionally licensed teachers (Carver-Thomas & Darling-Hammond, 2019).

Predictors of Teacher Turnover

Predictors of teacher turnover include school characteristics, teacher characteristics, subject areas, workplace conditions (Carver-Thomas & Darling-Hammond, 2019; Collie et al., 2011) moral concerns (Santoro, 2018), and accountability measures (Ryan et al., 2017). In Carver-Thomas and Darling-Hammond's (2019) quantitative study of U.S. teachers, they found that, of workplace condition factors, perceived lack of administrative support was the highest predictor for teacher turnover. Notably, teachers who reported poor support from school administration were more than twice as likely to leave the profession than teachers who reported positive support from school administration (Carver-Thomas & Darling-Hammond, 2019). Moreover, within the category of workplace condition variables, independent significant effects on teacher turnover were not found in other workplace conditions which included parent support,

student behavior, school resources, teacher influence on school decisions, job duties, and classroom management (Carver-Thomas & Darling-Hammond, 2019). However, the authors asserted that administrative support may encompass these other workplace conditions based on the impact that school leaders have on schoolwide operations (Carver-Thomas & Darling-Hammond, 2019). In a similar vein, based upon in-depth interviews with experienced teachers and teachers who have resigned, Santoro (2019) asserted that teachers primarily leave the profession not because of feeling overwhelmed by workplace demands, but because they feel demoralized by school policies that prevent them from carrying out their moral convictions of being a quality teacher. For example, a teacher who feels that state-test accountability measures force them into teaching to the test, may feel demoralized as a teacher and have greater intentions to leave the profession as a result. Thus, teachers may leave the profession when they do not feel supported by school leaders because school policies conflict with their moral concerns as a teacher (Santoro, 2018).

Job Satisfaction, Stress, and Burnout

Teachers who voluntarily leave the profession most often indicate that dissatisfaction was their primary reason for leaving (Carver-Thomas & Darling-Hammond, 2019; Sutchter et al., 2016). Those teachers who reported dissatisfaction most commonly cited the following contributing factors: administrator support, testing pressure, overall job satisfaction, and working conditions (Sutchter et al., 2019). However, in Ainsworth and Oldsfield's (2019) study which analyzed several significant predictors of job satisfaction, burnout, and well-being, the variance of job satisfaction, burnout and well-being were predicted by a varied combination of personal and contextual factors.

Also, in a study of 749 primary teachers in Ireland, a lack of positive events had a greater impact on teacher motivation and commitment than the presence of negative events, which were demonstrated to undermine teacher efficacy and commitment (Morgan et al., 2010). Thus, a complex interacting network of personal and contextual factors has been demonstrated to influence teacher job satisfaction, stress, and burnout.

Teachers point to stress and burnout as top factors contributing to levels of job satisfaction (Diliberti et al., 2021; Klassen & Chiu, 2010; Reilly et al., 2014). In a study of Irish primary teachers, teachers' perceived stress was found to explain unique predictive variance for low levels of job satisfaction (Reilly et al., 2014). Teachers' stress and burnout are primarily attributed to test-based accountability policies (Ryan et al., 2017), low student motivation, student behavior, workload, self-efficacy, change, school leaders, conflict with colleagues and leaders, and poor working conditions (Kyriacou, 2001). In terms of test accountability measures, a study employing structural equation modeling of data from 1866 teachers from three states in the U.S. identified that state-specific test accountability policies significantly predicted increased rates of teacher stress, burnout, and reported turnover intentions (Ryan et al., 2017). Furthermore, since teachers' self-efficacy beliefs are related to burnout levels (Evers et al., 2002), teachers who experience increased stress from high-stakes test accountability policies may experience a compounded sense of burnout if they feel they are not competent in their efforts towards students' state test performance. To make matters worse, Cook et al. (2017) noted that not one top teacher preparatory program in the U.S. included courses on teacher resilience, stress management, or well-being. Therefore, teachers may not be adequately trained nor prepared to deal with the stress associated with the profession.

Problems Related to the COVID-19 Pandemic

With the onset of the coronavirus disease 2019 (COVID-19) pandemic, new problems to the teaching profession have arisen while other issues have been exacerbated including higher levels of stress, job dissatisfaction, and intentions to leave the profession (Diliberti et al., 2021; Hamilton et al., 2020; Steiner & Woo, 2021; Zamarro, 2021). Most notably, in terms of teacher retention, teachers reported leaving the profession because of changes in work conditions due to the pandemic (Diliberti et al., 2021), and more teachers reported an intention to leave the profession as a result of the pandemic (Steiner & Woo, 2021; Zamarro, 2021). Diliberti et al. (2021) used a RAND corporation American Teacher Panel to identify former teachers who left the profession and found that nearly half the teachers (44%) who left the profession since March 2020 listed COVID-19 as the primary reason for leaving while the remaining 56% who left cited stress and dislike for school policies and practices as their primary reasons for leaving. Of all those who left the profession, stress was reported as the top reason for leaving overall (Diliberti et al., 2021). Demographically, there were no major differences in teachers who left based on sex, race, age, experience, nor education except for a slight increase in African American teachers who left (Diliberti et al., 2021). However, remote instruction was a unique COVID-related challenge for teachers who left, especially for older teachers, and frequent technology problems were an issue commonly reported by all teachers who left (Diliberti et al., 2021). Also, around half the teachers stated they would come back to teaching if more widespread vaccination occurred (Diliberti et al., 2021).

Intentions to leave the teaching profession are also on the rise after the start of the COVID-19 pandemic. Steiner and Woo (2021) presented results from a national teacher

survey fielded in January 2021 that indicated one in four teachers stated they were inclined to leave their job at the end of the school year compared to one in six teachers, on average, who reported a similar desire to leave before the start of the pandemic. Similarly, Zamarro et al. (2021) conducted a national survey of teachers in March 2021 which indicated that teachers were more inclined to leave the profession in the next five years as compared to teachers surveyed in March of 2020 who reported they were likely to leave in the next five years. Of teachers who reported an intention to leave, 23% reported COVID-19 as the primary reason, while 19% reported other reasons (Zamarro, 2021). Furthermore, teachers stated that they knew several colleagues who expressed a desire to leave the profession but did not follow through, thus indicating possible rising levels of job dissatisfaction (Zamarro, 2021). If teachers are less satisfied with their jobs as a result of the pandemic, this increased dissatisfaction could influence teaching performance and, in turn, affect student learning and academic progress.

Teachers who stated they were more likely to leave the profession as a result of the pandemic reported experiencing higher levels of stress than those teachers who were unlikely to leave or those who were already contemplating leaving the profession before the start of the pandemic. This COVID-related teaching stress was primarily related to dual modes of teaching instruction (simultaneous remote and in-person instruction), followed by changes in instructional models, changes in family responsibilities, health concerns for loved ones, and personal health risks of teaching in-person (Steiner & Woo, 2021). In particular, during modes of remote instruction, one in three teachers reported they were responsible for caring for their own children while teaching (Steiner & Woo, 2021). Overall, teachers reported frequent job-related stress at a much higher percentage

(78%) than other employed adults in the United States (40%) (Steiner & Woo, 2021), thus job-related stress, especially as a result of changes in teaching due to the COVID-19 pandemic, posed both immediate and long-term threats to the teacher workforce (Steiner & Woo, 2021). Therefore, it is crucial for school, state, and district leaders to develop better responses and resources for reducing teacher stress and supporting teacher well-being.

Perceived Organizational Support

Perceived organizational support (POS) refers to the extent to which employees perceive they are valued by their organization for their contributions and supported in terms of their well-being (Eisenberger et al., 1986; Eisenberger et al., 2020). POS has been demonstrated to have valuable outcomes for employee performance and well-being. The roots of POS research lie in studies of organizational commitment and its reciprocal nature (Eisenberger et al., 1986). That is, if leaders show concern for their employees' organizational commitment, then employees are more focused on how the organization is committed to them. Organizational support theory posits that POS develops as a result of employees' attempts to meet their needs for approval, affiliation, and esteem, and to appraise their value of work contributions (Eisenberger, 1986; Rhoades & Eisenberger, 2002). Thus, POS is used by employees to enhance their sense of obligation and commitment to the organization and correspondingly increases in-role and extra-role performance and decreases negative behaviors such as turnover and absenteeism.

The volume of POS research has steadily increased since the 1990s. Meta-analyses have indicated strong and consistent evidence of relationships of POS with its predicted antecedents and outcomes (Kurtessis et al., 2015; Rhoades & Eisenberger,

2002). Antecedents of POS consist of support from leaders, favorable job conditions, human resource policies and practices, fairness, organizational rewards, and perceptions of discretionary treatment (Eisenberger, 1986; Eisenberger et al., 2020; Kurtessis et al., 2015; Rhoades & Eisenberger, 2002). According to a cross-cultural meta-analysis by Rockstuhl et al. (2020), cultural differences exist in terms of the primary mechanisms of how POS enhances employee performance. In the West, POS was more strongly associated with a social-exchange mechanism that involves perceptions of obligation and organizational trust, whereas, in the East, POS was more strongly associated with organizational identity (Rockstuhl et al., 2020). Also, POS was more strongly related to job attitudes and performance in the East than in the West (Rockstuhl et al., 2020) and, overall, POS appears to have a stronger influence on positive employee outcomes in the East than in the West (Eisenberger et al., 2020). These cultural differences in POS have increased over time (Rockstuhl et al., 2020) and can perhaps be attributed to differences in cultural norms and attitudes of individualism in the United States. Despite these differences, POS has been positively linked to behavioral and attitudinal employee outcomes worldwide (Rockstuhl et al., 2020). Furthermore, recent findings indicate that levels of POS have increased over the last thirty years in the United States (Eisenberger et al., 2020). Overall, empirical evidence indicates that POS plays a crucial role in the employee-organization relationship and that favorable and supportive treatment of employees is a mutual win for both employees and organizations (Caesens & Stinglhamber, 2020; Eisenberger et al., 2020; Kurtessis et al., 2015).

Organizational Support Theory

Organizational Support Theory (OST) contends that employees develop perceptions about the extent to which their organization values their contributions and fosters their well-being (Eisenberger et al., 1986; Kurtessis et al., 2015; Rhoades & Eisenberger, 2002). Individuals develop POS based upon the universal belief that the organization has an advantageous or disadvantageous propensity towards them (Maan et al., 2020). Thus, if employees feel valued and cared for, their sense of obligation towards the organization increases in a reciprocal fashion depending on the level to which they receive favorable treatment, or decreases in response to unfavorable treatment (Kurtessis et al., 2015; Maan et al., 2020). Consecutively, POS triggers a social exchange process where employees develop a stronger sense of obligation towards the organization in meeting its goals and, thus, expects greater rewards in return (Kurtessis et al., 2015). POS is also proposed to fulfill socioemotional needs for employees which results in stronger organizational commitment and identification, greater desire to contribute to the success of the organization, and increased well-being (Kurtessis et al., 2015). These two mechanisms of POS, which will be outlined in more detail in the following sections, are referred to as the norm of reciprocity and the fulfillment of socioemotional needs.

Norm of Reciprocity

Initially, scholars proposed the norm of reciprocity (Gouldner, 1960; Levinson, 1965) as the primary mechanism by which POS influences positive employee outcomes (Eisenberger et al., 1986). The norm of reciprocity is grounded in two essential norms of human behavior, (a) people feel obligated to help people who have helped them, and (b) people feel they should not harm others who have helped them (Gouldner, 1960). The

norm of reciprocity is noted to be a universal human convention of any society (Gouldner, 1960; Terry, 2014) which invokes the reciprocal aspects of social exchange theory wherein employment is seen as the exchange of effort and obligation for concrete benefits from the organization such as pay and social resources (Cropanzano & Mitchell, 2005). Social exchange is a context one uses to identify the flow of resources as a social process which assumes that resources will only continue to be exchanged if there is a valued return contingent upon them (Emerson, 1976). Therefore, POS evokes the norm of reciprocity because employees feel valued, and experience an increased sense of obligation in return along with the expectation that stronger performance will be recognized and rewarded. In turn, employees with high levels of POS are predicted to display greater in-role and extra-role efforts which benefit the organization (Kurtessis et al., 2015). Levinson (1965) described this employee-organization relationship as a psychological contract that exists to meet the psychological needs of the employee wherein the norm of reciprocity stems from a process of fulfilling mutual needs between the employee and the organization. Additionally, people attach human-like qualities to their organizations which are used to build this psychological contract of exchange (Levinson, 1965). Levinson also argued that the process of reciprocation promotes the maintenance of psychological equilibrium, growth, and mastery because facets of personal well-being are supported by this process of the exchange of resources. Finally, the norm of reciprocity may safeguard against abuses of power in organizations by preventing the exploitation of employees with lower organizational status (Gouldner, 1960). That is, if organizations truly care for their employees and value their contributions, they will not be taken advantage of and employees will thrive in return

(Gouldner, 1960). In terms of psychological growth, reciprocation opens up opportunities through relationships with superiors by pushing employees towards receiving guidance and greater responsibilities (Levinson, 1965). As the individual employee grows, they can further contribute to the organization by more authentically giving of their own character towards the enhancement of the organization (Levinson, 1965).

Fulfillment of Socioemotional Needs

Organizational support theory (OST) is often predominantly associated with social exchange theory and the norm of reciprocity in the extant literature, but self-enhancement processes are equally emphasized by many OST theorists (Kurtessis et al., 2015; Rockstuhl et al., 2020). When a person has positive POS, it is posited that these feelings of being supported and valued lead to the fulfillment of socioemotional needs such as affiliation, approval, esteem, and emotional support and thereby lead to positive identification with the organization. In turn, stronger organizational identification is proposed to enhance affective organizational commitment because of the development of shared values between employee and organization (Rhoades et al., 2001). Moreover, POS may also enhance social bonds and one's ability to cope with stress (Eisenberger, 2016; Kurtessis et al., 2015; Terry, 2014). The perception of feeling cared about and valued may increase one's ability to successfully deal with stress or challenging situations by providing comfort, guidance, or resources (Eisenberger et al., 2016; Terry, 2014). People feel more equipped to face challenges head-on, or resilient when they know they have a supportive organization behind them (Terry, 2014). Also, scholars have posited that the OST mechanisms of the norm of reciprocity and the fulfillment of socioemotional needs work dually and synergistically because perceptions of being valued and cared for

contribute to both processes and, correspondingly, both processes increase the effects of the other (Guan & Frenkel, 2021; Liu et al., 2020). In short, if a person's psychological needs are fulfilled, they are more likely to give back, and when they increase their contributions or performance, they are more likely to feel supported and valued.

Summary of Relevant Research in Perceived Organizational Support

POS has been demonstrated to have a wealth of positive outcomes for employees and organizations across several fields of industry. In this section, I will summarize the empirical findings most relevant to the proposed study including outcomes of POS, supervisor/leader relationships to POS, possible mechanisms of POS, and research findings on studies of POS and teachers.

Outcomes of Perceived Organizational Support

Across many career fields, POS has been well-documented to affect a wide range of beneficial employee and organizational outcomes (Kurtessis et al., 2015; Rhoades & Eisenberger, 2002; Terry, 2014). For employees as individuals, POS has been shown to be related to increased job satisfaction, mood, organizational trust, well-being, perceived competence, in-role performance, and favorable work-family balance (Kurtessis et al., 2015; Rhoades & Eisenberger, 2002). In addition, POS is associated with reduced stress, burnout, withdrawal behaviors, and work-family conflict (Kurtessis et al., 2015). Of these employee outcomes, POS was most strongly related to affective commitment (Rhoades & Eisenberger, 2002), job satisfaction, and organizational-based self-esteem, while moderately related to work-family balance and weakly related to job self-efficacy (Kurtessis et al., 2015). Rhoades et al. (2001) found that supportive work conditions increased affective commitment as mediated by POS, which, in turn, reduced employee

turnover and withdrawal behaviors. Also, the positive associations between affective commitment and organizational rewards, procedural justice, and supervisor support were mediated by POS along with a positive association between POS and affective commitment over time, providing causal evidence as a mechanism (Rhoades et al., 2001).

In terms of outcomes of POS related to perceived supervisor or leader support, in a study of a variety of organizations, high levels of perceived supervisor support were positively related to POS, and POS completely mediated job turnover (Eisenberger et al., 2002). Thus, employees who felt their supervisor valued them and cared for their well-being showed increased POS and which was related to decreased turnover. Based upon years of POS research, Eisenberger et al. (2016) outlined eight tactics for optimizing POS in organizations:

- Favorable discretionary treatment
- Fairness in all management practices
- Set achievable goals and reward proportionately
- Offer individual benefits tailored to employee needs
- Support supervisors so they can promote POS
- Train subordinates to be supportive to enhance the norm of reciprocity
- Develop strong social networks
- Being informed of organizational support before the start of employment

Possible Mechanisms of Perceived Organizational Support

Many scholars have attempted to identify specific mechanisms between the relationships of POS and its documented outcomes for employees and organizations. These mechanisms stem from variables related to the norm of reciprocity and the

fulfillment of socioemotional needs. Proposed variables of interest to POS which have been studied include organizational identification, organizational prestige, affective commitment, self-efficacy, psychological empowerment, proactive personality, psychological resources, meaningfulness of work, and job crafting. Table 2 summarizes the major findings from studies that have explored variables related to mechanisms of POS on positive employee outcomes.

Table 2

Proposed mechanisms of POS on positive employee outcomes

Variable:	Author(s):	Key findings:
Organizational identification	Marique et al. (2013)	<ul style="list-style-type: none"> • Key mechanism in relationship between POS and affective commitment
	Rhoades et al. (2001)	<ul style="list-style-type: none"> • Leads to development of shared values between employee and organization
Organizational prestige	Marique et al. (2013)	<ul style="list-style-type: none"> • Moderates the relationship between POS and organizational identification
Self-efficacy, Work engagement	Caesens and Stinglhamber (2014)	<ul style="list-style-type: none"> • Partially mediated the relationship between POS and work engagement • POS positively predicts work engagement • Work engagement increased job satisfaction and extra-role performance and decreased psychological strain
Psychological empowerment, psychological resources	Caesens et al. (2020) Liu et al. (2020) Maan et al. (2020) Bogler and Nir (2012)	<ul style="list-style-type: none"> • POS positively influences psychological empowerment • Psychological empowerment mediates the relationship between POS and well-being • POS and teacher job satisfaction are mediated by teacher empowerment
Proactive personality	Maan et al. (2020)	<ul style="list-style-type: none"> • Proactive personality weakens mediation between POS and psychological empowerment and job satisfaction
Meaningfulness of work, Job crafting	Guan and Frenkel (2021)	<ul style="list-style-type: none"> • Positive relationship between POS and employee thriving is mediated by meaningfulness of work and job crafting
Resilience	Liu et al. (2020) Qiu et al. (2020)	<ul style="list-style-type: none"> • POS moderated the relationship between resilience and fatigue • Higher POS context showed a greater association between resilience and fatigue.

Organizational identification has been shown to have supportive evidence as a key mechanism in the relationship between POS and affective commitment because it leads to the development of shared values between employees and the organization (Marique et al., 2013, Rhoades et al., 2001). Affective commitment is an employee's emotional bond to their organization which determines their dedication and loyalty (Rhoades et al., 2001). Organizational prestige, the pride one takes in being part of an organization, has been shown to moderate the relationship between POS and organizational identification (Marique et al., 2013). Likewise, meaningfulness has been shown to play a role in mediating the relationship between POS and employee thriving (Guan & Frenkel, 2020). Self-efficacy was shown to partially mediate the relationship between POS and work engagement while POS positively predicts work engagement (Caesens & Stinglhamber, 2014). Moreover, work engagement increased job satisfaction and extra-role performance and reduced psychological strain (Caesens & Stinglhamber, 2014). Similarly, POS positively influenced psychological empowerment and well-being and psychological empowerment mediated the relationship between POS and well-being (Caesens et al., 2020; Liu et al., 2020; Maan et al., 2020). A few studies have demonstrated a relationship between POS and resilience. In a study of Chinese nurses, POS moderated the relationship between resilience and fatigue (Liu et al., 2020). That is, nurses who reported higher levels of support showed more resilience towards combating fatigue. In a similar study of Chinese doctors, a higher POS context was linked to a greater association between resilience and reduced fatigue (Qiu et al., 2020).

Studies more recently conducted have suggested a synergistic effect of POS-related variables (Guan & Frenkel, 2021; Liu et al., 2020; Stinglhamber & Caesens,

2020) because of the complex network of contextual and personal factors which can influence the effects of POS on positive employee outcomes. For example, using data from a time-lagged survey of 209 employees, Guan and Frenkel (2021), used time latent structural equation modeling to demonstrate the direct positive relationship between POS and employee thriving as mediated by job crafting and work meaningfulness. Based upon these findings, Guan and Frenkel (2021) highlighted the need for organizations to implement supportive practices and climates which foster innovative and meaningful workplaces in order to capitalize on employee strengths. Additionally, Stinglhamber and Caesens (2020) called for future studies which are multi-level in nature in order to further refine the understanding of relationships between POS and the complex web of interactions between personal and contextual factors which affect employee thriving. For example, a study that investigates both organizational and individual level variables could potentially provide insight into how contextual factors of organizational support affect employees at the individual level in terms of resilience and thriving.

Perceived Organizational Support and Teachers

Although POS has been well-studied in other fields, there has been limited research in the area of POS and teachers. Of the POS studies conducted with teachers, notable findings include the effects of POS on job satisfaction (Bogler & Nir, 2012), teacher performance (Farooqi et al., 2019), resilience (Deng et al., 2020), well-being and confidence levels, and decreased occupational stress (Malik & Noreen, 2015). In a study of Israeli primary teachers, POS predicted job satisfaction and was mediated by teacher empowerment (Bogler & Nir, 2012). Teacher empowerment (self-efficacy) was the strongest predictor of intrinsic job satisfaction, earned status, and respect (Bogler & Nir,

2012). Furthermore, teacher empowerment explained 30% of the variance in job satisfaction and teacher empowerment had a much stronger mediating effect on teacher job satisfaction in high POS contexts (Bogler & Nir, 2012). Hence, if a teacher experiences high levels of POS in their school, they are more likely to have strong self-efficacy which contributes to increased job satisfaction and would be more likely to remain in the profession.

In terms of stress, well-being, and resilience, POS shows beneficial outcomes for teachers. Malik and Noreen (2015) found significant negative relationships between occupational stress and well-being and occupational stress and POS. However, POS moderated the relationship between occupational stress and affective well-being (Malik & Noreen, 2015). When POS was high, stress decreased and teachers confidence levels increased which teachers attributed to feeling valued and as if they are making a contribution (Malik & Noreen, 2015). The authors also concluded that their findings indicate that a lack of support, or low POS context in schools, leads to increased occupational stress and a corresponding decrease in teacher performance (Malik & Noreen, 2015). Likewise, Deng et al. (2020) found that school support had positive impacts on five components of creative teaching, especially empathy and problem solving. In turn, empathy and problem solving were mediators of and had a multi-level effect on teacher resilience (Deng et al., 2020). Also, the impact of school support on teacher resilience was more significant than the impact of teacher personality (Deng et al., 2020). Thus, the role of POS context in shaping teacher resilience and performance was highlighted. Finally, Farooqi et al. (2019) observed that POS had a significant relationship with teachers' performance. Notably, the POS factors of fairness,

organizational rewards, and job conditions were significantly related to power of expression in teachers (Farooqi et al., 2019).

Teacher Well-being

The development of the construct of teacher well-being was rooted in concepts of general well-being, which includes psychological well-being and subjective well-being. Later in this chapter, relevant research surrounding teacher well-being will be summarized, but, first, a summary of general well-being is presented in order to provide a foundation for how the construct of well-being will be applied in this study.

Historically, the construct of well-being has been categorized as either psychological well-being or subjective well-being. Psychological well-being is typically focused on eudaimonic (the fulfillment of meaning and accomplishment) aspects of life, while subjective well-being is focused on hedonic (matters which deal with the pursuit of a pleasant and happy life) aspects of life. Most scholars agree that subjective well-being is multidimensional in nature and overlap exists between the elements of psychological well-being and subjective well-being. The extant literature holds that subjective well-being is an expansive phenomenon which involves affective, behavioral, and cognitive components (Diener, 1984; Ryff, 1989; Seligman, 2011). However, different theoretical approaches of the components of subjective well-being have been proposed. Diener (1984) defined subjective well-being as the combination of high life satisfaction, high positive affect, and low negative affect. Diener (1984) also conceived that well-being is affected by an immense number of factors in an individual's life but has three hallmark features: it is subjective, includes positive measures, and includes a global assessment of all aspects of life. Although many constructs of subjective well-being center upon

hedonic elements of well-being, such as positive emotions, other constructs include eudaimonic elements as well, such as self-actualization and competence (Kun & Gadanez, 2019). For example, Ryan and Deci's (2000) Self-determination theory focuses on the fulfillment of three basic eudaimonic psychological needs: autonomy, competence, and relatedness. Ryff (1989) proposed a multidimensional model of well-being comprised of six factors: autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance. Keyes (2002) incorporated three facets of well-being into a model of mental health: emotional, psychological, and social, thus, demonstrating the multi-dimensional aspects of well-being in terms of mental health as well. Some scholars have attempted to better delineate well-being in terms of varying contexts and more specific variables. Bakker and Oerlemans (2011) developed a model of workplace well-being based on the Job-demands Resource model which is comprised of three positive domains (work engagement, happiness at work, and job satisfaction) and two negative dimensions (burnout and workaholism).

Not surprisingly, the field of positive psychology, which focuses on the psychological effects of positive emotions and character traits which help people thrive, has approached the study of subjective well-being from many angles. Seligman (2002) first proposed a model of well-being he coined as authentic happiness. In this model, three aspects of life contribute to a happy life overall, a pleasant life, an engaged life, and a meaningful life (Seligman, 2002). Later, Seligman (2011) went on to revise his original model of happiness into a broader theory of subjective well-being which included five primary components: positive affect, engagement, relationships, meaning, and accomplishment (PERMA). Additionally, Lyubomirsky and Layous (2013) introduced a

positive activity model of well-being in which they proposed four mediating variables of positive activities on well-being: positive emotions, positive thoughts, positive behaviors, and need satisfaction.

Because a variety of well-being models have been applied as the basis of teacher well-being, including the psychology of well-being, positive psychology, psychology of work and organizations, specific teacher well-being, health science, and other areas, it recommended that researchers studying teacher well-being select and declare which model is incorporated into their conceptual frameworks (Hascher & Waber, 2021). Specifying a clear conceptual foundation for a latent construct is needed for sound operationalization (Remler & Van Ryzin, 2011). The PERMA model of well-being, which has been selected as the underlying conceptual basis for teacher well-being in this study, will be outlined in more detail in the next section.

PERMA Model of Well-being

In his PERMA model of well-being, Seligman (2011) asserted that five pillars of well-being each contribute to human flourishing, positive affect, engagement, relationships, meaning, and accomplishment. These elements contain both eudaimonic and hedonic aspects of life, thus distinguishing PERMA from other theories of subjective or psychological well-being. People pursue each of these five elements of PERMA independently of other elements and each element can be measured separately (Seligman, 2018; Seligman, 2011). Additionally, there are specific interventions or pathways for each element of PERMA. For example, a person could engage in writing gratitude journals in order to increase positive emotions or positive affect. Similarly, an

organization that provides annual awards or recognition for performance utilizes a pathway for helping employees develop a stronger sense of accomplishment.

Positive affect (P) represents the positive emotions people feel in response to events, behaviors, or activities. More specifically, positive emotions can include excitement, joy, hope, awe, serenity, gratitude, love, amusement, and pride (Fredrickson, 2013). According to Fredrickson's (2001) Broaden and Build theory of positive emotions, positive affect allows one to broaden their thought-action repertoire which allows them to build resources for future experiences and becomes cumulative over time. For example, if a person expresses gratitude for an event or person in their life and this occurs regularly over time, they strengthen their motivation to seek that person or event as a resource when facing new or challenging situations, thus building resilience. Moreover, as people experience positive affect during a behavior, nonconscious motives are developed for that practice or activity, and, therefore, grow even stronger over time as they are held up by personal resources (social, cognitive, or psychological) and these positive emotions even quell negative emotions (Fredrickson & Joiner, 2002; Tugade & Fredrickson, 2004; Van Cappellen et al., 2018).

Engagement (E) represents the state of consciousness when one is fully engaged in the present moment and completely focused on the task at hand. This type of engaged focus is rooted in the concept of "flow" as characterized by Csikszentmihalyi (1997). Flow is a mental state in which a person is fully engrossed in an activity with feelings of energy, focus, and complete involvement. Often, a person experiencing flow will lose track of time and awareness because they are so consumed by the activity and in such a state of enjoyment that they even ignore bodily needs such as hunger or using the

bathroom (Csikszentmihalyi, 1997). Seligman (2011) argued that engagement involves more than simple pleasure-seeking and contributes to well-being more strongly than pursuing pleasurable activities because it relates to other aspects of well-being and personal growth including meaning, intelligence, and skill acquisition. For example, a person who is fully engrossed in their academic research is likely to feel a sense of meaning and satisfaction in the learning and excitement that results from their state of flow.

Seligman (2011) posited that relationships (R) are an essential component of well-being because humans are drawn to social connections and have inherent socioemotional needs to feel valued, supported, and loved by others in their lives. From an evolutionary standpoint, humans are social creatures because a strong natural motivation to connect and help others promotes the survival of our species. People seek social belonging and thrive when positive and supportive relationships are present in their lives (Diener & Seligman, 2002). Positive relationships are a source of positive emotions, bonding, and provide a safety net of resources when people face challenging times in life. Furthermore, evidence supports that relationships reduce cognitive decline and improve physical health as people age (Siedlecki et al., 2014). Finally, according to Relational-cultural theory (Jordan, 2017; Jordan et al., 1991), relationships bring about five positive benefits, zest, clarity, sense of worth, productivity, and an increased desire for more connections; which contribute to one's overall well-being.

Meaning (M) or a sense of purpose was also proposed by Seligman (2011) as a pillar of well-being because it is an innate human quality. People strive to develop a sense of meaning in their lives in a variety of capacities: work, religion, family, politics,

volunteer or service activities, helping others, and creative pursuits or hobbies. Often a sense of meaning is derived from doing something or belonging to something larger than oneself to help the greater good. For example, a person who is an active environmentalist might gain a sense of great meaning in helping the environment through their habits and activism. Additionally, a sense of purpose may help people during hard times if they can focus on what matters most to be resilient and overcome adversity (Seligman, 2011).

Accomplishment (A) represents seeking a sense of mastery, competence, or success for its own sake. Seligman (2011) asserted that people pursue a sense of accomplishment separate from other elements of well-being. Although people may feel positive emotions, social connections, or an enhanced sense of meaning as a result of their accomplishments, the pursuit of improvement and growth is a strong human drive on its own. People seek accomplishment through a variety of means, such as sports, hobbies, professions, and social recognition. Duckworth and Gross (2014) described the role of self-control and grit in achieving accomplishments. Self-control involves a short-term focusing of one's actions towards a goal despite tempting alternatives, while grit represents more of a long-term type of perseverance towards a challenging goal over time and while facing substantial obstacles (Duckworth & Gross, 2014). Both qualities not only contribute to a sense of mastery but also help people in their pursuit of accomplishments.

Refinement of the PERMA Model of Well-being

Although the PERMA model of well-being has been well-supported by empirical research, it has also faced scrutiny. Seligman (2008, 2018), along with other positive psychology researchers (Donaldson & Donaldson, 2020; Donaldson, Heshmati, et al.,

2021; Goodman et al., 2018; Khaw & Kern, 2014), have attempted to refine and critique the PERMA model of well-being. Upon further consideration of findings supporting health as a contributing factor to well-being and longevity, Seligman (2008) proposed the idea that physical health should be established as a sixth building block of well-being, which was later incorporated into Butler & Kern's (2016) scale of well-being, the PERMA-H. Seligman (2008) described physical health as more than just the absence of disease, but the combination of good status of biological, subjective, and functional measures that maintain physical health. Other researchers have attempted to examine the potential cultural variations in the PERMA model of well-being. In a mixed-methods study of Malaysian citizens that aimed to compare cultural differences in PERMA, Khaw and Kern (2014) found that a three-factor (P/RM/AE) model fit the data better than five established factors of PERMA, thus, possibly suggesting that PERMA may be contextually bound. Although the five PERMA element constructs were represented in the sample, other constructs, such as religion, health, and security, were also present. Thus, Khaw and Kern (2014) asserted that well-being may be unique in other cultures according to cultural norms and values. However, Khaw and Kern (2014) only based their primary analyses on the 15 items from the PERMA profiler (Butler & Kern, 2016) which assess the five main elements of PERMA, not the extra measures which assess health or loneliness.

In an attempt to compare constructs of well-being, Goodman et al. (2018) concluded that no difference existed between Diener's (1984) model of subjective well-being (SWB) and PERMA, thereby presenting substantial criticism of Seligman's (2011) PERMA model. Goodman et al. (2018) found a latent correlation of 0.98 between the

PERMA and SWB. Also, a moderately high correlation existed between each element of PERMA (.37-.79, average = .61), and using exploratory structural equation modeling, they found two highly related factors ($r = .85$) that were unaccounted for by SWB and PERMA (Goodman et al., 2018). Thus, Goodman et al. (2018) contended that Seligman (2011) lacked theoretical or empirical rationale behind PERMA regarding why these particular five elements were chosen and not others and that newer models of well-being do not necessarily represent different types of well-being. In response, Seligman (2018) refuted that the building blocks of well-being are represented by PERMA, not well-being itself and that Goodman et al.'s (2018) findings only strengthened his theory. Further, Seligman (2018) clarified PERMA with the following points:

1. The five elements of PERMA strongly contribute to SWB (hence the 0.98 correlation).
2. People pursue each element of PERMA independently of other elements.
3. Elements which contribute to SWB should be exclusive and exhaustive (PERMA is not however exhaustive, as more exploration of potential elements is needed).
4. Specific interventions exist for each element of PERMA.
5. The list of elements for PERMA is parsimonious.
6. Each element of PERMA is well-defined and can be measure independently.

Further, Seligman (2018) explained that there are causal connections between the elements of PERMA which account for the strong cross-correlations in Goodman et al.'s (2018) study but these cross-correlations might be due to a third variable and require more exploration. In addition, he called for future studies with measures beyond self-report to reduce bias, and studies to determine which interventions impact which

components of PERMA the most and which practices only affect global SWB (Seligman, 2018).

Through a robustly designed study, Donaldson, Heshmati, et al. (2021) presented evidence in support of the five building blocks of PERMA and added further refinement to the model. In order to reduce self-report bias, pairs of self-report and coworker collateral reports were used, demonstrating that the five elements of PERMA were correlated with and predicted SWB and the five building blocks of PERMA individually (Donaldson, Heshmati, et al., 2021). The multi-method paired participant data showed that co-worker reports of PERMA and PF-W accounted for 39% of variance in self-reports of SWB (Donaldson et al., 2020). However, based upon their previous work (Donaldson & Donaldson, 2020), they proposed four additional elements of well-being: physical health, mindset, environment, and financial security and referred to this revised model as the Positive Functioning at Work model (PF-W) (Donaldson, Heshmati, et al., 2021). Using this new model, PF-W produced stronger predictive value of SWB ($R^2=.65$, self-report, $R^2= .44$ coworker) as compared to PERMA alone ($R^2=.57$, self-report, $R^2= .40$ coworker), although both models proved significant. Thus, Donaldson et al. (2021) noted that, aligned with Seligman's (2018) proposition, PERMA may be exclusive but not exhaustive as a representation of the core elements of well-being.

Additional scholars have attempted to tease out the relationships between the cross-correlations of PERMA elements. For example, positive emotion has been shown to be a predictor of accomplishment (Goh et al., 2021). In a cross-cultural sample of adult workers, positive relationships and meaning were significant mediators of the

relationship between positive emotion and accomplishment, while engagement was not significant mediator between positive emotion and accomplishment (Goh et al., 2021).

Summary of Relevant Research of Teachers and Well-being

Teacher well-being (TWB) has been extensively studied around the world. However, researchers have examined the construct of TWB using many different perspectives and frameworks. In a systematic meta-analysis of TWB, Hascher and Waber (2021) identified six main research fields of TWB: the psychology of well-being, positive psychology, psychology of work and organizations, specific teacher well-being, health science, and other areas (listed in decreasing prevalence of published studies). Due to this wide variety of perspectives, Hascher and Waber (2021) recommended that future researchers should specify and justify which model of TWB is employed in order to clarify the collective understanding of the nature of TWB. For instance, if a study discloses the rationale behind a positive psychology approach, then findings bear more meaning and provide clarity of interpretations. Readers can better understand results when the lens used to interpret those results is made explicit. Further, Simmons et al. (2019) asserted that "discussing well-being through a language of possibility is important" (p. 853).

Over the last 20 years, the burgeoning findings of TWB research has included evidence for predictors of TWB, causal mechanisms, outcomes, effective measurement instruments to assess TWB, and newly proposed frameworks. The most frequently cited significant predictors of TWB were: general health/vitality, workload job demands (negative), job satisfaction, feelings of competence, commitment, positive relationships, support from leaders (Hascher & Waber, 2021). Notably, contextual factors (Cook et al.,

2017; Renshaw et al., 2015) and self-efficacy (Aelterman et al., 2007; Bower & Carroll, 2017) are highly influential, and social relationships play a pivotal role in TWB (Aelterman et al., 2007; Hascher & Waber, 2021; Simmons et al., 2019). Hascher and Waber (2021) emphasized the role of relationships in TWB by stating, "Given their crucial role in the profession, social interactions seem to be the heart of TWB and are crucial in fostering it" (p.18). Thus, well-being is grounded in teachers' experiences, particularly the cultures and relationships they experience in schools. Moreover, the need for community and support was described as essential to TWB (Simmons et al., 2019). Stemming from these results, it was suggested that policymakers, leaders, and researchers should intentionally develop and examine practices that foster well-being in teachers because such practices can help create a more stable and emotionally sturdy workforce of teachers who are better equipped to use best practice instruction (Cook et al., 2016). As such, schools as systems could be designed to support collective well-being amongst staff (Simmons et al., 2019) in order to improve not only teacher retention and flourishing, but promote well-being in students as well (Cook et al., 2016).

In assessing TWB, several instruments have been developed and novel frameworks have been recommended. Renshaw et al. (2015) developed the Teachers Subjective Wellbeing Questionnaire (TSWQ), which was characterized by two latent factors, prosocial relations and self-efficacy. For teachers undergoing classroom challenges, the TWSQ had strong short-term predictive validity for psychological distress and accounted for roughly 50% of the variance in teacher stress and emotional burnout (Renshaw et al., 2015). In a similar way, Collie et al. (2015) designed the Teacher Well-being scale to assess three factors of teachers' work-related well-being: workload,

organizational factors, and student-relationships. All factors were related to external constructs of teacher stress, job satisfaction, and general well-being, but were distinct because factors only shared a moderate amount of variance (Collie et al., 2015). Based upon their results, Collie et al. (2015) and others (Hascher & Waber, 2021), have recommended that TWB be further examined alongside related constructs (e.g., organizational commitment, organizational support) and outcomes associated with TWB because, in general, the outcomes of TWB have been sparsely studied and most frequently examined through cross-sectional studies (Hascher & Waber, 2021). Of those findings offering insight into the outcomes of TWB, evidence supports connections to job satisfaction (Tang et al., 2018), positive emotions (Bower & Carroll, 2017), quality teaching (Turner & Theilking, 2019), reduced stress and burnout (Renshaw et al., 2015), organizational commitment (Kern et al., 2014), and more.

Finally, in a recent working paper published by the Organization for Economic Cooperation and Development (OECD), Viac et al. (2020) proposed a comprehensive framework for teacher well-being which has four components: cognitive, subjective well-being, physical & mental, and social. These four dimensions are related but distinct. Each dimension can be considered both an outcome and an enabling factor in helping teachers combat stress and burnout (Viac et al., 2020). In this proposed study, the PERMA model of well-being will be adopted into the conceptual framework because it best aligns with current findings of teacher well-being and corresponds to the five good things of relationships as proposed by the guiding tenets of relational-cultural theory (RCT) (Jordan et al., 1991) as a theoretical framework.

PERMA as Model of Teacher Well-being

Although teacher well-being has been highly researched, studies involving PERMA as a framework for teacher well-being have been relatively sparse, especially in the United States. Of the small number of studies conducted to date, researchers have yielded promising and insightful results about how the building blocks of PERMA influence teacher flourishing in terms of well-being, resilience, and its impact on students. In a study of Turkish teachers using phenomenology, Sahin et al. (2019) found that most teachers described a happy work environment as one where they experience the elements of PERMA, particularly positive emotions in the context of relationships. All factors of PERMA were described as part of a happy work environment, with a strong emphasis placed on the value of relationships, and a low reporting of the element of meaning. Teachers valued the following in their professional relationships: collaboration, cooperation, mutual love and respect, support from administrators, and positive emotions (Sahin et al., 2019). Similarly, in a study of Australian primary teachers, relational space (physical and intentional) was important for building relationships by helping to promote bonding and sharing of positive emotions (Wessels & Wood, 2019). Using participatory action research and the application of positive psychology practices guided by PERMA, teachers reported increased emotional awareness, positive emotions, and empathy, all which they noted as factors that deepened their relationships with one another (Wessels & Wood, 2019). More strikingly, the teachers described the end result as one of lasting change, because, although their professional circumstances did not change, their mindset and perspectives changed for the better by helping them to approach challenging situations with increased positivity. Likewise, Crider (2021) found evidence for the

strong influence of the relationship dimension of PERMA as well as the power of mindset for flourishing. The relationship dimension of PERMA influenced every other element in terms of well-being for teachers. Shared teacher experiences with PERMA included: positive mindset, valuing self-care, strengths and interest aligned with teaching content, engaged through extra-curriculars, building relationships with students and colleagues, finding meaning in their impact on students, feeling motivated by accomplishments (Crider, 2021). Moreover, teachers perceived their ability to flourish as within their control when they applied a positive mindset and well-being strategies (Crider, 2021).

In a study of Australian teachers who applied PERMA based well-being strategies, teachers showed improved perceptions of their own teaching practices as well as improved student learning, behavior, and engagement (Turner & Theilking, 2019).

Eight notable findings were generated as reported by teachers in the study:

- Less stress, more relaxed, more positive, calmer in the classroom.
- More engaged with teaching which corresponded to perceptions of increased quality of teaching.
- Spent more one-on-one time with students which improved relationships. Better relationships improved student confidence and quality of work.
- Increased focus on the positive qualities of students and increased positive feedback towards students.
- Less focus on set curriculum and more focus on more engaging and meaningful lessons.

- Students were more empowered to take ownership in their learning and have a voice in classroom decisions, thus, creating more of partnership between teachers and students.
- Increased recognition of student needs by teachers.
- Students were more calm, more engaged with learning, and some students completed more work than usual.

In a robust study assessing employee well-being, Kern et al. (2014) used factor analysis to identify the five elements of PERMA plus a negative emotions dimension and explored relationships between factors. Findings showed that PERMA and the negative emotions dimensions were related to physical health, life satisfaction, and professional thriving with positive affect, meaning, and accomplishment being most strongly related to health and life satisfaction while engagement and relationships were most strongly related to job satisfaction and organizational commitment (Kern et al., 2014). In particular, the well-being factors explained 58.6% of the variance in job satisfaction, 40.6% of the variance in organizational commitment, and 42.3% of the variance in life satisfaction (Kern et al., 2014). Also, the negative emotions dimension was significantly inversely related to job satisfaction and life satisfaction. Drawing on this evidence, Kern et al. (2014) prescribed that school administrators align their organizational goals with the elements of PERMA in order to create policies and practices in which staff well-being development is thereby grounded in the principles of positive psychology.

Why should TR be considered in light of POS and well-being?

Resilience is not a fixed attribute (Luthar & Brown, 2007; Rutter, 1987; Ungar, 2012). In Protective processes are defined as factors that counter risk when a process

changes one's life trajectory from risk to adaptation. These processes involve interactions, not just variables/factors, including good intimate relationships and task accomplishment, which improve self-esteem and self-efficacy, but also turning points which can increase resilience, and opportunities that provide turning points towards developing resilience (Rutter, 1987).

Teacher resilience is dynamic and influenced by a variety of contextual factors, including relationships, school culture, teacher identity, teachers' work, policies, and practices (Beltman et al., 2011; Gu, 2014; Gu & Day, 2013; LeCornu, 2013; Li et al., 2019; Morgan et al., 2010). Even within a high-stress work environment, teachers can cope with negative experiences provided that positive experiences, such as good relationships with students, administrators, and colleagues are consistently experienced (Morgan et al., 2010). To date, many resilience researchers have declared that interpersonal relationships are the roots of resilience (Jordan, 2006; Le Cornu, 2013; Luthar & Brown, 2007; Morgan et al., 2010). Luthar and Brown (2007) noted,

"Relationships lie at the "roots" of resilience...the presence of support, love, and security fosters resilience in part, by reinforcing people's innate strengths (such as self-efficacy, positive emotions, and emotion regulation) with these personally attributes measured biologically and/or behaviorally." (p. 947)

Gu (2014) found that teacher resilience is highly relational and multidimensional based on personal and contextual factors that are highly embedded in a teacher's network of relationships including teacher-leader, teacher-teacher, and teacher-student relationships. Support from leaders seems to play a unique and critical role in this relationship network. Teachers who reported feeling supported by leaders had higher

commitment and resilience (Deng et al., 2020; Gu, 2014; Gu & Day, 2013) Moreover, the impact of school support on teacher resilience was found to be more significant than the influence of personality (Ainsworth & Oldsfield, 2019; Deng et al., 2020) and work conditions (Li et al., 2019). Thus, in terms of context, support from leaders seems to have a stronger influence on teacher resilience than other contextual factors thereby making perceived organizational support a variable of particular interest worth studying in order to help school leaders better understand how their support influences teacher resilience and its associated outcomes such as improved student performance, increased teacher retention, and higher levels of job satisfaction.

Furthermore, increasing teacher resilience can lead to a multitude of benefits for teachers themselves, their students, and schools as organizations. Upon completion of professional learning programs on resilience, teachers showed increased motivation, resilience, self-efficacy, positive experiences, work well-being, and work-meaning (Fernandes, 2019) and reduced job -related stress, improved and stronger intentions to implement evidence-based classroom practices (Cook et al., 2016).

Conceptual Framework

In light of the implications gleaned from the extant literature on the variables of the proposed research questions and hinged on a pragmatist and social constructivist worldview, this study is grounded in relational-cultural theory (Jordan, 2018; Jordan & Hartling, 2002; Jordan et al., 1991). To establish a conceptual framework for the study at hand, this section summarizes relational-cultural theory along with explanations of proposed relationships to substantive content theories.

Relational-Cultural Theory

Relational-Cultural theory (RCT) posits that people grow from and through human connections and need relationships based on a developmental and neurobiological basis throughout their lives (Jordan, 2018; Jordan & Hartling, 2002; Jordan et al., 1991). Rooted in a feminist perspective, Jean Baker Miller's (1976) initial work towards RCT proposed the need to listen to women's voices in order to better understand their psychological experiences. Miller (1976) asserted that listening to the voices of women was crucial to the process of deconstructing traditional psychological models based in the domination and subordination of women and reconstructing more accurate representation of women in proposed theories of human psychology. It was Miller's (1976) seminal ideas which inspired a group of female scholars, to put forth the Stone Center Writings (Jordan et al., 1991) in which the tenets of RCT were initially outlined. Over many discussions, the authors worked to outline a perspective of psychology based on women's development and stemming from women's experiences, which opposed traditional psychological models at the time. Their conclusions presented in the Stone Center Writings were based upon a phenomenological focus and counseling perspective of listening to women, hearing their stories, and seeking to understand their unique needs and motivations (Jordan, 2018; Jordan et al., 1991). In listening to women's stories, it also became evident that the magnitude of race, culture, sexuality, sociopolitical, and power issues must also be considered when examining theories of psychology (Jordan et al., 1991, Jordan & Hartling, 2002). Thus, the lens of RCT was born, both relational and cultural in nature.

From the beginning of its development, RCT theorists challenged traditional models of psychology (Jordan et al., 1991; Miller & Stiver, 1997), especially those

models commonly applied in the United States. Such traditional models of psychology, primarily written by white, educated, and straight men, placed an emphasis on moving from dependence on others to independence of the self as an indication of psychological growth, thus rooted in emotional development by means of the separate self. For example, individualistic and separate-self models prize autonomy, correspond to a need for power over others, and devalue the influence of relationships on psychological growth. Moreover, dominant theories of well-being, which emphasized the ability to function well individually, were perpetuated by the influence of Western and American values of self-sufficiency, separation, self-determination, and individualism (Cushman, 1996 (Jordan & Hartling, 2002)). In contrast, RCT theorists have questioned these norms by placing connection instead of self as the source of growth, creativity, and protection. (Jordan, 2018). Jordan et al. (1991) conceived that individuals flourish and thrive when strong relationships exist to provide connection and interdependence.

Although RCT was initially proposed to understand the psychology of women's experiences, it is now more frequently used as a foundation to better understand all human experience based upon principles of human connection and the importance of differences, especially in terms of differences which stem from imbalances in power and privilege (Jordan & Hartling, 2002). While originally proposed to better understand the psychology of women and foster changes in applied psychotherapy, RCT has been more recently applied in a variety of fields including counseling, education, organizational dynamics, social justice, mentoring, and mindfulness (Gunderson et al., 2018; Jordan, 2018).

Growth in Mutuality

A core tenet of RCT propounds that all growth occurs in human connection based upon the principle of growth in mutuality (Jordan, 2018; Jordan & Hartling, 2002; Jordan et al., 1991; Miller & Stiver, 1997). The concept of growth in mutuality, or mutual empathy, was founded in Miller & Stiver's (1997) conviction that relationships are the source of psychological health because people grow from mutual forces in relationships and lift each other up (Jordan, 2018). As such, a mutual investment exists for both parties in a relationship in which each other's well-being is strengthened (Jordan, 2018). Furthermore, growth in mutuality is not only a process, but a fundamental need for human development, both individually and collectively as a species (Jordan, 2018). Unlike dominant theories of psychological development, there is an emphasis on the true reciprocity of the relationship instead of unidirectional forces where one person gives and the other simply receives or one person grows through individual effort. The power of growth lies in mutual relationships.

According to RCT theorists, growth from interpersonal connections built on empathy and mutual trust brings about five positive benefits of relationships: zest, clarity, sense of worth, productivity, and an increased desire for more connections (Jordan, 2018; Miller & Stiver, 1997). Miller and Stiver (1997) coined these benefits as the *five good things* which characterize the outcomes of growth-fostering relationships (Jordan & Hartling, 2002) because they provide a personal sense of meaning and empowerment. Zest involves gaining energy or positive feelings from a relationship, clarity refers to a heightened sense of self-awareness and awareness of the other person in the relationship, sense of worth includes feeling valued, productivity means increased resourcefulness and

applying creative solutions to problems, and increased desire for more connection is one's reaction to feeling satisfied in the present relationship (Jordan, 2018; Jordan & Hartling, 2002; Miller & Stiver, 1997). While these five good things stem from the reciprocity of the relationship, RCT theorists have maintained that growth-fostering relationships must also value differences instead of sameness by acknowledging the presence of diversity and the joint participatory processes of relationships (Jordan, 2018). For example, although an organizationally instituted power differential may exist between a boss and an employee, the two parties may still engage in a reciprocal growth-fostering relationship by supporting each other while also honoring and respecting each other's differences.

In addition to characterizing the reciprocal growth process of dyadic relationships, RCT theorists have called for a paradigm shift from an individual responsibility to a social responsibility for fostering human potential and well-being (Jordan, 2018; Jordan et al., 1991). Thus, humans are collectively responsible for building each other up on a societal and organizational basis. In doing so, there is a shift from the sense of a separate self to a more unified obligation towards the establishment of the greater good. Above all, RCT theorists have contended that people must be in connection in order to grow, transform, heal, and to employ new resources (Jordan, 2018; Jordan & Hartling, 2002).

Disconnection in Relationships

When people feel disconnected from others, they feel as if they do not matter and feel a need to conform to those who hold power in the relationship, thus, diminishing one's sense of authenticity, motivation, and purpose in what they bring to the relationship (Jordan et al., 1991; Miller & Stiver, 1997). Therefore, disconnection in relationships

leads to the opposite of the *five good things* of connection: depression, low energy, confusion, immobilization, isolation, and self-blame (Jordan et al., 1991). Miller and Stiver (1997) described this effect as the *central relational paradox* in which an individual is injured in a relationship or is unable to represent their true feelings and thereby becomes less authentic in order to maintain the relationship by using strategies of disconnection, the opposite of mutuality, in order to fit into the relationship. The *central relationship paradox* pathway diminishes the growth-fostering power of the relationship along with decreased zest, empowerment, clarity, worth, and desire for connection (Miller & Stiver, 1997). Furthermore, a chronic state of disconnection leads to isolation and disempowerment (Jordan, 2018) consequently leading to a demoralization of the subordinate party in the relationship and stagnation of personal development. In fact, the neurobiological basis of isolation provides evidence for the detriment of disconnection because isolation and rejection create real physical pain in the human body (Eisenberger & Lieberman, 2004). The social pain/physical overlap theory (Eisenberger & Lieberman, 2004) posited that experiencing the social pain of disconnection, especially feelings of rejection, elicits the same neurobiological pathways as physical pain induced by bodily injury. In addition, RCT theorists acknowledge that disconnections occur at the societal and organizational level as well as the individual level (Jordan & Hartling, 2002). Perhaps individuals feel even and greater social pain when the disconnection occurs on an organizational or societal level because the magnitude of rejection is amplified. As such, RCT contends that human connection is not merely a desire but a legitimate biological need for the human species to avoid pain and experience growth both on an

individual and collective basis (Eisenberger & Lieberman, 2004; Jordan, 2018; Jordan & Hartling, 2002).

Applications of Relational-Cultural Theory and Substantive Content Theories

In this section, the substantive content theories related to perceived organizational support, teacher resilience, and teacher well-being will be integrated in light of the concepts and tenets of RCT. In summarizing these connections, the aim is to provide a framework for understanding how the research questions will be explored, the direction the research will take, and the relationships between different variables of the study.

Connections of Relational-Cultural Theory to Teacher Resilience

Traditional definitions of resilience focus on personal or innate qualities corresponding to facing stress or surviving trauma, especially in reference to children (Block & Kremen, 1996; Block & Block, 1980; Garmezy & Rutter, 1983). By applying the lens of RCT, researchers have reframed the foundation of resilience as the cumulative influence of social, cultural, and interpersonal factors (Jordan & Hartling, 2002). Along these lines, in order to examine the development of resilience on a broader contextual basis, teacher resilience has been studied in light of RCT and relationship factors which may aid or detract from one's ability to face challenges and hard times (Ainsworth & Oldfield, 2019; Le Cornu, 2013; Mansfield et al., 2016). Ainsworth and Oldfield (2019) found backing for RCT in their study of teacher resilience because support from leaders and the role of school culture were among three of the most important contextual factors for teacher resilience. Contextual factors, most notably relationship-based factors, were more significant predictors of teacher resilience than individual characteristics (Ainsworth & Oldfield, 2019). Similarly, Le Cornu (2013) found that early career

teachers experienced growth primarily through relationships and identified five conditions for teacher resilience: relationships, school culture, teacher identity, teachers' work, and organizational policies and practices. Accordingly, related to growth in mutuality (Jordan, 2018; Miller & Stiver, 1997), Le Cornu (2013) concluded that teachers need to be sustained by relationships based on trust, respect, compassion, and integrity.

Connections of Relational-Cultural Theory to Organizational Support Theory

When analyzing OST and its proposed mechanisms and outcomes, connections can be made to RCT, especially in terms of the five good things of relationships and the concept of growth in mutuality. When good relationships exist in the workplace and employees feel supported, mutual growth occurs for both employees and the organization as a whole. The relationship benefits of productivity, sense of worth, clarity and zest seem fundamental to the outcomes of POS, especially in teachers, because POS has been shown to be related to favorable employee outcomes (job satisfaction, positive mood) and organizational outcomes (affective commitment, performance, decreased withdrawal behavior) (Rhoades & Eisenberger, 2002).

The benefits of sense of worth, clarity, productivity gained from relationships are evident in findings from POS research. For example, employees who felt their supervisor valued them and cared about their well-being showed increased POS and a corresponding decreased turnover rate (Eisenberger et al., 2002). In addition, POS has been shown to be positively associated to changes in affective commitment over time (Marique et al., 2013; Rhoades et al., 2001) and psychological empowerment mediated the relationship between POS and employee psychological well-being (Caesens et al., 2020). In particular, Bogler and Nir (2012) found that teacher empowerment had a much stronger mediating effect on

teacher satisfaction in a high POS context. Teachers who considered their school as an organization that valued and cared about their well-being, displayed higher levels of intrinsic and extrinsic satisfaction (Bogler & Nir, 2012). Thus, a teacher's sense of worth and clarity in commitment are enhanced when they feel valued and develop a heightened sense of awareness of their dedication and loyalty to their school as an organization.

In terms of productivity, POS has been shown to be related to a wealth of positive employee and organizational outcomes. In a study of how POS and authentic leadership influence teacher turnover, Aria et al. (2019) found that Authentic leadership (AL) significantly influenced teacher's intentions to stay in the profession. The positive relationship between authentic leadership and intention to stay was mediated by POS and psychological capital, with POS and psychological capital showing a positive direct effect on intention to stay (Aria et al., 2019). The concept of growth in mutuality was conspicuous in the authors' conclusion that school leaders who employ authentic leadership develop positive emotions in teachers, strengthen relationships, and enhance motivation, all of which led to the proposed strengthening of teacher resilience (Aria et al., 2019). Additionally, POS has shown significant relationships with teachers' performance. In a study of Punjab secondary teachers, fairness, organizational rewards, and job conditions were significantly related to the outcomes of power of expression, knowledge of work, analytical ability, and work output in teachers (Farooqi et al., 2019). Thus, when teachers felt supported, they seemed to develop a sense of agency which favored productivity. In a similar way, Deng et al. (2020) found school support had a positive impact on five components of creative teaching (interactive discussion, open-mindedness, problem solving, multiple learning, and autonomous learning). Furthermore,

there were significant positive correlations between school support and four dimensions of teacher resilience: problem cognition, hope/optimism, empathy, and emotion regulation (Deng et al., 2020). The dimensions of empathy and problem solving had a mediating effect and multilevel role in resilience and the impact of school support was more significant than the impact of personality on teacher resilience (Deng et al., 2020). Notably, school support explained a significant amount of variance for each proposed dimension of resilience: 27% of the variance in problem-solving, 41% of the variance in hope optimism, 45% of the variance in empathy, and 22% of the variance in emotion regulation (Deng et al., 2020). Finally, in support of the relationship benefit of enhanced productivity, two recent studies showed a connection between POS, fatigue, and resilience. In a study of Chinese nurses, Liu et al. (2020), found that resilience partially mediated the relationship between effort-reward imbalance and fatigue with POS moderating the association of resilience with fatigue. When employees reported higher levels of POS, the resilience-fatigue association was stronger (Liu et al., 2020). Likewise, in study of Chinese doctors, resilience and POS were negatively associated with physical and mental fatigue (Qiu et al., 2020). POS moderated the relationship between resilience and fatigue and doctors in a higher POS context showed a greater association between resilience and fatigue (Qiu et al., 2020). Thus, the positive benefits of supportive relationships in high POS contexts seem to enhance the effects of resilience on reducing the impact of job fatigue and favoring productivity.

Finally, the connection between POS and growth in mutuality can be characterized as a collective and synergistic effect among positive resources for resilience in employees and their organizations (Liu et al., 2020). Concurrent to Jordan's (2018)

notion of collective responsibility for human thriving, recent findings from several scholars highlight the need for developing organizational practices that foster a supportive environment and maximize employee's strengths. Guan and Frenkel (2021) concluded that positive and supportive relationships between leaders and employees led to employee thriving because of the connections to enhanced agency, meaningfulness, and resourcefulness. Similarly, Stinglhamber et al. (2020) found that POS played a fundamental role in the employee-organization relationship and stated that "treating employees supportively is a win-win situation for employers and employees" (Stinglhamber et al., 2020, p. 33). Hence, an organization and its leaders have a collective responsibility towards the mutually intertwined growth of employees and the organization.

Connections of Relational-Cultural Theory to Resilience and Well-being

When applying an RCT lens to the relationship between teacher well-being and teacher resilience, the concept of growth through human connection is emphasized. If relationships are the source of psychological health (Miller & Stiver, 1997), then connections built on mutual trust and empathy can help foster the positive emotions (zest) and resourcefulness (productivity), meaningfulness (sense of worth), which contribute to teacher well-being and teacher resilience.

Of the five good things of relationships, the role of positive emotions stands out as a prominent influence of teacher well-being and teacher resilience. Fredrickson and Joiner (2002) contended that positive emotions create upward spirals of growth in individuals and organizations, contributing to coping and enhanced well-being. Likewise, Seligman et al. (2005) posited that positive emotions are significant contributors to

resilience. The zest and positive emotions which arise from relationships can contribute to teacher well-being and teacher resilience because positive moods help individuals bounce back faster after negative events compared to those individuals with negative moods (Kansky & Diener, 2017). Also, people with positive moods have been shown to be more creative and motivated in their approach to work, thereby enhancing success and performance (Kansky & Diener, 2017). As such, people with positive moods may be more prone to view negative emotions and events as more manageable, thus giving them the ability to bounce back and overcome challenging situations. Moreover, a positive mood overall allows people to draw out positive emotions into the future and be better equipped to face obstacles by employing resources for coping (Fredrickson, 2001; Kansky & Diener, 2017; Van Cappellen et al., 2018)

Correspondingly, the outcomes of resilience and well-being extend into many positive benefits for teachers, schools, and students. For teachers as individuals, strong evidence exists for the positive outcomes of well-being including physical health, social relationships, resilience, and work performance (Kansky & Diener, 2017). In terms of students and schools, teachers with higher levels of well-being and resilience exhibit better teaching performance. For example, in a study by Cook et al. (2017) compared to a control group, teachers who participated in a resilience training program showed reduced job-related stress, improved teaching self-efficacy, and stronger intentions to implement evidence-based classroom practices. Likewise, Duckworth et al. (2009) found that grit, the passion and perseverance for long-term goals, and life satisfaction were significant predictors for teacher performance when measured in terms of student academic gains. In a qualitative interview study which applied the PERMA model of well-being to

understand the experiences of teachers, teachers perceived their ability to flourish as within their control by applying the right positive mindset and using well-being strategies (Crider, 2021). Thus, teachers who can persist in face of challenges and have high life satisfaction, are better teachers.

Summary and Implications of Literature Review

Systematically addressing the TWB and TR is a persistent need for promoting the development of a strong and stable workforce of teachers. The teacher workforce in the United States is threatened because of growing rates of attrition and job turnover, increased levels of teacher stress and burnout, decreased job satisfaction, and problems related to the COVID-19 pandemic. A complex web of personal and contextual factors impacts teacher job satisfaction, burnout, and stress (Carver-Thomas & Darling-Hammond, 2019; Sutchter et al., 2016). Likewise, teacher resilience is highly contextual and influenced by a dynamic network of personal and contextual risk and protective factors (Beltman et al., 2011; Mansfield et al., 2016). Traditionally, and as viewed through a norm of individualism, teachers themselves have born the primary responsibility for their own well-being and resilience to help them sustain the challenges of the profession. However, OST holds that organizational support fulfills socioemotional needs and elicits the norm of reciprocity, which, in turn, correspond to many positive outcomes for employees and organizations alike. Higher levels of POS are associated with increased job satisfaction, positive mood, organizational trust, affective commitment, employee well-being, work performance, work-life balance, and reduced stress and burnout (Kurtessis et al., 2015; Rockstuhl et al., 2020). Proposed mechanisms of POS on beneficial employee outcomes include resilience, psychological

empowerment, work meaningfulness, self-efficacy, and organizational identification. For teachers, higher levels of POS are associated with job satisfaction (Bogler & Nir, 2012), teacher performance (Farooqi et al., 2019), resilience (Deng et al., 2019), well-being, confidence, and decreased stress (Malik & Noreen, 2015). Nonetheless, there has been limited research of POS and teachers, especially in the United States.

Separately, POS, well-being, and resilience have been thoroughly studied in many workforces, including the workforce of teachers, yet a gap exists in studying the relationships among these three variables to determine how they interact, intersect, and collectively influence beneficial outcomes for teachers, schools, and students. Caesens and Stinglhamber (2020) advised that research on the causal connections between POS and related constructs is essential for building a foundation for theory and informing practices and policies for leaders. Further, although substantial evidence supports the correlation between teacher well-being and teacher resilience (Brouskeli et al., 2018; Hascher & Waber, 2021), the research of these constructs and how they are interrelated has been studied using a multitude of approaches and interpretations and inconsistency exists in their conceptualization and operationalization (Hascher et al., 2021).

Although the most prominent approach of studying TR and TWB has been that TR influences the maintenance of TWB (Hascher et al., 2021), Fredrickson's (2001) broaden and build theory of positive emotions suggests that resilience can be built from the components of well-being and several researchers have found that the building blocks of PERMA impact teacher flourishing (Crider, 2021; Kern et al., 2014; Turner & Theilking, 2019). Notwithstanding, the study of TWB is weakened by the lack of domain-specific approach to examine specific factors that impact TWB and TR. Also,

much evidence suggests that the relationship between these two variables is actually bi-directional in nature in terms of sustaining teachers in the profession.

Drawing from prior research and theory, the proposed study hypothesizes that teachers who feel valued and supported experience a positive school environment in which their well-being and resilience is nurtured because of growth in mutuality (Jordan, 2017; Jordan et al., 1991). The relationships between these variables can best be studied through a mixed methods approach in order to expand upon the existing literature and study the unique influence of context on the human experience of the development of teacher well-being and resilience.

Chapter 3: Research Methods

The purpose of this proposed explanatory sequential mixed methods study was to investigate relationships between perceived organizational support (POS), teacher well-being, and teacher resilience in secondary school teachers with at least eight years of experience. In the initial quantitative phase, a hypothesized model of the relationships between POS, teacher well-being, and teacher resilience was tested through structural equation modeling (SEM). In the subsequent qualitative phase, phenomenological analysis was used to describe teachers' experiences with these variables within the context of schools. Chapter three outlines the research design, instrumentation, data collection procedures, and data analyses that were used to conduct the study.

Research Questions

This study was driven by three research questions. A primary focus of the study was to explore the relationships between POS, teacher well-being, and teacher resilience, especially to explore the predictive value of POS on teacher well-being and teacher resilience with well-being as a potential mediator between POS and resilience. In other words, do teachers who feel supported and valued by their schools become more resilient as a result of improved well-being? Additionally, how do teachers with high resilience experience organizational support and factors of well-being as compared to teacher with

low resilience? The three specific research questions and related sub-questions were as follows:

Quantitative Research Question 1 (RQ1): What is the structure of the relationships between perceived organizational support (POS), teacher well-being, and teacher resilience?

RQ_{1A}: Is the estimated population covariance matrix generated by the hypothesized structural model for perceived organizational support, teacher well-being, and teacher resilience, consistent with the sample covariance matrix?

RQ_{1B}: How much of the variance in teacher resilience, both latent and observed, is accounted for by POS and teacher well-being? Of POS and teacher well-being, which variable accounts for the most variance in teacher resilience?

RQ_{1C}: What are the direct effects, indirect effects, and total effects among the variables, POS, teacher well-being, and teacher resilience included in the hypothesized structural model? Within the model, what is the relevant importance of various paths? Is the relationship between Perceived Organizational Support and teacher resilience mediated by teacher well-being?

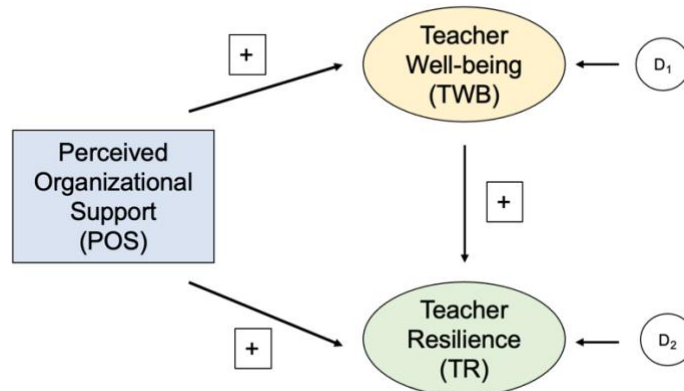
Qualitative Research Question 2 (RQ2): How do teachers describe their experiences with organizational support and how it contributes to teacher resilience in the school context?

Qualitative Research Question 3 (RQ3): What do teachers experience in their school contexts that contributes to their own well-being and resilience as a teacher?

Using a pragmatist approach and informed by relational-cultural theory (Jordan, 2017; Jordan et al., 1991), as depicted in Figure 3, a hypothesized model of the relationships between perceived organizational support, teacher well-being, and teacher resilience was proposed. In SEM, latent variables consist of hypothetical constructs that express a continuum that is not directly observable but, rather, can be represented by a group of observed variables (Kline, 2016). In the hypothesized model of this study, teacher well-being and teacher resilience were both latent variables that were represented by measurements from the survey data. Specific details of the measurements included for each latent variable will be detailed in the data analysis section later in this chapter.

Figure 3

Hypothesized Model



Note: Hypothesized model of the relationships between Perceived Organizational Support, teacher well-being, and teacher resilience. Disturbances are represented by the letter D, signifying the residual (unexplained) variation of associated variables.

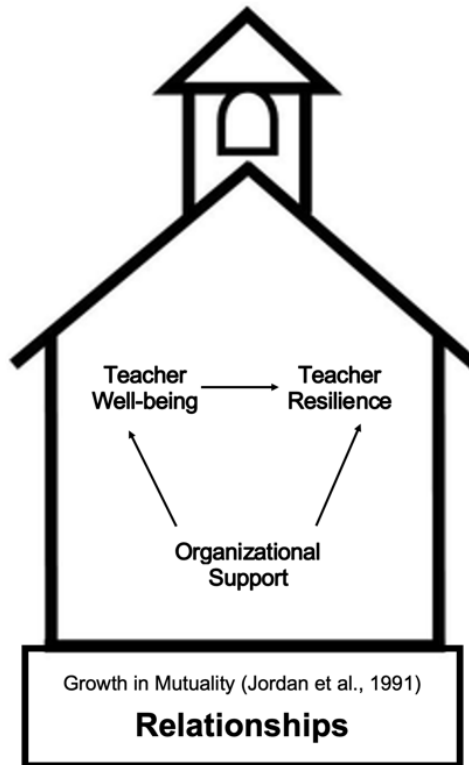
Teachers as individuals were the unit of analysis. It was hypothesized that teachers who perceive higher levels of organizational support would have higher levels of teacher well-being and teacher resilience. In addition, teacher well-being was hypothesized as a mediator between organizational support and resilience. Finally, for the qualitative phase of the study, it was predicted that teachers would describe personal experiences with organizational support in schools that contributed to their well-being and resilience in the profession.

Conceptual Framework

The research questions focused on exploring and explaining the connections between the substantive content theories as depicted in this study's conceptual framework shown in Figure 4. The concepts from these theories were bound within the schoolhouse context to represent the focus of this study. Relationships among school employees represented the foundation of the schoolhouse as the rationale behind why and how these constructs were connected.

Figure 4

Conceptual Framework



Note: Conceptual framework linking the relationships between substantive content theories of organizational support, teacher well-being, and teacher resilience.

The hypothesized model (Figure 3) represented how RQ1 was used to explore the proposed relationships between variables as justified by organizational support theory (Eisenberger et al., 1986), the PERMA model of subjective well-being (Seligman, 2011), and the multidimensional teacher resilience framework (Mansfield et al., 2016). That is, when teachers feel valued and supported by their schools as organizations, then they should demonstrate higher levels of resilience because of improved well-being. Because quantitative data alone is limited in providing an in-depth look at human experiences, RQ2 and RQ3 were posed to expand upon the quantitative findings to illuminate the

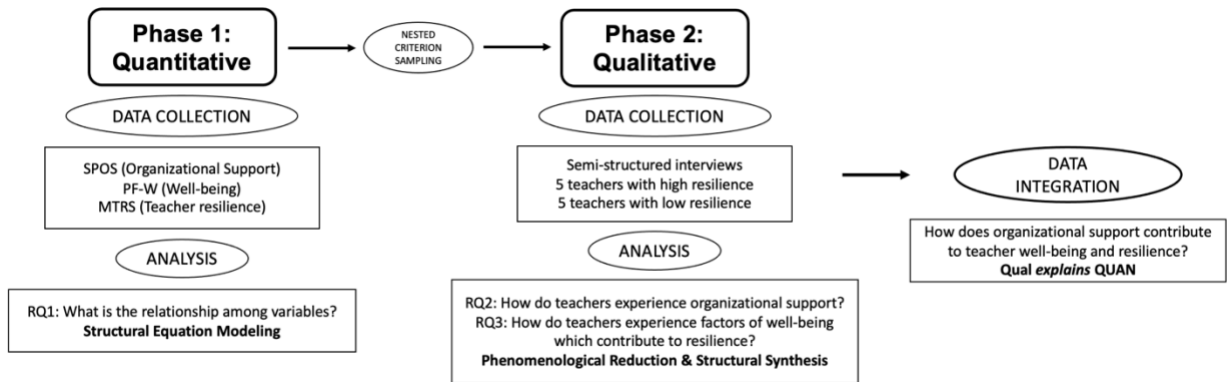
relationships between variables according to teachers' shared experiences with organizational support, well-being, and resilience in the context of schools. As illustrated in Figure 4, the methodological connections between these concepts were guided in an overarching fashion by principles from relational cultural theory (Jordan, 2017; Jordan et al., 1991) because the positive benefits of relationships allow people to thrive and, thus, become more resilient.

Research Design

The proposed nonexperimental study was designed as a sequential explanatory mixed methods study, a quantitative phase followed by a qualitative phase. In phase one, quantitative data were collected using previously established survey instruments. To answer the quantitative research question and its sub-questions, survey data were analyzed using SEM. Next, using stratified sampling, a subset of participants from phase one were selected to collect qualitative data using semi-structured interviews in phase two. Phenomenological reduction and structural synthesis were used to answer the qualitative research questions and describe the essence of teachers' experiences with organizational support, well-being, and resilience (Creswell & Poth, 2018; Marshall & Rossman, 2016). To answer the overarching research question, quantitative and qualitative data were integrated for the formation of conclusions drawn from the overall findings. Figure 5 illustrates the overall research design.

Figure 5

Research Design Flowchart



Rationale for Mixed Methods

The rationale for the mixed methods research design selected for this study can best be articulated through a pragmatist framework. As such, a pragmatist approach to research holds that universal truths exist but those truths are based on human processes and are highly influenced by context, thus, research is ideally conducted using a variety of methods (Creswell & Poth, 2018; Decuir-Gunby & Schutz, 2017; Kaushik & Walsh, 2019). Pragmatists reject the need to commit to any singular system of philosophy or reality (Creswell & Poth, 2018). Rather, they view the process of acquiring knowledge as a continuum, accepting that knowledge is gained both objectively and subjectively. In employing this approach, a pragmatist researcher selects a research design from a practical approach in order to choose what method works best for the research questions at hand, typically utilizing both quantitative and qualitative data collection, or mixed methods. Furthermore, a mixed methods approach is suitable for studying complex problems by gathering multiple sources of evidence to triangulate findings (Decuir-Gunby & Schutz, 2017). In this study, qualitative interview data were used to build upon

and expand the quantitative data, thus, utilizing an explanatory sequential mixed methods design. Using multiple sources of data allows a mixed methods researcher to maximize the benefits of one type of data collection while minimizing the drawbacks of other types of data collection. For example, the generalizability offered by quantitative data is limited by confounding variables and a lack of participants' perspectives, but the in-depth analysis and participant voice rendered from qualitative data can be used to counterbalance these shortcomings and vice versa (Decuir-Gunby & Schutz, 2017).

In terms of data analysis, structural equation modeling (SEM) and phenomenological analysis were used to answer the research questions. SEM allows a researcher to examine the set of relationships between one or more independent variables and one or more dependent variables (Ullman, 2009). In particular, researchers use path diagrams in SEM to pictorially represent the hypothesized set of relationships, and then statistical estimation to analyze the structure of the variables, thus facilitating analysis of quantitative results. Further, SEM allows for flexibility in analyzing alternative solutions to the hypothesized model through iterative series of analyses (Kline, 2016).

Phenomenological analysis was employed for the qualitative data to summarize what individual teachers experience in terms of organizational support, well-being, and resilience and how they have experienced it (Marshall & Rossman, 2016). First, phenomenological reduction was used to cluster data around emerging themes. Then, structural synthesis was used to explore multiple meanings and experiences of the teachers and develop a deep structure of the phenomenon. This process of analysis helped develop the essence of the phenomenon of interest, which is the culminating aspect of phenomenology as a qualitative methodology. Finally, data integration, the final process

in mixed methods data analysis which entails the mixing of quantitative and qualitative data, was used to combine findings and used the qualitative results to explain the quantitative results using a joint display to highlight new perspectives (Decuir-Gunby & Schutz, 2017).

Population and Sampling Plan

Population

The population for this study included all 7-12th grade teachers in Ohio public schools. As of the 2019-20 academic year, there were 50,010 secondary school teachers in Ohio (Bureau of Labor Statistics, 2020) serving 735,144 students (Ohio Department of Education, 202). Of these teachers, approximately 93.7% were white, 4.6% black, 0.9% Hispanic, 0.6% Asian, 0.3% Multiracial, and 0.1% Native American or Native Alaskan (Ohio Department of Education, 2021). In terms of gender, approximately 75.1% were female and 24.9% male (Ohio Department of Education, 2022).

Sampling and Recruitment Plan

For the mixed methods design, a multi-phase nested sampling plan was utilized. Nested sampling involves pulling a subset from one phase of a mixed-methods study to participate in the other phase of the study (Decuir-Gunby & Schutz, 2017). In phase one, as recommended by Kline (2016), a minimum of 200 teachers were surveyed from whom 10 teachers were selected for follow-up interviews in phase two.

Phase one sampling was conducted via volunteer sampling. Participants were recruited by email invitation to school principals. To ensure even coverage across the representative population groups, stratified sampling was used to further refine the

sample to match proportions in the population sub-groups for demographics (Remler & Van Ryzin, 2011). Surveys included demographic information for race, gender, years' teaching experience, age. To encourage participation, participants who completed the survey were invited via a separate web link to enter their name into a drawing for one of four \$50 gift cards. The minimum sample size for SEM analyses is commonly accepted at $N = 200$, although most scholars recommend more precise sample size estimates to ensure a sound statistical analysis (Kline, 2016). To ensure an adequate sample size for SEM, the rule of $N:q$ was used, where the ratio of the number of cases (N) to the number of SEM model parameters (q) is set at a minimum level of 20:1 ratio (Kline, 2016). Parameters in SEM consist of direct effects on endogenous (dependent) variables from other variables and variances and covariances of exogenous (independent) variables (Kline, 2016). Thus, given 33 model parameters that require statistical estimates for the hypothesized structural model, the target sample was 660.

For phase two, purposeful criterion sampling, also known as nested sampling in mixed methods research, was used to create a subset sample from the quantitative participants to use for the qualitative data collection (Decuir-Gunby & Schutz, 2017). This type of sampling is recommended for explanatory sequential mixed methods research when a researcher aims to further explore the experiences of a smaller group of participants (Decuir-Gunby & Schutz, 2017). Additionally, criterion sampling, which involves selecting cases based on predetermined criteria of importance, is used in qualitative research when seeking to identify cases of value for answering the research question (Creswell & Poth, 2018). Moreover, for phenomenological approaches, criterion sampling helps establish a set of participants who have shared similar experiences

(Creswell & Poth, 2018). Sampling criteria was established based upon the phase one survey results for teacher resilience. On the survey, participants were able to indicate if they were willing to be contacted for further participation in the study (interview). Phenomenological studies typically use 5-25 participants to achieve saturation (Creswell & Poth, 2018). To explore teachers' shared experiences with factors related to POS and TWB that impact resilience, of participants who expressed willingness for further participation, five teachers were selected who demonstrated high levels of resilience along with five teachers who demonstrated low levels of resilience. A high-resilience and a low-resilience group were utilized to compare different perspectives among those who shared a similar experience.

Instrumentation

In this section, the three instruments selected for quantitative data collection will be presented: the Survey of Perceived Organizational Support (SPOS) (Eisenberger et al., 1986), the Positive Functioning at Work scale (PF-W) (Donaldson & Donaldson, 2020), and the Multidimensional Teacher Resilience scale (MTRS) (Mansfield & Wosnitza, 2015). The SPOS was used to measure POS, the PF-W was used to measure teacher well-being, and the MTRS was used to measure teacher resilience. A summary of the following will be presented for each instrument: (a) background and purpose including relevant literature, (b) development and construction including scales and scoring, and (c) reliability and validity.

Survey of Perceived Organizational Support

Rooted in the tenets of the norm of reciprocity (Gouldner, 1960) and social exchange theory (Levinson, 1965), Eisenberger et al. (1986) developed the Survey of

Perceived Organizational Support (SPOS) to measure employee global beliefs of perceived organizational support and its corresponding effects on employee outcomes including fulfillment of socioemotional needs, affective commitment, reward expectancy, and absenteeism.

Development and Construction

To develop an item pool, a starting set of 36 statements was generated about employees' evaluations of judgments attributed to their organization on the extent to which they feel valued and supported. Items included statements such as employee's anticipation of future value to the organization, appreciation of effort, recognition of performance, support of well-being, job enrichment, consideration of employee's goals and opinions, reactions to mistakes, utilization of employee's talents, fair pay, and opportunities for promotion. Surveys were distributed to employees from a variety of organizations, representing both industry and professional categories of employment. Results were analyzed from a total of 361 respondents. All items were measured on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). To control for agreement response bias, half the items were positively worded and the other half of the items were negatively worded. The average global SPOS scores for employees considerably varied from one organization to another.

Reliability and Validity

In the first phase of the study, to determine the number and strengths of factors of the 36 items, principal components analysis (PCA) was performed (Eisenberger et al., 1986). Results showed that the perceived support factor accounted for 93.3% of the common variance and 48.3% of the total variance with a possible second factor which

accounted for only 4.4% of the total variance. The perceived support factor loaded higher on all 36 items as compared to the possible second factor. Next, a reliability analysis indicated strong reliability of the scale ($\alpha = .97$) with item-total correlations ranging from .42 to .83. Thus, Eisenberger et al. (1986) concluded that the 36 items were an acceptable measure of employees' global beliefs regarding the extent to which their organization values them and supports their well-being.

Shorter versions of the SPOS have also displayed sound psychometric properties. In a second phase of the Eisenberger et al. (1986) study, a shortened version of the SPOS comprised of the 17 items from the first study with the highest loadings showed predictive validity for reduced absenteeism in a sample of 97 high school teachers. Hutchison (1997) went on to develop an 8-item version from Eisenberger et al.'s (1986) 17-item version to reduce the length of the scale for survey purposes. Eight items were selected from the SPOS that represented divergent aspects of employee perceptions of their organization. In a sample of 205 faculty and staff from a large university, the 8-item scale showed that the shorter version was unidimensional for POS and demonstrated strong reliability ($\alpha > .92$) (Hutchison, 1997).

Additional scholars have also tested the reliability and validity of the SPOS scale. The construct validity of the SPOS has been distinguished from similar constructs of organizational commitment, affective commitment, continuance commitment (Shore & Tetrick, 1991), perceived supervisory support, and organizational dependability (Hutchison, 1997). Furthermore, across 58 studies using the SPOS, the mean reliability for internal consistency was strong ($\alpha > .88$, $SD = .10$) although a positive correlation

existed for the number of items utilized and Cronbach's alpha ($r = .60, p < .001$) (Hellman et al., 2006).

Positive Functioning at Work Scale

Many different well-being models have been applied as the foundation of teacher well-being, including the psychology of well-being, positive psychology, psychology of work and organizations, specific teacher well-being, and health science (Hascher & Waber, 2021). Therefore, to provide clarity of conceptualization of a study's variables (Remler & Van Ryzin, 2011) it is recommended that researchers studying teacher well-being select and declare a defined model of well-being to be incorporated into their conceptual frameworks and corresponding data collection (Hascher & Waber, 2021). Also, specifying a clear conceptual foundation for a latent construct is necessary for operationalization (Remler & Van Ryzin, 2011). In this study, I have selected the PERMA model (Seligman, 2011) as the underlying framework for teacher well-being because of its connections to perceived organizational support and teacher resilience.

The Positive Functioning at Work scale (PF-W) was originally modeled after Seligman's (2011) PERMA model of well-being that proposed five factors of well-being: positive affect, engagement, relationships, meaning, and accomplishment. Upon conducting a meta-analysis and a systematic literature review to examine documented factors of workplace well-being beyond PERMA, Donaldson and Donaldson (2020) proposed four additional components of workplace well-being: physical health, mindset, workplace environment, and economic security. In response to the critique of the PERMA model and Seligman's (2018) call for more research to further refine PERMA and explore additional dimensions of well-being, Donaldson and Donaldson (2020)

developed the PF-W to include nine factors total, the original five factors of PERMA and the four newly proposed factors of well-being. Also, they aimed to study the combined and individual predictive value of these nine factors for employee work outcomes. I contacted Scott Donaldson via email to request permission to use the PF-W scale. Permission was granted to use the scale for this study.

Development and Construction

The four additional dimensions of well-being were conceived from previous scholarly work. Physical health was characterized as the perceived capacity to eat well, move regularly, and sleep deeply, as first applied by Butler and Kern (2016) in their PERMA-Profiler scale. For mindset, Donaldson and Donaldson (2020) drew from the works of Dweck (2008) and Duckworth et al. (2007) to define mindset as an open and malleable growth mindset that enhances one's propensity towards perseverance over time. Environment was represented as the quality of one's work environment including ample natural light, access to nature, safety, and physical organization of workspace. To define economic security, the concept of a curvilinear relationship between income and well-being (Diener & Seligman, 2004) was applied to focus on an employee's perception of the impact of their income on sustaining financial security through unforeseen medical and financial emergencies.

To generate an item pool, Donaldson and Donaldson (2020) pulled items from the extant literature on the five elements of PERMA and the four new elements (physical health, mindset, environment, and economic security) to represent each construct. Items were worded as declarative statements and measured on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). All negatively worded items were removed to

strengthen statistical analyses and better correspond to well-being instead of ill-being constructs.

Reliability and Validity

A series of three studies were conducted to develop the PF-W (Donaldson & Donaldson, 2020). Overall, the PF-W demonstrated convergent, discriminant, criterion, predictive, and incremental validity with other well-being and workplace performance measures as well as measurement invariance across various job functions. To determine content validity in study one, Subject Matter Experts (SMEs) reviewed and rated the resulting 78 item bank based on their expertise in positive psychology. The item ratings were then analyzed using intraclass correlation and descriptive statistics which then narrowed the item bank to 58 items.

To assess the dimensionality of the items, exploratory factor analysis (EFA) was conducted to limit the item bank followed by confirmatory factor analysis (CFA) to further refine and validate the revised set of items using responses from a sample of 350 Amazon MTurk employees (a crowdsourcing marketplace for businesses). A nine-factor solution emerged consisting of positive emotions, engagement, relationships, meaning, accomplishment, physical health, mindset, environment, and economic security. A final set of 29 items showed excellent reliability ($\alpha = .94$) with subscales ranging from acceptable ($\alpha > .70$) to excellent ($\alpha > .90$) reliability. Table 3 displays the nine factors respective reliabilities. To further validate the psychometric properties of the instrument, a CFA was performed with three to four items representing each construct: positive emotion (P), engagement (E), relationships (R), meaning (M), accomplishment (A), mindset (MI), physical health (PH), environment (EN), and economic security (EC).

Table 3*Positive Functioning at Work (PF-W) Scale* (Donaldson & Donaldson, 2020)

Factor:	Number of items:	Associated concepts and sub-dimensions:	Reliability:
Positive emotion (P)	3	<ul style="list-style-type: none"> • How often do participants feel various positive emotions? • Joy, enthusiasm, love for job 	$\alpha = .93$
Engagement (E)	3	<ul style="list-style-type: none"> • Are employees engaged in job to the extent that they lose track of time and forget about other things? • Are employees absorbed in their work and find work enjoyable? 	$\alpha = .88$
Relationships (R)	4	<ul style="list-style-type: none"> • Two sub-dimensions: receiving and giving • Do employees feel supported, appreciated, and trust their colleagues? • Do colleagues bring out the best in employees? 	$\alpha = .90$
Meaning (M)	3	<ul style="list-style-type: none"> • 6 sub-dimensions: worth, transcendence, direction, meaning, meaning-making, and greater-good intentions • Is work meaningful? Do employees understand what makes their work meaningful? • Does one's work serve a greater purpose? 	$\alpha = .91$
Accomplishment (A)	3	<ul style="list-style-type: none"> • 2 sub-dimensions: goals and prove performance goals • Do employees set goals that help them reach work aspirations? • Do employees typically accomplish work tasks? • Are employees satisfied with work performance? 	$\alpha = .81$
Mindset (MI)	3	<ul style="list-style-type: none"> • 4 sub-dimensions: psychological capital, grit, growth mindset, prospection • Do employees believe that hard work can improve job skills? • Does job future look promising to employees? 	$\alpha = .85$

		<ul style="list-style-type: none"> • Do employees see job as helping them develop in the future? 	
Physical Health (PH)	4	<ul style="list-style-type: none"> • 3 sub-dimensions: biological, functional, psychological • Do employees feel physically healthy and in control of their own health? • Are employees rarely sick? Can employees overcome physical distress? 	$\alpha = .86$
Environment (EN)	3	<ul style="list-style-type: none"> • Measures physiological and psychosocial factors that influence optimal functioning • Is there ample natural light and access to nature? • Does physical workspace allow for focus and concentration? 	$\alpha = .76$
Economic Security (EN)	3	<ul style="list-style-type: none"> • 4 sub-dimensions: income, job security, medical spending, financial savings • Is current income comfortable? • Does income provide enough economic security to withstand financial and health emergencies? 	$\alpha = .84$

In the third and final study, Donaldson and Donaldson (2020), validated the PF-W and assess its predictive ability for work-related outcomes using a sample of 727 Amazon MTurk employees. The general factor of PF-W was supported along with its nine dimensions. To assess criterion-related predictive validity, first, a criterion pool was developed from positive and negative well-being measures and positive and negative performance measures. The resulting initial pool of 50 scales were narrowed down to three positive well-being measures, one negative well-being measure, three positive performance measures, and one negative performance measure. In sum, the final 27 items measured the following outcomes: psychological capital, satisfaction with life, job stress, organizational citizenship behaviors, work role performance, job-related affective well-being, and turnover intentions. Results showed large positive relationships between PF-W and both life satisfaction and psychological capital and a negative relationship to job

stress. Next, hierarchical multiple regression was conducted to determine predictive validity. The elements of PERMA were significantly predicted turnover intentions ($R_2 = .404, p < .05$). When the four new elements (PH, MI, EN, ES) of PF-W were added, there was a significant increase in predicted turnover intentions ($\Delta R_2 = .04, p < .05$). Likewise, PERMA was also a significant predictor of individual adaptivity ($R_2 = .413, p < .05$) and organizational adaptivity ($R_2 = .38, p < .05$) and the addition of the four new elements further increased the predictive value.

Concurrent validity represents how a measure concurs or agrees with other established measures (Remler & Van Ryzin, 2011). Diener's (1984) model of subjective well-being (SWB) is often used as a comparison for other measures of well-being because it contains key components found in other models (life satisfaction, positive affect, lack of negative affect). To further assess concurrent validity, in a separate study, Donaldson, Heshmati, et al. (2021) compared the elements of PERMA and PF-W to SWB. It was found that PERMA significantly predicted SWB ($R_2=.57$, self-report, $R_2=.40$ co-worker report) but that PF-W yielded a stronger predictive value of SWB ($R_2=.65$, self-report, $R_2= .44$ co-worker). Thus, supporting the idea that the components of PERMA may be exclusive but not exhaustive. Drawing from the development of the scale and the subsequent study, Donaldson, van Zyl, et al. (2021) proposed a PERMA+4 model as a holistic framework that can be used to assess and foster workplace well-being. The PERMA+4 model contains all nine elements from the PF-W: positive emotion, engagement, relationships, meaning, accomplishment, mindset, physical health, environment, and economic security. Based upon this revised model, it was recommended that future researchers should determine the antecedents of PERMA+4 and

focus on what factors are needed to activate PERMA+4 (Donaldson, van Zyl, et al., 2021).

Multidimensional Teacher Resilience Scale

The development of the Multidimensional Teacher Resilience Scale (MTRS) (Mansfield & Wosnitza, 2015) was based upon evidence that teacher resilience is dynamic, multidimensional, and influenced by personal and contextual risk and protective factors (Beltman et al., 2011; Day et al., 2009; Gu & Day, 2014; Mansfield et al., 2012). Drawing from Mansfield et al.'s (2012) research that asked 200 preservice teachers about factors that influence teacher resilience, four dimensions of protective factors for teacher resilience were proposed: professional, motivational, emotional, and social. These findings were used to develop a measure of teacher resilience that reflects the multidimensional nature of resilience in the context of the teaching profession. I emailed Caroline Mansfield to obtain permission to use the MTRS. Permission was granted to use the full version or short version of the MTRS scale in this study.

Development and Construction

Utilizing a sample of 334 Portuguese teachers, Peixoto et al. (2020) conducted a validation study of the MTRS using a Portuguese translated version of the MTRS. The sample included both elementary and secondary teachers with varying levels of experience. Snowball sampling was used to gather participants through local teacher's associations. First, a series of CFAs were conducted to determine the dimensionality of the original 26 item MTRS as created by Mansfield and Wosnitza (2015). The first CFA solution did not provide a good fit to the data, thus, items with low loadings or cross-loadings were removed to develop a measure that included both statistically sound and

theoretically sound factors. This refinement process resulted in a model with 13 items consisting of five items each for motivational dimension, four items for the social dimension, two items representing the emotional dimension, and two items for the professional dimension, all with factor loadings greater than .58. Items were measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Reliability and Validity

To examine convergent and divergent validity, the average variance extracted (AVE) was examined for each dimension. Although the professional and motivational dimensions showed good validity (AVE = .752, .528, respectively), the emotional (AVE = .462) and social (AVE = .429) dimensions were slightly below the standard of .50. Results showed adequate discriminant validity for dimension pairs except for the pairs of social-emotional and social-motivational dimensions, thus indicating possible overlap and interrelatedness amongst factors. Perhaps the social resilience dimension influences or is correlated to the factors of emotional and motivational resilience due to the effects of interpersonal relationships. To test the concept that overall teacher resilience is a higher-order factor related to its four subdimensions, a hierarchical model was tested and demonstrated a good fit to the data. Cronbach's alpha reliability values were medium to high for each dimension ($\alpha = .72-.86$), as shown in Table 4. Descriptive statistics indicated a normal distribution for the dimensions of the scale and the global score. The four factors of teacher resilience retained were motivational (Mot), Emotional (Emot), Social (Soc), and Professional (Prof).

Table 4*Multidimensional Teacher Resilience Scale (MTRS) (Peixoto et al., 2020)*

Factor:	Number of items:	Associated concepts:	Reliability:
Motivational (Mot)	5	<ul style="list-style-type: none"> • Self-efficacy beliefs, pedagogical competencies • Am I optimistic and persistent? • Do I enjoy learning and like challenges? 	$\alpha = .78$
Emotional (Emot)	2	<ul style="list-style-type: none"> • Positive emotions, management of emotions • Can I balance my role as teacher with other parts of life? • Can I manage to stay calm at school? 	$\alpha = .72$
Social (Soc)	4	<ul style="list-style-type: none"> • Positive and supportive relationships with leaders, colleagues, and students • Do I communicate well as a teacher, build new relationships at school, and view situations from other's perspectives? • Can I generally resolve conflicts at school? 	$\alpha = .74$
Professional (Prof)	2	<ul style="list-style-type: none"> • Intrinsic motivation, persistence, expectations, goals • Can I be flexible and quickly adapt to new situations at school? 	$\alpha = .86$

To determine construct validity, a correlation analysis between the MTRS and a global measure of teacher resilience, the Teacher Resilience Scale (Morgan, 2011), was performed. The Teacher Resilience Scale (TRS) is comprised of nine items that measure how teachers deal with setbacks in their daily jobs as teachers. Findings showed the four dimensions of the MTRS were moderately correlated to the global score of the TRS ($r = .48 - .56, p < .0001$) and the global score of the MTRS was strongly correlated to the global score of the TRS ($r = .72, p < .0001$). Thus, Peixoto et al. (2020) concluded that the MTRS demonstrated strong construct validity as evidence to support that teacher resilience is multidimensional, socially constructed, and situated within the teaching profession. However, it was recommended that further studies are needed to confirm the

psychometric properties of the MTRS and to test the measure with a more diversified and greater sample of teachers and from other cultural backgrounds.

Procedures

Data Collection Methods

Before beginning data collection, an Application for Exempt Review was submitted to the Wright State University Internal Review Board (IRB). This study qualified for an exempt IRB review because: (a) it only involved surveys and interviews and, (b) identification of participants were not disclosed.

Quantitative Data Collection

Data collection occurred in two phases in this sequential explanatory mixed-methods study. Phase one included a survey of quantitative results and phase two included individual semi-structured interviews for qualitative results. In phase one, items from the three selected scales, Survey of Perceived Organizational Support (SPOS) (Eisenberger, 1986), Positive Functioning at Work scale (PF-W) (Donaldson & Donaldson, 2020), and the Multidimensional Teacher Resilience scale (MTRS) (Mansfield & Wosnitza, 2015), were combined into one survey instrument using Qualtrics. Appendix B contains a complete copy of the survey instrument that was distributed to participants.

Once IRB approval was obtained, a recruitment email with a brief description of the study and link to the Qualtrics survey was emailed to 201 principals in Ohio public schools (middle school and high school). To address coverage bias, schools contacted for participation will represent stratified proportions of school characteristics (urban, suburban, rural, middle school, high school, career technical school) in relation to

population characteristics. Informed consent was gained in the first section of the Qualtrics survey (see Appendix A). To encourage an adequate response rate and representativeness of participants from each school, a gift card raffle incentive was offered and reminder emails were sent as needed. There were two main data collection windows, May 2022 and August 9, 2022– November 2, 2022. Data collection was paused during the summer while teachers were not working. In total, 399 responses were collected from May 8, 2022, to November 2, 2022. Participants had from three to eleven weeks to respond to the survey depending on when they received the initial invitation. Drawings for the incentive gift cards occurred after the survey completion deadline.

Qualitative Data Collection

After the quantitative data analysis was completed for phase one, a list of participants who expressed willingness to participate in follow-up interviews was gathered from the survey results ($n = 101$). Next, these potential participants were categorized for the criterion sub-groups of high teacher resilience and low teacher resilience. Using SPSS 28.0, a sum score was calculated for Multidimensional Teacher Resilience Scale items which included 26 items (questions 41- 66) using a 6-point Likert scale (1=strongly disagree, 6 = strongly agree). Of those participants who indicated they would be willing to be contacted for a follow-up interview ($n = 101$), quartile ranges were calculated for Teacher Resilience sum scores (range = 93-156). High resilience teachers were defined as the highest quartile of the sum score generated from the survey responses for items from the MTRS measuring teacher resilience. Low resilience was defined as the lowest quartile of respondents for the overall MTRS sum score.

Initial contact for potential interview participants was made via email to confirm interest in further participation in the study and to schedule an interview date. Of those participants who responded to the recruitment email, five final participants were selected for interviews from the high resilience group and five participants from the low resilience group. All efforts were made to evenly represent school characteristics among the selected subset of interview participants. Participants received an email with a digital consent form and were asked to reply to confirm consent and express full understanding of voluntary participation with the right to withdraw at any time (see Appendix A). Interviews were conducted via WebEx web-conferencing platform. A reminder email and WebEx meeting link were sent to participants one week in advance of their scheduled interview, along with a second reminder email and text message the day before the interview. Upon gaining permission from participants, interviews were recorded and later transcribed for qualitative analysis purposes. Field notes, which serve as researcher reflections on gathering data and maintaining ethics and access, were recorded before and after each interview to bracket personal emotions, experiences, or biases when gathering and interpreting data (Creswell & Poth, 2018; Marshall & Rossman, 2016).

Data Analysis Procedures

Evaluation of Research Methods

Ensuring trustworthiness and validity in research is essential for establishing the rigor of a study and to plan for ethical considerations of human subjects (Marshall & Rossman, 2016). As a mixed-methods study, trustworthiness and validity will be addressed in ways that align with both quantitative and qualitative methods and for the overall soundness of the study. Commonly accepted standards of rigor in research include

the quantitative concepts of validity, reliability, objectivity, and generalizability. Lincoln and Guba (1985) proposed parallels of these standards in qualitative research in the form of credibility, dependability, confirmability, and transferability. To draw accurate and true inferences from findings, all efforts must be made to reduce threats to validity and ensure trustworthiness in studies.

Reliability and Validity of the Quantitative Research

Reliability refers to how consistent a measure is while validity represents how well a study investigates the actual phenomenon of interest (Remler & Van Ryzin, 2011). Reliability was assessed through reliability analyses and reporting of Cronbach's alpha for survey results. This measure of internal consistency demonstrates how well items on each scale correlate with each other or measure the same construct (Remler & Van Ryzin, 2011). Two major types of validity should be addressed in research design, internal validity, and external validity. Internal validity refers to the extent to which evidence can attribute a cause-and-effect relationship among variables in the study (Remler & Van Ryzin, 2011). Internal validity was addressed in several ways in this study. To reduce threats to face validity and construct validity, established instruments with previously reported validity were selected to measure constructs. Further, to corroborate construct validity, additional confirmatory factor analyses will be conducted to evaluate how well the instrument corresponded to the underlying constructs aimed to be measured (Remler & Van Ryzin, 2011). Additionally, nomological validity was assessed by exploring alternative models through SEM analysis. External validity refers to how well the results of a study can be generalized to other settings and contexts (Remler & Van Ryzin, 2011). The stratification of the quantitative sample to represent teachers from the population in

Ohio addressed external validity. However, the threat of external validity cannot be eliminated, thus, limitations of conclusions noted that findings may not be generalizable to other populations and contexts.

Trustworthiness of the Qualitative Research

To address trustworthiness, several approaches were used in this study. Chiefly, the mixed methods approach provided triangulation of data from multiple sources of evidence to help corroborate and support conclusions. By presenting a systematic design and clear reasoning for the sequential explanatory mixed methods design, the overlapping methods and in-depth descriptions of methodology establish dependability by allowing the work to be systematically repeated by a future researcher if desired (Marshall & Rossman, 2016; Shenton, 2004).

During the qualitative analysis, I incorporated specific strategies to ensure trustworthiness. First, prior to conducting the interviews, I wrote a summary of my own teaching experiences with school support, well-being, and resilience as a means of *epoche*. Moustakas (1994) advocated the process of *epoche* in phenomenology as both a preparation for qualitative analysis and an experience in itself where a researcher sets aside previous biases, judgments. By bracketing my personal experiences, I created a clear perspective before analyzing participants' experiences and fostered confirmability that the findings would result from the participants' experiences and not my own. Next, to establish credibility, I kept a reflective journal and field notes to document reflective commentary throughout the interviews and analysis as a way to monitor my own progressive subjectivity, or developing ideas, as the primary investigator in the study (Shenton, 2004). Memos were logged to document emergent themes and bracket personal

bias. To be cognizant of my theoretical framework, I revisited the concepts and theories that I used to inform my original approach and research design. During and after the interviews, I used member checking to verify the insights that I gleaned from participants' experiences. To further address credibility and transferability, I employed a negative case analysis by comparing the experiences of teachers with high teacher resilience to those with low teacher resilience. I worked through several iterations of refining the emergent themes and performed crosstab queries in Nvivo to facilitate the comparison of high versus low resilience teachers and look for patterns in the data. As the themes emerged from these experiences, I created a codebook to develop boundaries for each emergent theme and sub-theme and incorporated language shared by participants to help define each code. Further, by providing rich descriptions of each participant in the results section, I compared background data from participants to help establish the context for the study thereby allowing comparisons to be made from the findings and applied to a wider population (Shenton, 2004).

By disclosing one's positionality, personal experiences, and reasons for choosing the research, a researcher allows readers to identify how the researcher's interpretations have shaped the development of the study and, thus, enhance credibility and confirmability (Klenke, 2016; Remler & Van Ryzin, 2011; Shenton, 2004). In the next paragraph, I have described my experiences, positionality, and sense of purpose in terms of the proposed study.

As an educator of 20 years, I am passionate about helping people within the teaching profession because I have experienced the challenges and joys of teaching and feel a strong call to find ways to help teachers not only stay in the profession but flourish

within the profession so they can best serve their students. I also feel that educational leaders should strive to help teachers become resilient individuals and incorporate organizational practices which foster well-being. Beyond my professional experiences, from both a personal and public health perspective, I highly value health and holistic wellness, thus making resilience a particular topic of personal interest. Through my education in the biological sciences and psychology and my experiences as a mother, teacher, and personal trainer, I have observed a multitude of personal and contextual factors that influence personal well-being. Hence, the pragmatic nature of this study served as a means to better understand the nature of teacher well-being and resilience. Although my sense of purpose guides the practical value of my research, it may have posed bias in interpreting results because I may have been inclined to be overly optimistic about possible solutions for resilience and well-being. However, my background as a teacher also benefited the research because it helped me to relate to the participants and establish rapport based on common experiences. Nevertheless, using a humanist and pragmatist lens, I situated this study within my personal experiences and worldview to help teachers thrive as individuals and schools as organizations in the development of their policies and practices to support teachers.

By using open-ended questions in the qualitative interviews and selecting teachers who have low levels of resilience for part of the qualitative sample, I aimed to employ a negative case analysis approach, which entails discovering data that may contradict the emerging explanations to explore alternative explanations or disconfirming evidence for relationships between organizational support, teacher well-being, and teacher resilience (Lincoln & Guba, 1985; Shenton, 2004). Upon concluding the quantitative phase of the

study, there may have been reasons outside of the hypothesized quantitative relationships that emerged in the qualitative phase as influential in the development of teacher well-being and teacher resilience. Accordingly, keeping an open mind was critical during the qualitative data collection and analysis to seek possible alternative explanations and strengthen conclusions. To confirm participants' experiences with the variables of interest, member checking was utilized during and after the interviews. During interviews, statements were confirmed and clarified as needed (Shenton, 2004). After interviews, summaries of meaning units and themes were emailed to participants for member checks to seek corrections and further insights (Marshall & Rossman, 2018). Finally, to address the transferability of results, I described the demographics of participants and the schools in which they work to frame the context of the study (Shenton, 2004).

Ethical Considerations

To gain permission to solicit participants, building principals were contacted via email to obtain permission to contact teachers in their schools and to confirm agreement with school district policies. In phase one, an introductory statement was presented on the first page of the survey which contains descriptions of the following: the purpose of the study, explanation of risks and benefits, statement of confidentiality, statement regarding voluntary participation, and informed consent (see Appendix A). Thus, consent will be obtained when participants submit survey responses. At the end of the survey, participants could opt to be individually contacted for follow-up interviews. In phase two, before conducting interviews, participants received an informed consent letter via email describing the nature and purpose of the study, a statement of confidentiality, and a

statement ensuring voluntary participation from which participants can withdraw at any time during the study (see Appendix A). Participants were asked to reply to the email to express written consent and verbal consent was obtained at the start of each interview.

Data were confidential so as not to reveal any identifying information of participants. Individuals were not identifiable other than those participants who volunteer for interviews. Survey and interview data were stored as password-protected digital files. Survey and interview data were stored as separate files to further ensure any possible identification of participants. During interviews, participants were guided to avoid using specific names of individuals to whom they referred. When specific names were mentioned during interviews, such as those of principals, colleagues, or students, the names were removed prior to analysis to protect the anonymity of participants, especially to reduce any fear of retribution through possible assumed identity in the study results. Finally, to further protect identity, the names of participants were replaced with a pseudonym before analysis.

Methods of Data Analysis

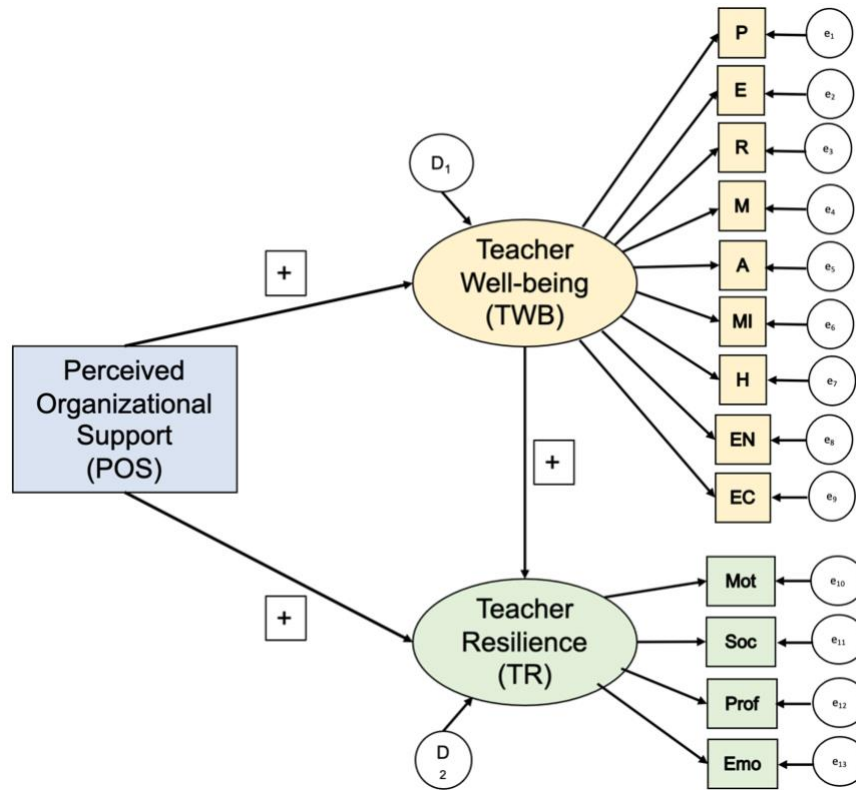
To integrate findings for this mixed-methods study, data analysis occurred separately for the quantitative and qualitative phases and in a combined fashion for the overall analysis of data. Following the explanatory sequential design, phase one quantitative analysis occurred first and was used to guide the sampling and data collection of the qualitative phase two. The overall analysis utilized data integration by interactively combining quantitative and qualitative data to interpret results in a rich, holistic way (Tashakkori & Teddlie, 2003).

Quantitative Data Analysis

To answer research question one and its associated sub-questions, quantitative data analyses included descriptive statistics, mediation analysis, and structural equation modeling (SEM). In SEM, proposed models are used to analyze the statistical relationships between sets of constructs and how these constructs are defined by variables. Latent variables (measuring constructs or ideas) cannot be directly measured and, thus, must be inferred from a group of manifest variables, or observed variables, which can be directly measured. The hypothesized measurement model is depicted in Figure 6. Latent variables in this study were teacher well-being (TWB) and teacher resilience (TR). Manifest variables included perceived organizational support (POS) as measured by the SPOS scale and composite scores for each factor measured by the PF-W and MTRS scales. The latent variable TWB was represented by the measurement variables from the PF-W of positive emotion (P), engagement (E), relationships (R), meaning (M), accomplishment (A), mindset (MI), physical health (PH), environment (EN), and economic security (EC) dimensions. The latent variable TR was represented by the composite scores for the measurement variables from the MTRS of motivational (Mot), emotional (Emot), social (Soc), and professional (Prof) dimensions. As shown in Figure 6, the hypothesized measurement model included hypothesized relationships between manifest and latent variables. Manifest variables were represented by rectangles or squares, latent variables were represented by ovals, and error terms (residuals) were represented by circles (Kline, 2016). Arrows with corresponding plus (or minus) signs represented the hypothesized direction of effects between variables.

Figure 6

Hypothesized Measurement Model for Relationships Among Variables



Note: The hypothesized structural model displays perceived organizational support (POS) in blue as an exogenous variable which has a direct effect on the latent variables of teacher well-being (TWB) and teacher resilience (TR) with TWB mediating the relationship between POS and TR. In yellow, the latent variable TWB is represented by the measurement variables of positive emotion (P), engagement (E), relationships (R), meaning (M), accomplishment (A), mindset (MI), physical health (PH), environment (EN), and economic security (EC) dimensions. In green, the latent variable TR is represented by the measurement variables of motivational (Mot), emotional (Emot), social (Soc), and professional (Prof) dimensions.

To answer RQ1, SEM was performed using IBM SPSS Amos Version 28.0 (IBM Corp., 2020). As outlined by Kline (2016), six steps for SEM were applied: specification, identification, measure selection and data collection, estimation, and reporting results.

Prior to analyses, as recommended by Tabachnick and Fidell (2013), data were screened for the following: sample size, missing data, univariate and multivariate outliers. Next, data were checked for meeting the necessary statistical assumptions required for CFA and SEM: normality, linearity, multicollinearity, and the factorability of the correlation matrix (**R**) (Tabachnick & Fidell, 2013). Descriptive statistics were gathered to summarize overall survey results and the demographics of participants. Composite scores for all items measuring each factor in the PF-W and MTRS scales were calculated. These composite scores were used as the manifest (observed) variables for the corresponding latent variables (Rose et al., 2019). To confirm previously reported measures of validity and reliability for the manifest variables that will be used to represent the latent variables for TWB and TR, CFA was conducted. Manifest variables included in the measurement model were based on the results of the CFAs by applying a minimum threshold of .32 for variable loadings in retaining factors (Kline, 2016).

Specification

In the first step of SEM, specification, a researcher expresses their hypotheses with graphical models displaying a representation of the proposed structural relationships between variables of interest in the study (Kline, 2016). In this study, the hypothesized relationships between variables were pictorially portrayed in the form of the hypothesized structural model (see Figure 7). Exogenous variables, or independent variables, are typically placed on the left side of the specified model, while endogenous variables, or

outcome (dependent) variables, are typically placed on the right side. Causes of exogenous variables are not included in the hypothesized model because they are independent variables, or predictors, not part of the proposed research questions, and, thus, not included in the corresponding analysis (Kline, 2016).

Identification

Identification involves the step of establishing that a specified graphical model meets the rules and restrictions for sound statistical analyses in SEM (Kline, 2016). A specified model is considered identified when it is theoretically viable for the statistical software to obtain a unique estimate of every model parameter, or the series of equations that correspond to the proposed relationships among variables. Two basic requirements exist for model identification according to Kline (2016): the model degrees of freedom (*df*) must be at least zero, and every latent variable, including disturbances or error terms, must be scaled. Models that do not have at least zero degrees of freedom are considered underidentified because they possess an infinite number of possible solutions using SEM estimation. Models that have zero degrees of freedom are considered just-identified because the estimated parameters equal the observations. A model is considered overidentified when the degrees of freedom are greater than zero because it has more observations than free parameters, and, thus, can be used to derive unique estimates (Kline, 2016). In addition, for models employing non-standard CFA (those models with complex indicators or error correlations), for each factor, there must be at least three indicators whose errors are not correlated with each other (Kline, 2016). Alternatively, there must be at least two indicators whose errors are uncorrelated, and either the errors of both indicators are not correlated with an error term of a third indicator of a different

factor, or, an equality constraint is used on the loadings of the two correlated indicators (Kline, 2016).

The hypothesized structural model (see Figure 6) contained 30 model parameters (q) which required statistical estimates: two direct effects from an exogenous variable (POS), 13 path coefficients, and 13 error terms, and two disturbances. There were 14 observed variables (consisting of composite scores from PF-W and MTRS factor items). Using the formula for calculating known values (known values, $p = p(p + 1)/2$), there could be no more than 105 estimated parameters. Thus, the df ($df = p - q$) will be greater than or equal to zero, or $df = 75$, and the model is overidentified ($df \geq 0$), fulfilling the first requirement for identification (Kline, 2016).

To meet the second requirement for identification, all latent variables including disturbances and error terms were assigned a scale (Kline, 2016). The latent variables in the proposed model included TWB and TR. Disturbances for these latent variables represented their unexplained variances or residual unspecified causes. To assign a scale for both the latent variables and their associated disturbances, the variances of TWB and TR and the path coefficients for each direct effect of their disturbance terms were fixed to equal the constant value of 1.0 (Kline, 2016). Hence, fulfilling the second general requirement for model identification.

Estimation

To answer RQ1_A, RQ1_B, and RQ1_C, and to complete the next step in SEM, model estimation was performed using IBM SPSS AMOS version 28.0. Estimation is the process of using a series of analyses to determine three elements: (1) evaluation of the model fit, or how well the model explains the data, (2) interpretation of the parameter

estimates, and (3) consideration of equivalent or near-equivalent models (Kline, 2016). There are two main types of estimation used in structural equation modeling, single-equation methods or simultaneous methods or full-information methods. Simultaneous methods are generally preferred in SEM analyses because they maximize the information in the data as specified by the model (Kline, 2016). Maximum likelihood (ML) estimation is the most commonly used simultaneous estimation method in SEM (Tabachnick & Fidell, 2013) because it can be used to estimate nonrecursive causal relations in path models and can analyze substantive latent variables (Kline, 2016). Additionally, although ML is recommended for continuous variables, ML is appropriate for ordinal data with more than five categories (Kline, 2016). Given these guidelines, ML was selected as the estimation method. As recommended by Tabachnick and Fidell (2013) for social science research and Kline (2016) for SEM, an alpha value of .05 ($\alpha = .05$) was applied as the value for determining the statistical significance of obtained test statistics.

To assess model fit, the following fit statistics were used: model chi-square test (χ^2), minimum discrepancy for χ^2 divided by degrees of freedom (CMIN/*df*), root mean square error of approximation (RMSEA), closeness of RMSEA fit probability (PCLOSE), comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), Normed Fit index (TLI), and standardized root mean square residual (SRMR). The fit indices and their cutoff criteria that were applied to assess model fit are summarized in Table 5. Model chi-square and CMIN/*df* were used to assess overall fit, CFI, GFI, AGFI, and TLI were used to assess goodness-of-fit, and RMSEA, PCLOSE, and SRMR were used as badness-of-fit indices.

Table 5*Summary of Cutoff Criteria for Selected Fit Statistics Used to Estimate Model Fit*

Fit Statistic:	Symbol/Shorthand:	Cutoff criterion for fit:
Model chi-square	χ^2	Nonsignificant value ($\alpha = .05$)
Minimum discrepancy/degrees freedom	CMIN/ <i>df</i>	< 2
Goodness-of-Fit Index	GFI	$\geq .95$
Adjusted Goodness-of-Fit Index	AGFI	$\geq .90$
Root mean square error of approximation	RMSEA	$\leq .10$
Closeness of RMSEA fit	PCLOSE	> .50
Comparative Fit Index	CFI	> .95
Normed Fit Index	NFI	> .95
Standardized root mean square residual	SRMR	$\leq .08$

Respecification

Upon the initial evaluation of model fit, a model is often respecified or reworked to better fit the data (Kline, 2016). Respecification may need to occur multiple times until a well-fitting model is generated which is parsimonious and can be supported by both theory and statistical logic. Fit indices provide information to help a researcher determine a model's lack of fit and should not be used to fully determine the plausibility of a model (Byrne, 2013). As reported in Chapter 4, the initial model did not meet the fit indices criteria specified in Table 5, thus, the model was respecified to adjust necessary parameters and re-identified before proceeding with the same process of estimation. Once the hypothesized model was rejected and respecification was pursued, fundamentally, the analysis shifted from a confirmatory approach to an exploratory approach (Byrne, 2013).

Byrne (2013) recommended using standardized residuals and modification indices to detect model misspecification and misfitting parameters. Residuals represent the

discrepancy implied between the hypothesized model and the sample covariance matrix, whereas standardized residuals are a calculation of each residual covariance divided by an estimate of its standard error (Byrne, 2013). Standardized residual covariance values were inspected and reported for values exceeding 2.58 as recommended by Jöreskog and Sörbom (1993) as large and of concern for misspecification.

Modification indices (MI) and expected parameter changes (EPC) are provided by AMOS to indicate the extent to which the hypothesized model is appropriately described in terms of the expected drop in the overall χ^2 value if the parameter were to be freely estimated in a subsequent estimation of the model (Byrne, 2013). Larger MI and EPC values represent paths to consider adding to the model in order to improve overall model fit but only if they meet three criteria according to Byrne (2013), “(a) they are substantively meaningful, (b) the existing model exhibits adequate fit, and (c) the EPC value is substantial” (p. 89). Although the model did not exhibit fully adequate fit according to the global and local fit testing, respecification was attempted based on theoretical and empirical considerations as suggested by Kline (2016). As reported in Chapter 4, using the largest MI and EPC values for covariances of error terms, covariance paths were added to respecify the model.

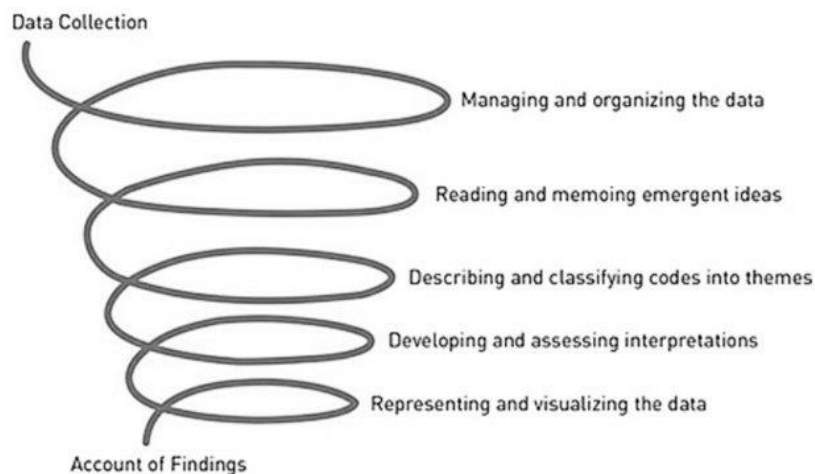
Lastly, an alternative model was considered (also using the fit statistics in Table 5) based upon theory, consideration of measurement instruments, and the MI and EPC values. Although none of the respecified models or the alternative model demonstrated acceptable fit, to examine possible answers for RQ1_B and RQ1_C, the parameter estimates were evaluated including the direct effects, indirect effects, and total effects of all variables for the closest fitting (Kline, 2016).

Qualitative Data Analysis

For the qualitative data analysis, to answer RQ2 and RQ3, I used phenomenological analysis to describe the lived experience of participants in terms of organizational support, teacher well-being, and teacher resilience. Data collection, analysis, and reporting are interrelated in qualitative research and typically occur simultaneously in an iterative and ongoing fashion throughout a study (Creswell & Poth, 2018). As such, data analysis can be pictured as a spiral process as represented by Creswell and Poth (2018) (Figure 7) with five major processes: (a) managing and organizing the data, (b) reading and memoing emergent ideas, (c) describing and classifying codes into themes, (d) developing interpretations, and (e) representing and visualizing the data.

Figure 7

Data Analysis Spiral (Creswell and Poth, 2018)



Note: Creswell and Poth (2018) represented the qualitative data analysis process as a series of analytic circles rather than linearly conducting analyses.

Furthermore, the data analysis process must be made explicit because qualitative researchers learn throughout the process of their studies (Creswell & Poth, 2018).

Consequently, describing and employing a systematic yet straightforward analysis plan helps to maximize insight gained from a study. For this study, I guided the qualitative analysis plan with principles from the phenomenological research approach of Moustakas (1994) and concepts from Creswell and Poth's (2018) data analysis spiral. Specifically, I used a six-step approach to analyze the qualitative interview data:

poche.

1. Created and organized data files from transcripts.
2. Considered each statement with respect to significance for a description of the experience.
3. Retained horizons – all nonrepetitive, nonoverlapping, and relevant meaning units.
4. Classification – derived and clustered invariant meaning units into themes and then into codes using open coding.
5. Structural synthesis - synthesized meaning units and themes into a textural description of the “what” of the experience by refining and comparing meaning units from codes.
6. Imaginative variation – reflectively developed a structural description of the “how” to illuminate the “what” of the phenomenon
7. Composite description – rich description of all the meanings and essence of the phenomenon.

Epoche, or bracketing, the disclosing of personal experiences, biases, and preconceived ideas, was achieved in many ways throughout the study. According to Moustakas (1994), “epoche gives us an original vantage point, a clearing of the mind,

space, and time” (p. 85). During the data collection and analysis, I kept a reflexive journal and recorded memos as a means of epoche, to reflect upon my self-understandings of my own biases, personal experiences, and values that are inherently part of the study (Creswell & Poth, 2018). I documented and reviewed these reflexive comments throughout the study to disclose and develop awareness of how my own experiences influenced the findings and inferences drawn from the study. I gathered research journal notes during and immediately after each interview as part of this ongoing epoche process to set aside personal thought processes, to reduce bias, and to approach the data collection with receptiveness for gaining clear observations (Moustakas, 1994). Additionally, throughout the qualitative data collection and analysis, I used memoing to document thought processes and decision-making related to phase two of the study. Memos are “short phrases, ideas, or key concepts” (Marshall & Rossman, 2018, p. 188) that arise while reading qualitative data and can serve as an audit trail of decision-making during qualitative analysis. Additionally, I used records of memoing to support the trustworthiness of the qualitative analytic process of this study (Marshall & Rossman, 2018).

I transcribed audio recordings from interviews using the Webex videoconferencing application and saved as files in Microsoft Word. To protect the identity of the participants, all names were replaced with pseudonyms and potentially identifying information was removed. I conducted an initial reading of the transcript files to obtain a general sense of findings before any organization and to consider each statement concerning significance for a description of the experience and logged memos to document emergent themes and bracket personal bias. In addition, I revisited my

theoretical framework to be mindful of the concepts and theories which had informed my approach and research design.

Next, I employed the process of phenomenological reduction to examine and describe the phenomenon through repeated iterations. This process requires a deliberate intention of being open to new interpretations of phenomena (Moustakas, 1994). I uploaded the resulting files into Nvivo 12.0 (QSR International, 2020) qualitative analysis software for the classification of data into codes. Next, I completed a second reading of the files to retain *horizons*, all nonrepetitive, nonoverlapping and relevant meaning units, and to consider emergent themes (Moustakas, 1994). As themes and corresponding codes emerged, I created a codebook to outline clear boundaries for each code by describing inclusion and exclusion criteria along with examples from the data to illustrate each code (Creswell & Poth, 2018). To further refine the data, I used the codes and sub-codes to derive and cluster invariant meaning units into the themes to represent the larger patterns found within the data. I applied three primary themes to discern patterns to answer research questions two and three: “support”, “threats”, and “protective factors” (Table 6). Once the data were coded, I conducted two additional readings of the retained meaning units and collapsed codes with overlapping meaning units to further clarify themes.

Table 6*Qualitative Data Analysis Process*

Analysis procedures	Description	Date and length of time
Data collection	Conducted interviews via Webex Documented reflexive notes and memos	December 3-15, 2022 (22 hours)
Data management and organization	Downloaded transcripts from Webex Created file for each interview transcript Uploaded transcript files to Nvivo 12.0 Created classifications for participants on Nvivo 12.0	December 28-January 7 (8 hours)
Reading and retaining	Read and edited transcriptions Documented emerging themes	January 8 - 15 (24 hours)
Classification and structural synthesis	Synthesized meaning units into codes and created codebook Categorized codes into emergent themes and sub-themes	January 16 – 29 (20 hours)
Imaginative variation	Compared high teacher resilience participants to low teacher resilience participants Coded significant statements to represent each theme and sub-theme Generated crosstab queries on Nvivo to systematically vary possible meanings of themes and sub-themes Further refined codebook and categorization of themes and sub-themes	January 30 – February 5 (16 hours)
Composite description	Developed a summary of each participant Develop a rich description of each theme and sub-themes utilizing significant statements and codebook	February 6 – 12 (18 hours)

Next, to develop and assess interpretations, I utilized the processes of structural synthesis and imaginative variation (Moustakas, 1994). Structural synthesis is used to synthesize meaning units and themes into a textural description of the “what” of the

experience and includes an exploration of “all possible meanings and divergent experiences” (Creswell & Poth, 2018, p. 98). Hence, the goal was for participants’ voices to be accurately represented based upon their accounts of their unique experiences with the phenomenon. Using the structural synthesis statements, I applied a deeper interpretative process known as imaginative variation. Moustakas (1994) presented four steps for imaginative variation:

1. Considering the systematic varying of all the possible structural meanings.
2. Recognizing underlying themes or contexts that account for the phenomenon.
3. Considering universal structures that guide feelings and thoughts of participants concerning the phenomenon (time, space, relation to self or others).
4. Searching for examples in the data that illustrate the structural themes and facilitate the writing of the final structural description of the phenomenon.

To employ the process of imaginative variation, Moustakas (1994) recommended searching for "exemplifications that vividly illustrate the invariant structural themes and facilitate the development of a structural description of the phenomenon" (p. 99). I read through each code again and selected significant statements that represented the essence of the experience for each codes. Specifically, I looked for statements that conveyed emotion about the experience, especially in terms of the "why" or "how" to explain why the phenomenon was significant to participants. I utilized this process to reflectively develop a structural description of the “how” to illuminate the “what” of the phenomenon. While selecting these significant statements, it turned out to be an additional pass of the data because I further refined the coding. Also, choosing the significant statements guided me in the process of phenomenological imaginative

variation because I varied perspectives of the phenomenon from different vantage points of the participants and opposite meanings of the themes (Moustakas, 1994). For example, I considered the positive side of disciplinary support and the negative side of student behavior according to the essence of the significant statements selected for each code.

Next, to systematically vary the possible structural meanings underlying the codes and themes, I created queries of crosstab matrices in Nvivo 12.0 to examine patterns of codes between the groups of high-resilience and low-resilience teachers. I created a crosstab matrix for the following: high-resilience versus low-resilience for all themes, high-resilience versus low-resilience individually for protective factors, threats, and support and the associated codes and sub codes for each theme.

Lastly, to represent and visualize the data, I generated a composite description to provide a rich description of all the meanings, deep structure, and essence of the phenomenon (Creswell & Poth, 2018; Moustakas, 1994). This final step in phenomenological analysis is used to create a unified statement of the essence of the phenomenon as a whole (Moustakas, 1994). First, I wrote a summary of each participant. I started with the lowest teacher resilience sum score participant and worked my way up the continuum to the highest teacher resilience sum score as a means of imaginative variation to vary perspectives and consider freely the possible dynamics (Moustakas, 1994) that underlie the essence of teacher well-being and resilience. Additionally, writing these descriptions helped me further the processes of structural synthesis and imaginative variation because I could recount each participant's experience and note the variation in their experiences from participant to participant. Next, I wrote a summary of each theme and sub-theme.

Organization of Reporting of Results

I reported findings from the study by organizing results into phase one and phase two findings. For each section, I summarized results by research questions addressed in each phase along with associated data. I displayed phase one quantitative results in tables and figures along with corresponding detailed narrative descriptions. I also displayed phase two qualitative results in tables and figures and additionally include verbatim examples of participant data, textural and structural descriptions, and a synthesis of meanings and essences of the experiences (Creswell & Poth, 2018). Finally, to convey data integration of both quantitative and qualitative results, I combined findings and used the qualitative results to explain the quantitative results (Decuir-Gunby & Schutz, 2017). Specifically, I used the qualitative data to expand, support, and contradict the quantitative results (Decuir-Gunby & Schutz, 2017). I created a pictorial joint display of results to highlight the integration of data as well as a narrative approach to describe integrated findings.

Chapter Summary

In this chapter, I described the research design and methods that were utilized for this sequential explanatory mixed-methods study which aims to examine relationships among perceived organizational support, teacher well-being, and teacher resilience in secondary teachers (grades 7-12) with more than eight years of teaching experience. In phase one of the study, I collected quantitative data by surveying teachers from secondary schools in Ohio using instruments to measure perceived organizational support, teacher well-being, and teacher resilience with instruments possessing previously established validity and reliability. I conducted structural equation modeling analyses to answer

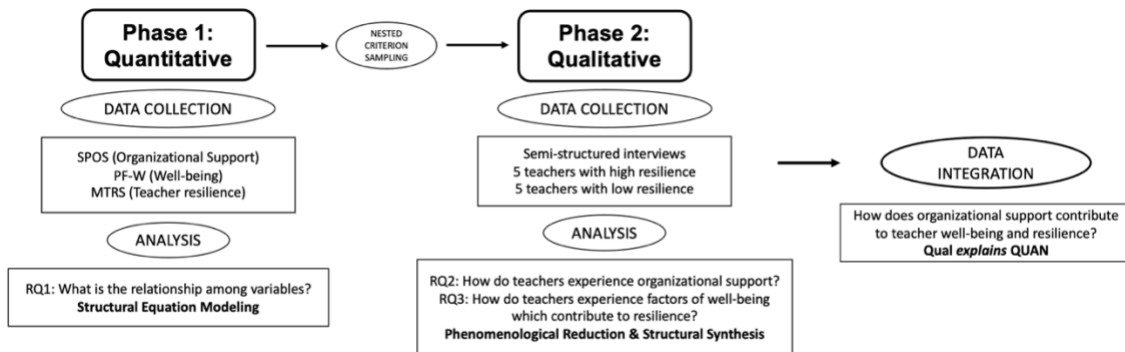
research question one regarding relationships among perceived organizational support, teacher well-being, and teacher resilience. In phase two, I selected participants from the quantitative results using nested criterion sampling to conduct follow-up interviews of teachers whose survey results indicated high and low levels of resilience. I analyzed qualitative interview data through phenomenological analysis to answer research questions three and four by developing a thick, rich composite description of the essence of teachers' experiences with the variables of interest. To draw final overarching inferences, I employed data integration to combine findings and use the qualitative findings to explain the quantitative findings.

Chapter 4: Results

The purpose of this study was to investigate the relationships between perceived organizational support, teacher well-being, and teacher resilience in secondary (grade 6-12) teachers in Ohio public schools within the contexts of schools as organizations. It was hypothesized that when teachers experience higher levels of school support, then they will have corresponding increased levels of teacher well-being and teacher resilience. This proposition was grounded in relevant findings from relational-cultural theory (Jordan, 2004; Jordan et al., 1991), organizational support theory (Eisenberger et al., 1986; Eisenberger, 2016; Gouldner, 1960; Levinson, 1965), Seligman's (2018) model of subjective well-being, and Mansfield et al's (2016) teacher resilience framework. Based upon these underpinnings and employing a pragmatist approach, an explanatory sequential mixed methods research design was employed in order to gather multiple sources of evidence and triangulate findings (Decuir-Gunby & Schutz, 2017). Chapter four summarizes the results of the study which was conducted in two phases, a quantitative phase followed by a qualitative phase (Figure 8).

Figure 8

Research Design Flowchart



The research questions posed were as follows:

RQ1: What is the structure of the relationships between perceived organizational support, teacher well-being, and teacher resilience?

RQ 1A: Is the estimated population covariance matrix generated by the hypothesized structural model for perceived organizational support, teacher well-being, and teacher resilience, consistent with the sample covariance matrix?

RQ 1B: How much of the variance in teacher resilience, both latent and observed, is accounted for by POS and teacher well-being? Of POS and teacher well-being, which variable accounts for the most variance in teacher resilience?

RQ 1C: What are the direct effects, indirect effects, and total effects among the variables, POS, teacher well-being, and teacher resilience included in the hypothesized structural model? Within the model, what is the relevant importance of various paths? Is the relationship between Perceived

Organizational Support and teacher resilience mediated by teacher well-being?

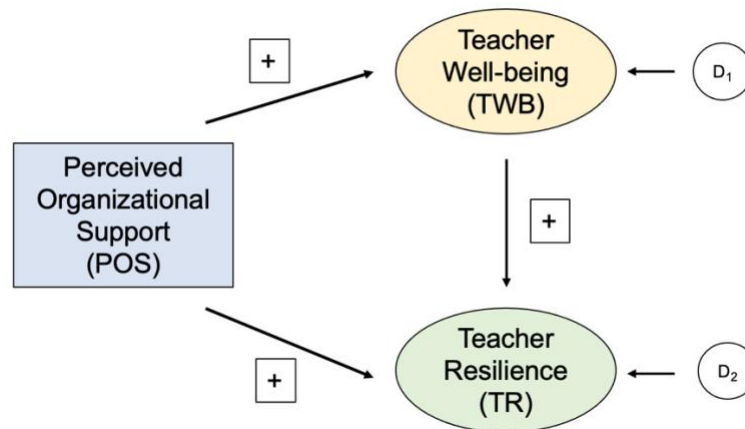
RQ2: How do teachers describe their experiences with organizational support and how does it contribute to teacher resilience in the school context?

RQ3: What do teachers experience in their school contexts that contribute to their own well-being and resilience as a teacher?

For RQ1, drawing from theory and prior research, a hypothesized structural model was proposed for phase one of the study to hypothesize the structure of the relationships among POS, TWB, and TR (Figure 9).

Figure 9

Hypothesized Model for Relationships Among Variables



Data were collected from a survey in phase one and semi-constructed interviews in phase two. Phase one investigated research question one, and phase two focused on research questions two and three. For phase one, survey data were collected from May 8, 2022 to November 2, 2022, with a pause in data collection during the summer when teachers were not working. Participants had from three to eleven weeks to respond to the

survey depending on when they received the initial invitation. Additionally, results from phase one were used to guide the data collection of phase two to further explain the quantitative findings. For phase two, interviews were conducted from December 3 – 15, 2022. Finally, data integration was used to combine findings from both phases of the study and use the qualitative results to explain the quantitative results using to develop additional perspectives (Decuir-Gunby & Schutz, 2017).

Quantitative Results

Phase one of this study was designed to answer RQ1 regarding the structure of the relationships among perceived organizational support (POS), teacher well-being (TWB), and teacher resilience (TR). Quantitative data were collected using a survey designed to measure teachers' POS, TWB, and TR in secondary Ohio public school teachers (grades 6-12) and to explore the relationships among these variables. Structural equation modeling was used to answer research question one and its associated sub-questions.

Description of the Sample and Setting

Phase one of the study took place in Ohio public schools in August through October, 2022. During the 2019-20 academic year, there were 50,010 secondary school teachers in Ohio (Bureau of Labor Statistics, 2020). Survey recruitment was conducted during May 2022 and August 1, 2022 - November 2, 2022 by sending emails to principals at 201 schools, including traditional, vocational, and STEM schools. Principals were asked to distribute surveys to their staff and were provided with a Qualtrics link to the survey. Demographics for Ohio secondary teachers and the sample are reported in Table 7.

Table 7*Demographics for Ohio Teachers and Sample*

	Ohio teachers %	Sample teachers %
Race		
American Indian or Alaskan Native	0.1	0
Asian or Pacific Islander	0.6	0
Black	4.6	2.7
Hispanic	0.9	0.4
White	93.7	96.5
Multiracial	0.3	0.4
Gender		
Female	75.1	72.3
Male	24.9	27.3
Type of School		
Urban/Small Town	46.2	18.5
Suburban	35.8	53.5
Rural	15.6	8.2
Vocational	2.1	10.3
STEM	0.2	8.2

Note: $N = 50,010$ population Ohio secondary school teachers (Bureau of Labor Statistics, 2020), demographics (Ohio Department of Education, 2022); $n = 254$ sample of Ohio secondary school teachers

Response Rate to Survey

There were 399 total valid responses to the Qualtrics survey. Although the ideal sample for phase one was 660 based upon calculations for the Structural Equation Modeling (SEM) model parameters, the minimum sample size for SEM analyses is commonly accepted at $N = 200$ (Kline, 2016). Thus, despite several reminders sent to principals and an incentive offered to participants for completion of the survey, data collection was ended after the valid sample exceeded the minimum recommendations for SEM. Of the 201 schools contacted, a possible total of 8167 could have received the

survey invitation. Of the 399 cases, 139 were deleted due to missing data in excess of 30% (Hair, 2009) resulting in 260 viable cases to answer research question one and a response rate of 3.18%. Although this response rate was low and may have suggested nonresponse bias (Remler & Van Ryzin, 2011), recent findings indicate that web survey response rates yield lower response rates than other survey modes (Daikeler et al., 2020) but evidence indicates little to no relationship between nonresponse bias and response rate (Hendra & Hill, 2019). Additionally, the pursuit of high response rates may lengthen the recruitment period, leading to measurement problems (Hendra & Hill, 2019).

Reliability and Validity of Scales

Reliability analyses were conducted using SPSS 28.0 to check the reliability and compare against previously reported reliability for each scale used to construct the survey: the Survey of Perceived Organizational Support (SPOS) (Eisenberger et al., 1986), the Positive Functioning at Work scale (PF-W) (Donaldson & Donaldson, 2020), and the Multidimensional Teacher Resilience scale (MTRS) (Mansfield & Wosnitza, 2015). Each scale had good reliability for the total scale ($\alpha > .80$) as shown in Table 8. Additionally, reliability was calculated using SPSS 28.0 for each factor of the two multidimensional scales: PF-W (Donaldson & Donaldson, 2020), and the MTRS (Mansfield & Wosnitza, 2015). All factors showed acceptable reliability ($\alpha > .70$) except for Teacher Resilience (TR) Emotional ($\alpha = .67$), Teacher Well-being (TWB) Accomplishment ($\alpha = .68$), TWB Engagement ($\alpha = .69$), and TWB Environment ($\alpha = .44$) (Table 8). Since these four factors did not meet the threshold for acceptable reliability, it was noted to consider these factors when analyzing the results of the SEM analysis, but they were retained because the total scale reliabilities were good ($\alpha > .80$).

Table 8*Summary of Reliabilities of Survey Scales*

Scale	Factor	# of Items	Cronbach's α	
			Current Study	Literature ^a
SPOS	--	8	.94	.92
PF-W		29	.85	.94
	Positive Affect	3	.88	.93
	Engagement	3	.69	.88
	Relationships	4	.92	.90
	Meaning	3	.84	.91
	Accomplishment	3	.68	.81
	Mindset	3	.76	.85
	Health	4	.83	.86
	Environment	3	.44	.76
	Economic security	3	.76	.84
MTRS		26	.85	.78
	Motivational	12	.84	.78
	Social	6	.81	.72
	Professional	4	.75	.74
	Emotional	4	.67	.86

Note: ^a Literature findings based on previously reported reliabilities for: 8-item SPOS = survey of Perceived Organizational Support (Hutchison, 1997); PF-W = Positive Functioning at Work Scale (Donaldson & Donaldson, 2020); MTRS = Multidimensional Teacher Resilience Scale (Peixoto et al., 2020)

Confirmatory factor analyses (CFA) were conducted to confirm previously reported validity for the two multidimensional scales used in the survey, PF-W (Donaldson & Donaldson, 2020), and the MTRS (Mansfield & Wosnitza, 2015). To assess model fit, recommended used fit indices were compared to results of the CFA: model chi-square value/degrees of freedom (CMIN/*df*), the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR) (Kline 2016). Results of the CFA analyses results for the PF-W and MTRS scales are shown in Table 8. With the

exception of the CMIN/*df* global fit index for MTRS, the obtained values met the cutoff criterion for acceptable fit. As the CMIN/*df* is not considered a reliable standard for assessing overall model fit as a singular value (Kline, 2016), it was decided to retain all items on both scales.

Table 9

Summary of Model Fit Indices for Scale Confirmatory Factor Analyses

Scale	Fit Index	Obtained value	Cutoff criterion
PF-W	CMIN/ <i>df</i>	2.273	< 3.0
	CFI	.913	> .90
	RMSEA	.071	< .10
	SRMR	.0564	< .08
MTRS	CMIN/ <i>df</i>	3.048	< 3.0
	CFI	.988	> .90
	RMSEA	.091	< .10
	SRMR	.0188	< .08

Note. Value in bold print exceeded global fit index.

Data Screening and Assumptions Check

Prior to SEM analysis, data were screened for missingness (cases and variables) and unengaged responses (standard deviation across participant responses). Also, composite scores were calculated for each dimension from the survey scales.

Assumptions were checked for SEM by examining the following: linearity, absence of multicollinearity and singularity, normality, and outliers.

Missing Data

Responses were examined for missing data. Of the 399 cases, 139 were deleted due to missing data due to incomplete responses in excess of 5% missing not at random (MNAR) (Tabachnick & Fidell, 2013) resulting in 260 viable cases. Variables (survey

questions) were also examined for missing data. No variables exceeded 5% missing data, thus guidelines for missingness were met (Tabachnick & Fidell, 2013). Of 67 survey questions, a total of 38 variables had missing values of less than 5%. Missing values in variables were imputed by replacing with the median of all nearby data points using SPSS (Tabachnick & Fidell, 2013). The median was used as the measure of central tendency for imputation because survey data were ordinal.

Unengaged Responses

Unengaged responding is a type of response bias in survey responses found when participants disregard the item content and do not provide accurate responses (Schroeders et al., 2022). Data were screened for unengaged responses in participants who demonstrated careless responding by examining the standard deviation, or intra-individual response variability (IRV), across each participant's responses (Dunn et al., 2018; Schroeders et al., 2022). No participants had an IRV less than 0.25, thus, no cases were deleted due to careless responding.

Composite Scores

In order to run assumptions checks for linearity, multicollinearity and multivariate outliers, composite scores were calculated for each dimension of the latent constructs Teacher Well-Being (TWB) and Teacher Resilience (TR) by computing the mean for all respondents for the set of items that represented each dimension, resulting in nine composite scores for TWB and four composite scores for TR (Table 9) (Rose et al., 2019). The mean of each dimension was calculated because these items represented previously established and validated factors, or dimensions, for the selected survey instruments (PF-W and MTRS). A composite score was also calculated for Perceived

Organizational Support (POS) by computing the mean of all eight items for each respondent from the SPOS as a unidimensional measure (Table 9).

Table 10

Summary Statistics of Composite Scores for Variables

Composite Score	Mean	Std. Deviation
POS Composite	3.91	1.09
TWB Positive Affect	4.61	0.89
TWB Engagement	4.76	0.87
TWB Relationships	4.78	0.94
TWB Meaning	5.36	0.59
TWB Accomplishment	4.95	0.64
TWB Health	4.50	0.94
TWB Mindset	4.47	0.95
TWB Environment	3.84	1.04
TWB Economic Security	3.54	1.25
TR Emotional	4.31	0.78
TR Motivational	4.83	0.52
TR Professional	5.03	0.63
TR Social	5.01	0.58

Note. All items were measured on a 6-point Likert scale (1=strongly disagree, 6 = strongly agree). Reverse coded items were scored correspondingly (6=strongly disagree, 1 = strongly agree).

Linearity

Using the composite scores for POS, TWB, and TR, SPSS 28.0 was used to conduct deviation from linearity tests for all pairs of variables through Analysis of Variance (ANOVA) to test for deviations from linear relationships ($p < .05$). Seven pairs of variables indicated possible deviation from linearity ($p > .05$) (Table 10), thus, an additional linear regression was conducted on these pairs of variables to further examine

significance of linearity. The regression of these four pairs of variables indicated significant linearity ($p < .001$) (Table 10), thus transformation of data was deemed unnecessary.

Table 11

Summary of Deviation from Linearity and Linear Regression for Paired Variables Indicating Multivariate Deviation from Linearity

Pair of Variables	Deviation from Linearity (ANOVA)			Linear Regression of Variable Pair		
	<i>df</i>	<i>F</i>	Sig.	<i>df</i>	<i>F</i>	Sig.
TWB- Mindset*TR-Motivation	13	2.718	.001	1	93.595	<.001
TWB- Mindset*TR-Social	13	2.177	.011	1	15.986	<.001
TWB- Health*TR-Motivation	18	2.307	.002	1	38.298	<.001
TWB- Health*TR-Social	18	2.911	<.001	1	12.352	<.001
TWB- Relationships* POS	39	1.517	.034	1	62.181	<.001
TWB- Mindset*POS	39	1.634	.015	1	133.547	<.001
TWB-Environment*POS	39	1.530	.031	1	22.09	<.001

Note. For the ANOVA Deviation from Linearity test, $p < .05$ indicates possible deviation from linearity. For Linear Regression, $p < .05$ indicates a significant linear relationship.

Multicollinearity

Bivariate correlation and linear regression were conducted for each pair of composite variables to examine the data for possible problems with multicollinearity and singularity. The bivariate correlation matrix showed three variable pairs with moderate to strong correlation ($r > .6$): TWB Mindset and TWB Positive Affect ($r = .630$), TWB Accomplishment and TR Motivational ($r = .664$), and TR Social and TR Motivational ($r = .602$) (Table 11). However, for each linear regression for all pairs of variables, the obtained values for tolerance were in the acceptable range ($> .10$) as well as the variance inflation factor ($VIF < 10$) (Kline, 2016). Thus, the assumption for absence of multicollinearity and singularity was met.

Table 12*Bivariate Correlations between Composite Variables for POS, TWB, and TR.*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. TWB Positive Affect	1	.118	.317**	.386**	.451**	.277**	.630**	.301**	.109	.282**	.540**	.296**	.315**	.498**
2. TWB Engagement	.118	1	.094	.203**	.203**	.034	.172**	.114	.070	-.070	.226**	.094	.094	.069
3. TWB Relationships	.317**	.094	1	.265**	.220**	.214**	.361**	.216**	.024	.244**	.288**	.174**	.418**	.441**
4. TWB Meaning	.386**	.203**	.265**	1	.459**	.050	.352**	.306**	-.048	.235**	.505**	.359**	.438**	.254**
5. TWB Accomplishment	.451**	.203**	.220**	.459**	1	.191**	.490**	.366**	-.011	.245**	.664**	.434**	.417**	.211**
6. TWB Health	.277**	.034	.214**	.050	.191**	1	.263**	.256**	.235**	.391**	.360**	.189**	.214**	.281**
7. TWB Mindset	.630**	.172**	.361**	.352**	.490**	.263**	1	.374**	.063	.283**	.516**	.262**	.242**	.584**
8. TWB Environment	.301**	.114	.216**	.306**	.366**	.256**	.374**	1	.118	.212**	.375**	.291**	.199**	.280**
9. TWB Economic Security	.109	.070	.024	-.048	-.011	.235**	.063	.118	1	.070	.061	.052	-.062	.107
10. TR Emotional	.282**	-.070	.244**	.235**	.245**	.391**	.283**	.212**	.070	1	.542**	.343**	.445**	.331**
11. TR Motivational	.540**	.226**	.288**	.505**	.664**	.360**	.516**	.375**	.061	.542**	1	.587**	.602**	.338**
12. TR Professional	.296**	.094	.174**	.359**	.434**	.189**	.262**	.291**	.052	.343**	.587**	1	.443**	.144*
13. TR Social	.315**	.094	.418**	.438**	.417**	.214**	.242**	.199**	-.062	.445**	.602**	.443**	1	.313**
14. POS Composite	.498**	.069	.441**	.254**	.211**	.281**	.584**	.280**	.107	.331**	.338**	.144*	.313**	1

Note. $n = 260$. TWB = Teacher Well-being; TR = Teacher Resilience; POS = Perceived Organizational Support. Values that are bolded represent moderate to strong correlations ($r > .60$) and possible sources of multicollinearity.

Normality

All variables were screened for univariate normality assumptions using SPSS 28.0. Item responses were screened for skewness and kurtosis by using SPSS 28.0 to generate frequencies charts for mean, median, mode, skewness, and kurtosis. Skewness values greater than 3.0 indicate severe skewness and kurtosis values greater than 10.0 suggest a problem while kurtosis values greater than 20.0 indicate a serious problem (Kline, 2016). All variables met guidelines for skewness (< 3.0) and kurtosis (< 10.0) except for the demographic variable of race (skewness = 9.42, kurtosis = 97.795).

Histograms of each item were also generated to inspect normality. No items indicated a bimodal distribution.

Multivariate normality was assessed using SPSS Amos 28.0 to inspect the critical ratio representing Mardia's coefficient, a normalized estimate of multivariate kurtosis

(Byrne, 2013). The obtained value for the critical ratio (c.r.) of Mardia's coefficient was 20.414 and exceeded the recommended value for specifying multivariate normality (c.r. < 5.0) (Byrne, 2013). However, Mardia's coefficient alone does not fully assess nonnormality because it is highly sensitive to large sample sizes (Stevens, 2009). If Mardia's coefficient exceeds, it is recommended to inspect kurtosis values for individual variables. Thus, since the kurtosis values for each individual variable were acceptable (< 10) and SEM using Maximum Likelihood (ML) is considered robust against violations of multivariate normality when univariate normality is acceptable, no transformations were made to the variables prior to conducting the SEM analysis (Stevens, 2009).

Outliers

No univariate outliers were detected. Multivariate outliers were checked using SPSS Amos 28.0 to calculate the Mahalanobis distance for all 14 composite variables. Six cases were found to be multivariate outliers ($df = 14, p < .001$) and excluded from the analysis. The resulting dataset had a sample size of 254, which met the minimum sample requirements for SEM ($n = 200$) (Kline, 2016)

Research Question One

Upon screening the data, SEM analysis was conducted using SPSS Amos 28.0 on the final sample of 254 to answer research question one and the associated sub-questions. Maximum likelihood (ML) estimation, the most commonly used simultaneous estimation method in SEM (Tabachnick & Fidell, 2013), was used as the method of estimation for SEM because it can be used to estimate nonrecursive causal relations in path models and can analyze substantive latent variables (Kline, 2016). Although ML is recommended for continuous variables, ML is appropriate for ordinal data with more than five categories

Research Question 1A

The goal of research question 1A was to determine model fit of the hypothesized structural model using the sample covariance matrix and to explore if the model could be respecified to improve the overall model fit:

RQ 1A: Is the estimated population covariance matrix generated by the hypothesized structural model for perceived organizational support, teacher well-being, and teacher resilience, consistent with the sample covariance matrix?

Fit statistics were used to estimate model fit. To assess absolute fit, the model chi-square test (χ^2) and minimum discrepancy divided by degrees of freedom (CMIN/*df*) were used. To assess goodness-of-fit, the Goodness-of-Fit Index (GFI), and Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), and the Normed Fit Index (NFI) were used. To assess badness-of-fit, the root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR) were used. Cutoff criteria for fit indices are shown in Table 12. As recommended by Tabachnick and Fidell (2013) for social science research and Kline (2016) for SEM, an alpha value of .05 ($\alpha = .05$) was applied as the value for determining the statistical significance of obtained test statistics. The initial model (Figure 10) was recursive with 105 data points, 30 parameters to be estimated, and 75 degrees of freedom. Path coefficients for the direct effects of error terms (or disturbances) were fixed to the constant of 1.0. The initial model was deemed a poor fit based on fit statistics as shown in Table 12.

Figure 10

Model 1

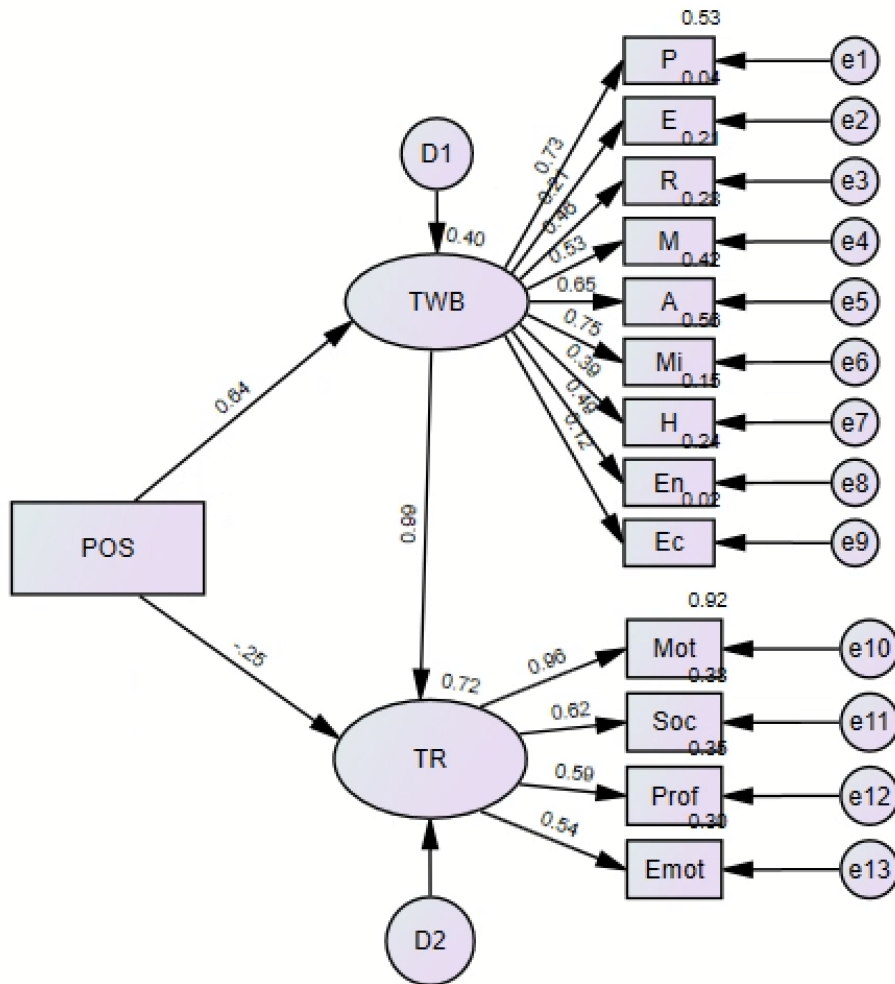


Figure 10. Model 1. POS = composite score for perceived organizational support; TWB = teacher well-being; TR = teacher resilience; P = positive affect; E = engagement; R = relationships; M = meaning; A = accomplishment; Mi = mindset, H = health; En = environment, Ec = economic security; Mot = motivation, Soc =social; Prof = professional; Emot = emotional. Error terms: e1= teacher well-being (TWB) Positive Affect, e2 = TWB Engagement, e3 = TWB Relationships, e4 = TWB Meaning, e5 = TWB Accomplishment, e6 = TWB Mindset, e7 = TWB Health, e8 = TWB Environment,

e9 = TWB Economic Security, e10 = teacher resilience (TR) Motivation, e11 = TR Social, e12 = TR Professional, e13 = TR Emotional, D1 = disturbance (or error term) for TWB; D2 = disturbance (or error term) for TR.

Table 13

Model 1 Summary of Cutoff Criteria for Fit Statistics Used to Estimate Model Fit

Fit Statistic	Obtained values	Cutoff criterion for fit
p of χ^2	.000	> .05 (Kline, 2016)
χ^2 (CMIN)	271.054	$\geq df$
df	75	> 0
CMIN/ df	3.614	< 3.0 (Kline, 2016)
GFI	.859	$\geq .95$ (Tabachnik & Fidell, 2013)
AGFI	.803	$\geq .90$ (Tabachnik & Fidell, 2013)
RMSEA	.102	$\leq .10$ (Kline, 2016)
PCLOSE	.000	> .50 (Byrne, 2013)
CFI	.827	> .95 (Kline, 2016)
NFI	.779	> .95 (Tabachnik & Fidell, 2013)
SRMR	.0732	$\leq .08$ (Tabachnik & Fidell, 2013)

Note. $n = 254$ secondary school teachers (grades 6-12). p of χ^2 = probability value of model chi-square test statistic; CMIN/ df = minimum discrepancy divided by degrees of freedom; GFI = Goodness-of Fit Index; AGFI = Adjusted Goodness-of Fit Index; RMSEA = root mean square error of approximation; PCLOSE = p -value for the RMSEA test of close fit; CFI = Comparative Fit Index; NFI = Normed Fit Index; SRMR = standardized root mean square residual.

Respecification. Since the initial model did not meet the fit indices criteria specified in Table 12, to attempt to improve model fit, the model was respecified to adjust necessary parameters and re-identified before proceeding with the same process of estimation. There were five models in total. Model 1 was the original hypothesized structural model. In model 2, a covariance was added between the error terms for TWB

Relationships and TR Social. In model 3, covariances were added between the error terms for TWB Relationships and TR Social, and TWB Health and TR Emotional. In model 4, covariances were added between the error terms for the following: TWB Engagement and TR Emotional, TWB Relationships and TR Social, TWB Health and TWB Economic, TWB Health and TR Emotional.

After the hypothesized model was rejected and respecification was pursued, the analysis shifted from a confirmatory approach to an exploratory approach (Byrne, 2013). For each respecification, the following aspects were considered: underlying theory of the proposed model, standardized residual covariances, modification indices (MI) and expected parameter changes (EPC) (Byrne, 2013; Kline, 2016). Modification indices and EPC were used to determine which parameters could be modified to improve overall model fit with the greatest reduction in the model χ^2 value. The largest standardized residual covariances were among POS and Accomplishment (-3.093), TWB Economic and TWB Health (3.062), TWB Health and TR Emotional (3.166), and TWB Relationships and TR Social (2.86) indicating strong covariances between these variables. It was decided to not respecify by adding a covariance among POS and the error term of TWB Accomplishment because the negative covariance was the opposite of the predicted effect of the paths in the model. Using the MI and EPC values, the results of the initial model indicated that adding a covariance between the error terms of TWB Relationships and TR Social (Figure 11) would contribute to the greatest improvement to overall model fit by decreasing the model χ^2 value by at least 24.59. Based on theory, it could also be justified that a positive covariance would exist between TWB Relationships

and TR Social because both dimensions of each latent construct involve supportive relationships with colleagues.

Figure 11

Model 2

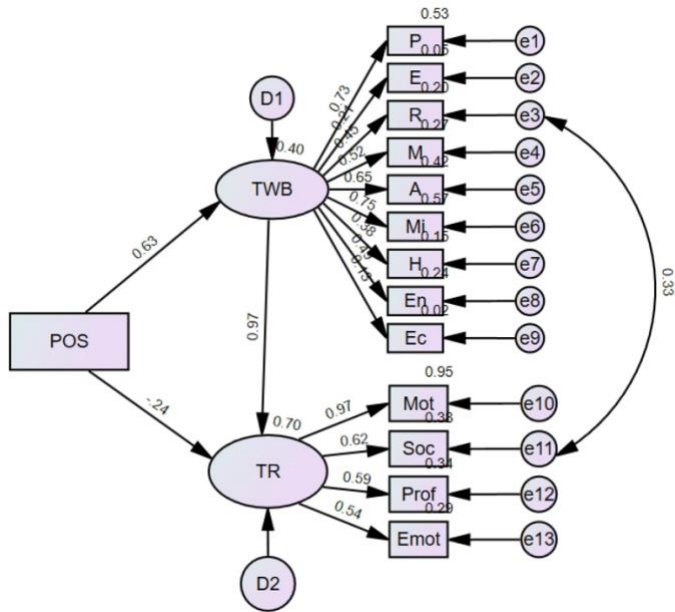


Figure 11. Model 2. POS = composite score for perceived organizational support; TWB = teacher well-being; TR = teacher resilience; P = positive affect; E = engagement; R = relationships; M = meaning; A = accomplishment; Mi = mindset, H = health; En = environment, Ec = economic security; Mot = motivation, Soc =social; Prof = professional; Emot = emotional. Error terms: e1= teacher well-being (TWB) Positive Affect, e2 = TWB Engagement, e3 = TWB Relationships, e4 = TWB Meaning, e5 = TWB Accomplishment, e6 = TWB Mindset, e7 = TWB Health, e8 = TWB Environment, e9 = TWB Economic Security, e10 = teacher resilience (TR) Motivation, e11 = TR Social, e12 = TR Professional, e13 = TR Emotional, D1 = disturbance (or error term) for TWB; D2 = disturbance (or error term) for TR.

Model 2 was recursive, had 105 data points, 31 parameters to be estimated, and a resulting 74 degrees of freedom. Although obtained values slightly improved based on the same fit indices used for the initial model, Model 2 was deemed an unacceptable fit (Table 13).

Table 14

Model 2 Summary of Cutoff Criteria for Fit Statistics Used to Estimate Model Fit

Fit Statistic	Obtained values	Cutoff criterion for fit
p of χ^2	.000	> .05 (Kline, 2016)
χ^2 (CMIN)	244.667	$\geq df$
df	74	> 0
CMIN/DF	3.306	< 3.0 (Kline, 2016)
GFI	.871	$\geq .95$ (Tabachnik & Fidell, 2013)
AGFI	.817	$\geq .90$ (Tabachnik & Fidell, 2013)
RMSEA	.095	$\leq .10$ (Kline, 2016)
PCLOSE	.000	> .50 (Byrne, 2013)
CFI	.850	> .95 (Kline, 2016)
NFI	.800	> .95 (Tabachnik & Fidell, 2013)
SRMR	.0714	$\leq .08$ (Tabachnik & Fidell, 2013)

Note. $n = 254$ secondary school teachers (grades 6-12). p of χ^2 = probability value of model chi-square test statistic; CMIN/DF = minimum discrepancy divided by degrees of freedom; GFI = Goodness-of Fit Index; AGFI = Adjusted Goodness-of Fit Index; RMSEA = root mean square error of approximation; PCLOSE = p-value for the RMSEA test of close fit; CFI = Comparative Fit Index; NFI = Normed Fit Index; SRMR = standardized root mean square residual.

Similar to Model 1, MI, EPC, and standardized residual covariance values were inspected to detect if paths could be added to improve model fit. The largest standardized residual covariances were among POS and Accomplishment (-3.067), TWB Economic and TWB Health (3.044), and TWB Health (3.262) and TR Emotional (-2.781) indicating

strong covariances between these variables. Again, it was decided to not respecify by adding a covariance among POS and the error term of TWB Accomplishment because the negative covariance was opposite of the predicted effect of the paths in the model. Also, the results indicated that adding an additional covariance between the error terms of TWB Health and TR Emotional (Figure 12) would contribute to the greatest improvement to overall model fit by decreasing the model χ^2 value by at least 14.852. Theoretically, a covariance between TWB Health and TR Emotional could be supported because of a possible relationship between physical health and emotional resilience. That is, if one's physical health is poor, then perhaps the emotional dimension of teacher resilience (positive emotions, sense of balance, staying calm) might be negatively impacted.

Figure 12

Model 3

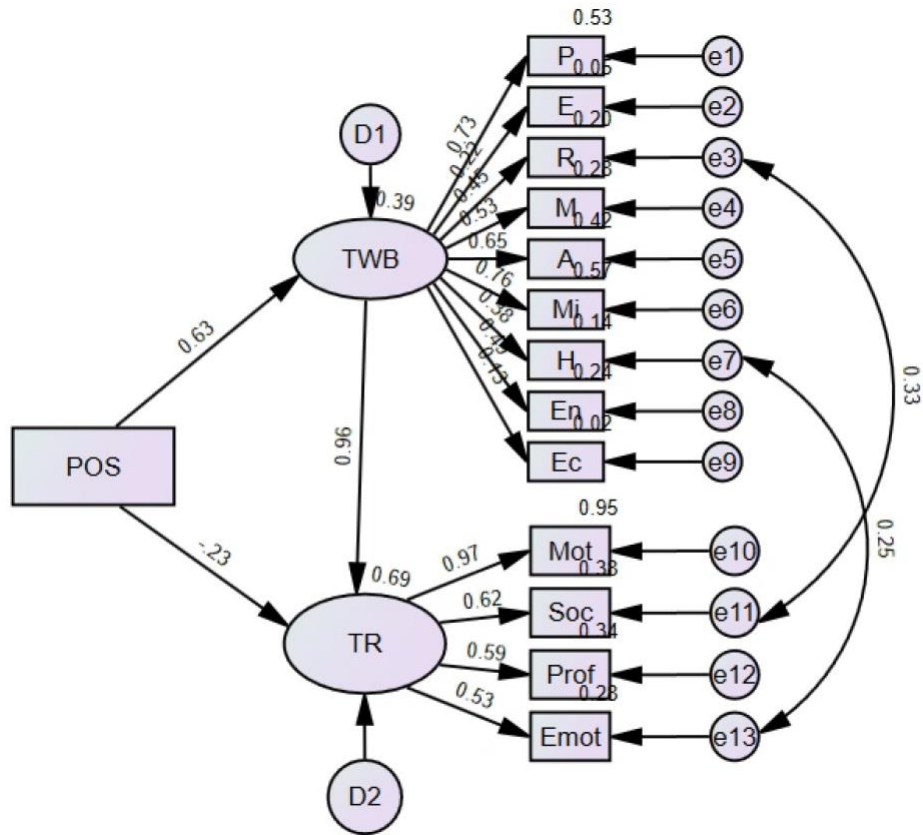


Figure 12. Model 3. POS = composite score for perceived organizational support; TWB = teacher well-being; TR = teacher resilience; P = positive affect; E = engagement; R = relationships; M = meaning; A = accomplishment; Mi = mindset, H = health; En = environment, Ec = economic security; Mot = motivation, Soc =social; Prof = professional; Emot = emotional. Error terms: e1= teacher well-being (TWB) Positive Affect, e2 = TWB Engagement, e3 = TWB Relationships, e4 = TWB Meaning, e5 = TWB Accomplishment, e6 = TWB Mindset, e7 = TWB Health, e8 = TWB Environment, e9 = TWB Economic Security, e10 = teacher resilience (TR) Motivation, e11 = TR Social, e12 = TR Professional, e13 = TR Emotional, D1 = disturbance (or error term) for TWB; D2 = disturbance (or error term) for TR.

Model 3 was recursive, had 105 data points, 32 parameters to be estimated, and a resulting 73 degrees of freedom. Similar to the first respecification, obtained values slightly improved based on the same fit indices used for the initial model, but Model 3 was deemed an unacceptable fit (Table 14).

Table 15

Model 3 Summary of Cutoff Criteria for Fit Statistics Used to Estimate Model Fit

Fit Statistic	Obtained values	Cutoff criterion for fit
p of χ^2	.000	> .05 (Kline, 2016)
χ^2 (CMIN)	229.309	$\geq df$
df	73	> 0
CMIN/ df	3.141	< 3.0 (Kline, 2016)
GFI	.880	$\geq .95$ (Tabachnik & Fidell, 2013)
AGFI	.828	$\geq .90$ (Tabachnik & Fidell, 2013)
RMSEA	.092	$\leq .10$ (Kline, 2016)
PCLOSE	.000	> .50 (Byrne, 2013)
CFI	.862	> .95 (Kline, 2016)
NFI	.813	> .95 (Tabachnik & Fidell, 2013)
SRMR	.0685	$\leq .08$ (Tabachnik & Fidell, 2013)

Note. $n = 254$ secondary school teachers (grades 6-12). p of χ^2 = probability value of model chi-square test statistic; CMIN/ df = minimum discrepancy divided by degrees of freedom; GFI = Goodness-of Fit Index; AGFI = Adjusted Goodness-of Fit Index; RMSEA = root mean square error of approximation; PCLOSE = p-value for the RMSEA test of close fit; CFI = Comparative Fit Index; NFI = Normed Fit Index; SRMR = standardized root mean square residual.

Next, a subsequent respecification was pursued. Again, standardized residual covariances, MI, and EPC values were inspected and underlying theory was considered. Besides POS and TWB Accomplishment (-3.049), the largest standardized residual covariances were among TWB Economic and TWB Health (3.063) and TWB

Engagement and TR Emotional (-2.781). Also, the results indicated that adding covariances between the error terms of TWB Economic and TWB Health (Figure XX) would contribute to overall model fit by decreasing the model χ^2 value by at least 10.86 and between the error terms of TWB Engagement and TR Emotional by decreasing the model χ^2 value by at least 12.746 (Figure 13). In terms of theory and measurement, these covariances could also be justified. Items concerning health assessed if teachers felt in control of their own health and felt able to overcome physical distress while items about economic security assessed a comfortable level of income including the ability to withstand health emergencies. Likewise, for the covariance between engagement and emotional teacher resilience, the negative standardized residual covariance may have indicated that if teachers are not highly engaged in their work, then their positive emotions associated with teacher resilience might decline.

Figure 13

Model 4

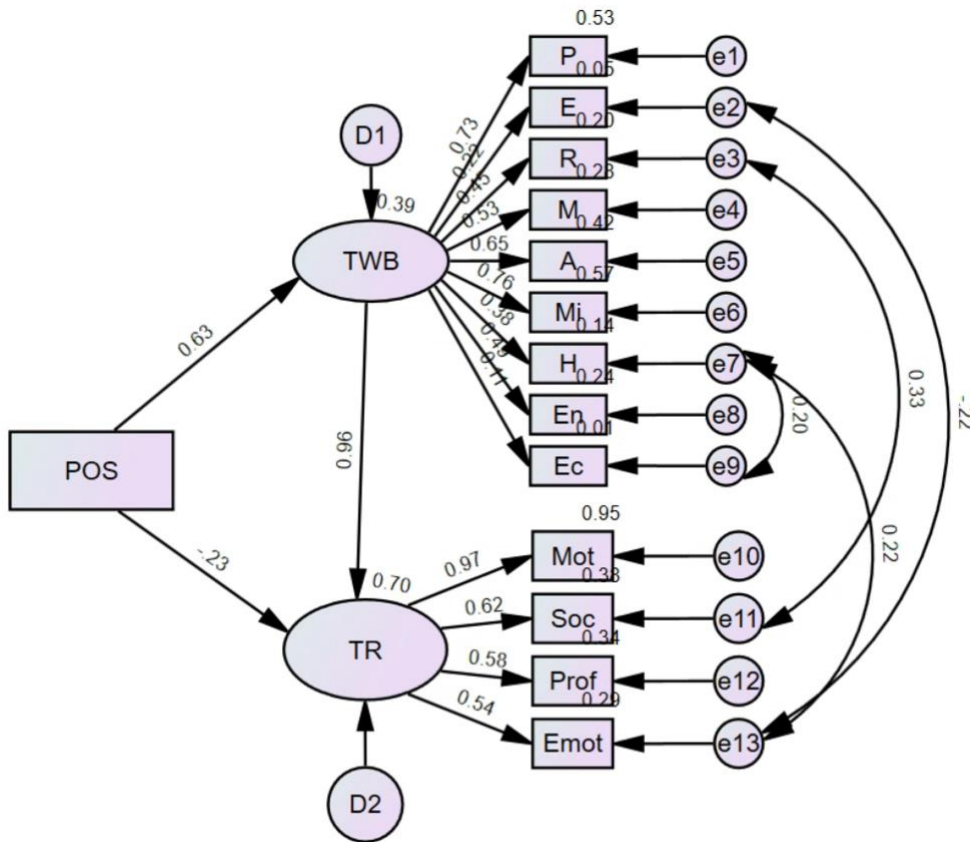


Figure 13. Model 4. POS = composite score for perceived organizational support; TWB = teacher well-being; TR = teacher resilience; P = positive affect; E = engagement; R = relationships; M = meaning; A = accomplishment; Mi = mindset, H = health; En = environment, Ec = economic security; Mot = motivation, Soc =social; Prof = professional; Emot = emotional. Error terms: e1= teacher well-being (TWB) Positive Affect, e2 = TWB Engagement, e3 = TWB Relationships, e4 = TWB Meaning, e5 = TWB Accomplishment, e6 = TWB Mindset, e7 = TWB Health, e8 = TWB Environment, e9 = TWB Economic Security, e10 = teacher resilience (TR) Motivation, e11 = TR Social, e12 = TR Professional, e13 = TR Emotional, D1 = disturbance (or error term) for TWB; D2 = disturbance (or error term) for TR.

Model 4 was recursive, had 105 data points, 34 parameters to be estimated, and a resulting 71 degrees of freedom. Like the first two attempts to respecify the model, obtained values slightly improved based on the same fit indices used for the initial model, but Model 4 was deemed an unacceptable fit (Table 15).

Table 16

Model 4 Summary of Cutoff Criteria for Fit Statistics Used to Estimate Model Fit

Fit Statistic	Obtained values	Cutoff criterion for fit
p of χ^2	.000	> .05 (Kline, 2016)
χ^2 (CMIN)	205.353	$\geq df$
df	71	> 0
CMIN/ df	2.892	< 3.0 (Kline, 2016)
GFI	.893	$\geq .95$ (Tabachnik & Fidell, 2013)
AGFI	.842	$\geq .90$ (Tabachnik & Fidell, 2013)
RMSEA	.086	$\leq .10$ (Kline, 2016)
PCLOSE	.000	> .50 (Byrne, 2013)
CFI	.882	> .95 (Kline, 2016)
NFI	.832	> .95 (Tabachnik & Fidell, 2013)
SRMR	.0635	$\leq .08$ (Tabachnik & Fidell, 2013)

Note. $n = 254$ secondary school teachers (grades 6-12). p of χ^2 = probability value of model chi-square test statistic; CMIN/ df = minimum discrepancy divided by degrees of freedom; GFI = Goodness-of Fit Index; AGFI = Adjusted Goodness-of Fit Index; RMSEA = root mean square error of approximation; PCLOSE = p-value for the RMSEA test of close fit; CFI = Comparative Fit Index; NFI = Normed Fit Index; SRMR = standardized root mean square residual.

One final respecification was pursued to attempt to address the possible misspecification between the variables of POS and TWB Accomplishment. For each of the previous respecifications of the model, the standardized residual covariances, MI, and EPC values indicated a possible negative covariance between POS and the error term of

TWB Accomplishment. For the previous respecifications, this relationship was not addressed because it was not substantially supported by theory. According to the PERMA model of well-being, accomplishment is a dimension of well-being and represents seeking a sense of mastery, competence, or success for its own sake (Seligman, 2011). Nonetheless, Seligman (2011) posited that people pursue a sense of accomplishment separate from other elements of well-being, thus perhaps accomplishment may stand out from other dimensions in the construct of TWB. Also, one of the survey items for POS specifically asked about accomplishment, “The organization takes pride in my accomplishments at work”. Thus, perhaps this overlap in measurement contributed to the misspecification of the model. In Model 4, standardized residual covariances, the only standardized residual covariances deemed problematic (> 2.58) was among POS and the error term for TWB Accomplishment (3.063). Although results also indicated that adding a covariance between POS and the error term of TWB Accomplishment (MI = 20.786, EPC = -.158), covariances cannot be added between an exogenous variable and an endogenous variable. As such, based upon empirical results, theory, and measurement, it was decided to respecify by removing the TWB Accomplishment indicator variable from TWB altogether (Figure 14).

Figure 14

Model 5

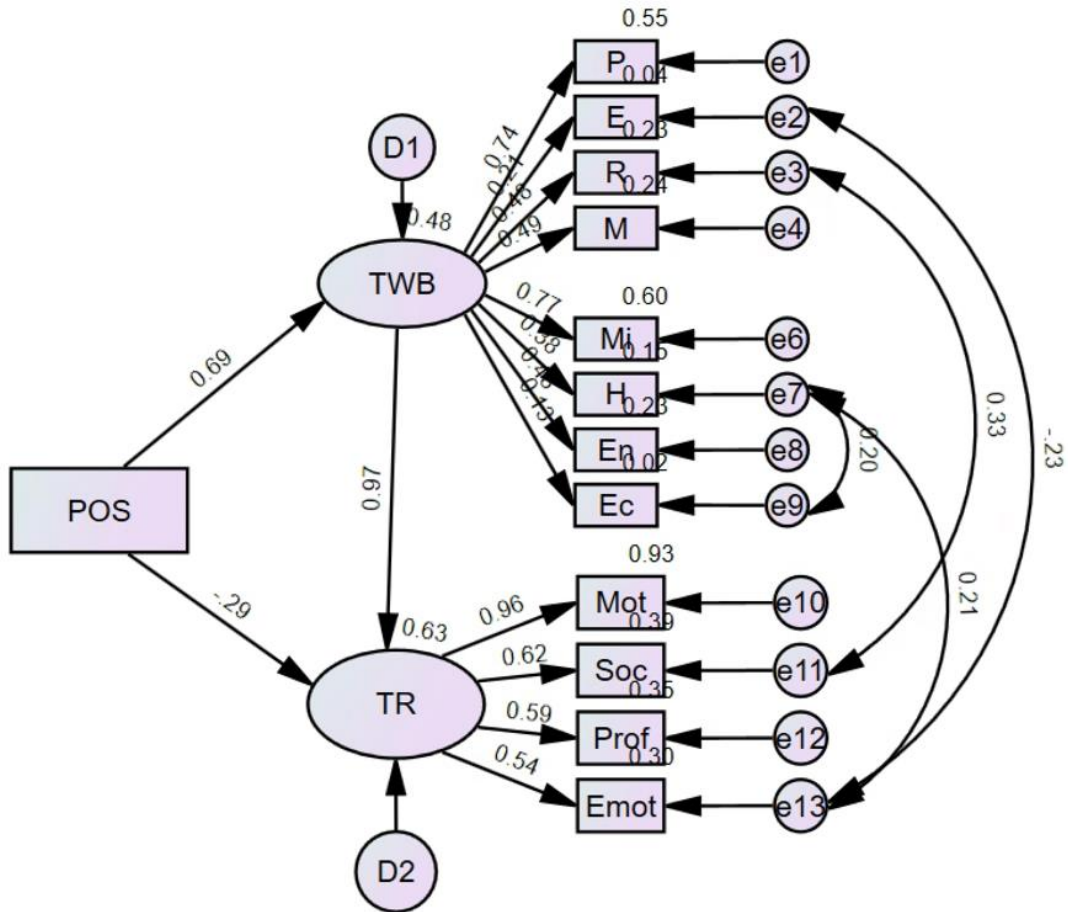


Figure 14. Model 5. POS = composite score for perceived organizational support; TWB = teacher well-being; TR = teacher resilience; P = positive affect; E = engagement; R = relationships; M = meaning; Mi = mindset, H = health; En = environment, Ec = economic security; Mot = motivation, Soc =social; Prof = professional; Emot = emotional. Error terms: e1= teacher well-being (TWB) Positive Affect, e2 = TWB Engagement, e3 = TWB Relationships, e4 = TWB Meaning, e6 = TWB Mindset, e7 = TWB Health, e8 = TWB Environment, e9 = TWB Economic Security, e10 = teacher resilience (TR) Motivation, e11 = TR Social, e12 = TR Professional, e13 = TR Emotional, D1 = disturbance (or error term) for TWB; D2 = disturbance (or error term) for TR.

Model 5 was recursive, had 91 data points, 32 parameters to be estimated, and a resulting 59 degrees of freedom. Again, the obtained values slightly improved based on the fit indices used for the initial model, but Model 5 was deemed an unacceptable fit (Table 17).

Table 17

Model 5 Summary of Cutoff Criteria for Fit Statistics Used to Estimate Model Fit

Fit Statistic	Obtained values	Cutoff criterion for fit
p of χ^2	.000	> .05 (Kline, 2016)
χ^2 (CMIN)	131.918	$\geq df$
df	59	> 0
CMIN/ df	2.236	< 3.0 (Kline, 2016)
GFI	.927	$\geq .95$ (Tabachnik & Fidell, 2013)
AGFI	.888	$\geq .90$ (Tabachnik & Fidell, 2013)
RMSEA	.070	$\leq .10$ (Kline, 2016)
PCLOSE	.022	> .50 (Byrne, 2013)
CFI	.924	> .95 (Kline, 2016)
NFI	.873	> .95 (Tabachnik & Fidell, 2013)
SRMR	.0573	$\leq .08$ (Tabachnik & Fidell, 2013)

Note. $n = 254$ secondary school teachers (grades 6-12). p of χ^2 = probability value of model chi-square test statistic; CMIN/ df = minimum discrepancy divided by degrees of freedom; GFI = Goodness-of Fit Index; AGFI = Adjusted Goodness-of Fit Index; RMSEA = root mean square error of approximation; PCLOSE = p-value for the RMSEA test of close fit; CFI = Comparative Fit Index; NFI = Normed Fit Index; SRMR = standardized root mean square residual.

A summary of model fit statistics for Models 1 through 5 is shown in Table 18. Model respecification was not further pursued because the modification indices for Model 5 could not be substantially supported by theory. However, the largest MI and EPC values indicated that model fit could be improved by adding a covariance between

the error terms of TWB Mindset and TR Professional (MI = 10.592, EPC = -.059), and the error term of TWB Meaning and the disturbance term for TR (MI = 13.741, EPC = .044). Thus, although none of the models were retained, it was noted that TWB Accomplishment and TWB Mindset were dimensions to further investigate in the second phase of the study since these two dimensions potentially contributed to the misfit of the model.

Table 18*Models 1-5 Summary of Cutoff Criteria for Fit Statistics Used to Estimate Model Fit*

Fit Statistic	Obtained values for models					Cutoff ^a criterion for fit
	1	2	3	4	5	
p of χ^2	.000	.000	.000	.000	.000	> .05
χ^2 (CMIN)	271.054	244.667	229.309	205.353	131.918	$\geq df$
df	75	74	73	71	59	> 0
CMIN/ df	3.614	3.306	3.141	2.892	2.236	< 3.0
GFI	.859	.871	.880	.893	.927	$\geq .95$
AGFI	.803	.817	.828	.842	.888	$\geq .90$
RMSEA	.102	.095	.092	.086	.070	$\leq .10$
PCLOSE	.000	.000	.000	.000	.022	> .50
CFI	.827	.850	.862	.882	.924	> .95
NFI	.779	.800	.813	.832	.873	> .95
SRMR	.0732	.0714	.0685	.0635	.0573	$\leq .08$

Note. $n = 254$ secondary school teachers (grades 6-12). ^a p of χ^2 = probability value of model chi-square test statistic (Kline, 2016); CMIN/ df = minimum discrepancy divided by degrees of freedom (Kline, 2016); GFI = Goodness-of Fit Index (Tabachnik & Fidell, 2013); AGFI = Adjusted Goodness-of Fit Index (Tabachnik & Fidell, 2013); RMSEA = root mean square error of approximation (Kline, 2016); PCLOSE = p-value for the RMSEA test of close fit (Byrne, 2013); CFI = Comparative Fit Index (Kline, 2016); NFI = Normed Fit Index (Tabachnik & Fidell, 2013); SRMR = standardized root mean square residual (Tabachnik & Fidell, 2013).

Although no models were retained, research questions 1B and 1C will be addressed in the next sections to provide a complete report of the findings. Results of Model 5 will be used to answer 1B and 1C since this model showed results closest to the acceptable levels for the model fit indices. However, these results regarding variance and

effects were not used to draw final conclusions in Chapter 5 because, overall, the data did not support the hypothesized model.

Research Question 1B

The goal of research question 1B was to determine how much of the variance in teacher resilience, both latent and observed, was accounted for by POS and TWB:

RQ 1B: How much of the variance in teacher resilience, both latent and observed, is accounted for by POS and teacher well-being? Of POS and teacher well-being, which variable accounts for the most variance in teacher resilience?

A secondary goal of research question 1B was to determine which variable, of POS and TWB, accounted for the most variance in teacher resilience. As reported by the ML estimation process in Amos 28.0, the amount of variance explained was determined by using the squared multiple correlations (R^2), or explained variance, for the endogenous latent variables, TWB and TR, and their associated indicators (Table 19). Based on the R^2 values, 47.9% of the variance in TWB was explained by POS while 62.7% of the variance in TR was explained by TWB. Of the TWB indicators, TWB explained the most variance in TWB Mindset (59.7%), TWB Positive affect (54.8%), and then TWB Meaning (24.3%). Of the TR indicators, TR explained 93% of the variance in TR Motivation, 38.8% of the variance in TR Social, 34.7% of the variance in TR Professional, and 29.6% of the variance in TR Social (Table 19).

Table 19*Summary of the Squared Multiple Correlations for Endogenous Variables in Model 5*

Variable	R ²
Teacher_Well_Being	0.479
TWB_PositiveAffect	0.548
TWB_Engagement	0.043
TWB_Relationships	0.226
TWB_Meaning	0.243
TWB_Mindset	0.597
TWB_Health	0.146
TWB_Environment	0.228
TWB_Economic	0.017
Teacher_Resilience	0.627
TR_Mot	0.93
TR_Soc	0.388
TR_Prof	0.347
TR_Emot	0.296

Note. $n = 254$ secondary school teachers (grades 6-12). R^2 = multiple squared correlation;

TWB = teacher well-being; TR = teacher resilience.

Research Question 1C

The goal of research question 1C was to examine the structure of the relationship among the variables by analyzing the direct effects, indirect effects, and total effects:

RQ 1C: What are the direct effects, indirect effects, and total effects among the variables, POS, teacher well-being, and teacher resilience included in the hypothesized structural model? Within the model, what is the relevant importance of various paths? Is the relationship between Perceived Organizational Support and teacher resilience mediated by teacher well-being?

An additional goal of research question 1C was to determine if the relationship between POS and TR was mediated by TWB. The results of the ML estimation on Amos 28.0 were used to examine standardized effect sizes for direct, total, and indirect effects (Table 17). The standardized direct effect of POS on TWB was $\beta = .692$. The standardized direct effect of POS on TR was $\beta = -.293$. The standardized direct effect of TWB on TR was $\beta = .966$. The standardized indirect effect of POS on TR was $\beta = .668$ for a standardized total effect of $\beta = .376$.

Table 20

Summary of Standardized Direct, Indirect, and Total Effects of Predictor Variables on Endogenous Variables for Model 5

Endogenous variable	Predictor variable	DE	IE	TE
TWB	POS	0.692	--	0.692
TR	POS	-0.293	0.668	0.376
TR	TWB	0.966	--	0.966

Note. $n = 254$ secondary school teachers (grades 6-12). R^2 = multiple squared correlation; TWB = teacher well-being; TR = teacher resilience; DE = direct effects; IE = indirect effects; TE = total effects.

Upon completion of the SEM analysis, the data collection shifted to phase two for qualitative data collection and analysis.

Qualitative Results

Phase two of the study aimed to answer research questions two and three and to further explain the quantitative results from phase one using a phenomenological qualitative method. Also, results from phase one were used to develop the interview protocol for qualitative data collection. Findings from phase two were used to answer

research questions two and three to describe teachers' experiences with school support and how it contributes to their well-being and resilience as teachers:

- RQ2: How do teachers describe their experiences with organizational support and how does it contribute to teacher resilience in the school context?
- RQ3: What do teachers experience in their school contexts that contribute to their own well-being and resilience as a teacher?

Description of the Sample and Setting

In the phase one survey, participants were asked if they would be willing to participate in a follow-up interview regarding their experiences with school support, teacher well-being, and teacher resilience. Out of the 260 valid respondents, 102 teachers (39.2%) volunteered for a follow-up interview. Of these volunteers, one was removed because they were identified as a former colleague and, thus, I chose to exclude this person to limit personal bias.

Using the survey results, I calculated a sum score for Multidimensional Teacher Resilience Scale (Mansfield & Wosnitza, 2015) items which included 26 items (questions 41- 66) using a 6-point Likert scale (1=strongly disagree, 6 = strongly agree). Next, to make a distinction between teachers with low resilience and high resilience for interviews, I used Microsoft Excel to calculate descriptive statistics and quartile ranges for Teacher Resilience sum scores (Table 21).

Table 21*Teacher Resilience Sum Score Descriptive Statistics*

Mean	126.29
Standard Error	1.24
Median	127.00
Mode	121.00
Standard Deviation	12.51
Sample Variance	156.49
Kurtosis	-0.13
Skewness	-0.01
Range	63.00
Minimum	93.00
Maximum	156.00
Sum	12755.00
Count	101.00
Quartile 1	93-115
Quartile 2	116-126
Quartile 3	127-137
Quartile 4	138-156

Purposeful criterion sampling, also referred to as nested sampling in mixed methods research (Decuir-Gunby & Schutz, 2017), was used to select interview participants with high and low levels of teacher resilience for comparison (Creswell & Poth, 2018). The lowest quartile contained 18 participants with a teacher resilience sum score range (TRSS) of 93-115, while the highest quartile contained 18 participants with a TRSS range of 138-156. For both the low teacher resilience (LTR) and high teacher resilience (HTR) groups, 10 of the 18 teachers responded to email requests for interviews. Of the participants who responded to email requests for interviews, a deliberate effort was made to select participants with varied demographic characteristics,

years of experience, and types of schools for the final interviews (Table 22). Notably, only white participants and primarily females responded to final interview requests despite additional recruitment efforts made.

Table 22

Characteristics of Final Interview Participants

Interview Number	Pseudonym	Teacher Resilience Level	Teacher Resilience Sum Score	Type of School	Years of Experience	Race	Gender
10	"Maggie"	LOW	103	Suburban	16-23	White	Female
6	"Anna"	LOW	110	Suburban	24-30	White	Female
2	"Bob"	LOW	110	Urban	0-7	White	Male
11	"Kay"	LOW	114	Suburban	8-15	White	Female
3	"Monica"	LOW	115	Suburban	16-23	White	Female
4	"Tammy"	HIGH	138	Suburban	8-15	White	Female
7	"Lola"	HIGH	138	Urban	31+	White	Female
1	"Peggy"	HIGH	138	Rural	0-7	White	Female
8	"Andrea"	HIGH	143	Urban	16-23	White	Female
9	"Jennifer"	HIGH	154	Suburban	16-23	White	Female

Description of Each Interview Participant

Interviews were conducted from December 3-15, 2022 using Webex and recorded with participant consent for transcription purposes. Interviews lasted between 35 minutes to 63 minutes. Ten total interviews were conducted, five with low-resilience teachers and five with high-resilience teachers. One additional interview was conducted as a practice interview and the data were not included in the final analysis.

Maggie. “Maggie”, an English Language Learner (ELL) teacher with low resilience (TRSS = 103), had 16-23 years of teaching experience and taught at a suburban middle school. She described feeling not supported by her school and attributed this lack of support primarily to the following: not being valued for her expertise, lack of adequate curricular resources for students, and that her principal was out of touch with the needs of teachers and students. She reported minimal colleague support and noted a sense of

disconnect with most other teachers mainly due to an age gap between her and younger teachers. She attributed her resilience to her own experiences as a struggling middle school student, feeling inspired by her children, and a desire to help her students succeed especially in her capacity as an ELL teacher, but noted that public politics threaten her sense of well-being and resilience as a teacher. In terms of feeling accomplished as a teacher, she prioritized seeing students thrive, other teachers seeking her input, and praise for her own work.

Anna. “Anna”, a high school English teacher with low resilience (TRSS = 110), had 24-30 years of experience and taught at a suburban high school. She reported not feeling well supported at her current school based on the following reasons: not feeling valued for her expertise and input, not acknowledged or recognized from school leaders and peers for her teaching abilities, low staff morale, and an overall sense of disconnect between teachers and school leaders. She attributed her resilience to colleague support, relationships with her family, physical and mental health, and focusing on the success of students and her school district community. In terms of accomplishment, she reported feeling confident in her own teaching abilities but reported a desire to receive praise from school leaders, peers, and students because she was not receiving the validation she craved.

Bob. “Bob”, a high school English teacher with low resilience (TRSS = 110), had 0-7 years of teaching experience and taught at an urban high school. He described feeling supported by school leaders based on their regular visibility in the building and reported positive relationships with colleagues which gave him a sense of camaraderie and connection. He attributed his resilience and well-being as a teacher to his ability to

compartmentalize negative events at school, setting boundaries, faith, establishing classroom routines, and a challenging job assignment at the beginning of his teaching career. He reported the following sources of threats to his sense of teacher well-being and resilience: state mandated policies and regulations, an overwhelming number of tasks to juggle as a teacher, high staff turnover, and public pressure. In terms of accomplishment, he reported valuing the “little things” with students on a daily basis and receiving genuine praise from school leaders.

Kay. “Kay”, a high school Social Studies teacher with low resilience (TRSS = 114), had 8-15 years of teaching experience and taught at a suburban/rural high school. She described feeling not well supported at her school chiefly because school leaders were not making the time to check in regularly and not noticing her efforts as a teacher. She attributed her own sense of well-being and resilience to seeking her own mental health care, having positive relationships with her colleagues, and developing engaging instruction for students. Although she conveyed a positive sense of instructional freedom, she also reported a lack of adequate physical resources, especially technology and classroom supplies, to support the instructional needs of students. In terms of challenges, she also described outside family stress, a notable decline in student and teacher mental health, and negative shifts in student behavior following the COVID-19 pandemic. She described feeling accomplished as a teacher when she witnesses student growth and receives praise and positive feedback from students, peers, parents, and school leaders. However, she conveyed that she would like to receive more public acknowledgement for her work as a teacher.

Monica. “Monica”, a high school Family Consumer Science teacher with low resilience (TRSS = 115), had 16-23 years of teaching experience and taught at a suburban high school. She reported not feeling supported at school based on the following reasons: school leaders were not visible on a regular basis, teachers received “empty affirmations” for their work, teachers were not provided time for collaboration, and she was not given opportunities to be valued for her expertise. Additionally, she described negative changes in student behavior since the COVID-19 pandemic and exhaustion from the job of teaching as threats to her well-being and resilience as a teacher. She attributed her well-being and resilience as a teacher to support from her husband, recharging outside of school, financial compensation for extra time worked, time management, and possessing a growth mindset. In terms of accomplishment, she reported valuing being seen as an expert by her peers, and witnessing students learn and gain real-life skills.

Tammy. “Tammy”, a Career Technology Science teacher with high resilience, had 8-15 years of experience and taught at a suburban high school. She described feeling supported at school in the following ways: teamwork with colleagues (especially the science department), recent renovation to her classroom lab space, being valued for her expertise by colleagues and school leaders, feeling validated from receiving a teaching award, and having instructional freedom. However, she noted that many teachers in her school have expressed that staff morale is low due to lack of disciplinary support from school leaders and because school leaders are unresponsive to teachers' concerns. Additionally, she described feeling that her current principal is not genuinely interested in her teaching and only stops by her classroom when obligated. She reported not having enough time to collaborate with colleagues, a lack of transparency from school leaders at

times, and that teachers are sometimes not treated as professionals at her school. She attributed her well-being and resilience to previous professional experiences, the desire to develop engaging instruction, a willingness to focus on and speak up for the needs of students, the ability to compartmentalize, physical exercise, family support, In terms of feeling accomplished as a teacher, she valued student growth and feedback, feedback on student performance from industry partners, and recognition from peers and school leaders.

Lola. “Lola”, a Special Education teacher with high resilience (TRSS = 138), had 31 plus years of experience and taught at an urban middle school. She described feeling well-supported by her school primarily for the following reasons: a sense of teamwork amongst staff, positive colleague relationships, regular presence of school leaders, and that her principal instills a strong positive mission for the school. However, she did note a lack of adequate numbers of support staff to support teacher workload and meet the needs of students and, especially students with behavior problems or special needs. She attributed her well-being and resilience as a teacher to the positive mission and teamwork in the school, physical exercise, prayer, the ability to set boundaries and compartmentalize, and focusing on the long-term success of student of students. In terms of feeling accomplished as a teacher, she reported valuing the success of students (large and small) and recognition from others including receiving a teacher of the year award.

Peggy. “Peggy”, a Special Education teacher with high resilience (TRSS = 138), had 0-7 years of experience and taught at a rural middle school. She described feeling supported at school based upon presence of school leaders in her classroom on a regular basis, school leaders who were generally responsive to her needs and requests, and

colleagues who expressed a willingness to support her. However, she reported a lack of adequate curricular resources provided by the school, lack of adequate planning and work time, and a strong sense of being overwhelmed from juggling all the daily responsibilities of being a teacher. She attributed her resilience and well-being as a teacher to the regular presence and genuine interest from her principal, previous negative experiences which motivate her to do a good job for her students, setting boundaries for not working outside of school hours. Additionally, she conveyed that she was very student-focused by striving to develop engaging instruction, believing in her students, working with parents, and using effective classroom management strategies. In terms of accomplishment, she valued seeing student success and parents and school leaders acknowledging her hard work and the success of her students.

Andrea. “Andrea”, a high school Math teacher with high resilience (TRSS = 143), had 16-23 years of experience and taught at an urban high school. She described feeling supported at school because of positive colleague relationships, disciplinary support from school leaders, feeling personally valued and respected by school leaders, and having adequate support staff to meet student needs especially in terms of staff proximity and presence. She reported not feeling supported in the past when school leaders were threatening or did not value her as a person. She attributed her resilience and well-being as a teacher to having strong school support (mainly from colleagues and school leaders), family and friends who understand her role as a teacher, using good classroom management strategies, maintaining a balance between work and home life, and showing enthusiasm for her teaching and student learning. In terms of accomplishment, she valued seeing students learn and grow, witnessing student

excitement for learning, and receiving feedback from students that made her feel like a “good teacher”.

Jennifer. “Jennifer”, a Special Education teacher with high resilience (TRSS = 154), had 16-23 years of experience and taught at a suburban middle school. She described feeling supported at her school based upon the following: a strong sense of teamwork at her school, strong colleague support especially from her Special Education department (validation, acceptance, problem-solving), the main principal was connected to staff and instilled a strong positive mission, school leaders valued teachers as professionals, parents trusted her as a professional, and she had a reasonable caseload of students thereby giving her adequate time to fulfill her job responsibilities. She noted some threats to her resilience and well-being as a teacher such as one assistant principal who did not trust the mission of the school team, increase in mental health challenges in students stemming from the COVID-19 pandemic, and stress from dealing with her aging parents. She attributed her resilience and well-being as a teacher to support from colleagues and school leaders, her husband, and making time to “escape” and regularly decompress outside of school. Additionally, she portrayed herself as being very student-focused and having a positive and flexible approach to working with parents and colleagues. In terms of accomplishment, she valued seeing students gain confidence and coping skills, working with her team to help students (including parents), and her own ability to support colleagues and families.

Themes

Three major themes emerged from the interview data: support, threats, and protective factors (Table 23).

Table 23

Major Themes and Frequencies

Major Theme	Definition	No. of Files with Theme	Total References to Theme
Support	The extent to which teachers perceive they are valued by their school for their contributions and supported in terms of their well-being.	10	161
Protective Factors	Factors that help teachers overcome the challenges of the profession, thrive, be engaged, and feel satisfied with the profession. Includes personal and contextual protective factors.	10	229
Threats	Issues that threaten or take away from school support, teacher well-being, and/or teacher resilience.	10	265

For each of these major themes, corresponding themes and sub-themes also emerged. Although there is overlap among findings for research questions two and three, the theme of support will be reported with findings summarized for research question two and the themes of protective factors and threats will be reported with findings summarized for research question three. As a source of comparison and to facilitate the processes of structural synthesis and imaginative variation (Moustakas, 1994), crosstab matrices were generated to compare the responses of high resilience versus low resilience teachers for the major themes, associated themes, and sub-themes. To start, patterns were noted in the frequency of coded segments for the low and high resilience groups across

the major themes: support (HTR = 106, LTR = 38), protective factors (HTR = 119, LTR = 75), and threats (HTR = 73, LTR = 167) (Table 24). Thus, the HTR teachers reported experiences with support and protective factors more frequently than LTR teachers, while LTR teachers more frequently reported experiences with threats.

Table 24

Coding References for Major Themes in High vs. Low Resilience Teachers

Codes	High Teacher Resilience (n = 5)	Low Teacher Resilience (n = 5)	Total (n = 10)
Support	106	38	144
Protective Factors	119	75	194
Threats	73	167	240
Total	298	280	578

Note: The Nvivo 12.0 Matrix Coding Query reports on the overlapping of coding and not the total number of coding references at a source.

Research Question Two

Through research question two, I aimed to more deeply understand how teachers describe their experiences with organizational support within schools and how that support contributes to teacher resilience in the school context. Interview data were used to answer this question.

Support. Based upon responses to the questions, “Can you describe what makes you feel supported in your school?” and, “Can you tell me about how support in your school helps you manage the challenges of being a teacher?”, and “Describe how your resilience as a teacher would change depending on the level of support at your school”, five themes emerged for support: colleagues, recognition, resources, supportive leaders,

and treated as a professional (Table 25). The theme of colleagues had three sub-themes: adequate staff, colleague support, teamwork. Resources held two sub-themes: physical space, and time. The theme of supportive leaders contained four sub-themes: disciplinary support, positive mission of leader, presence of school leaders, and responsive to needs (Table 25). Altogether, these themes were used to code a total of 161 references in the transcripts under the major theme of support. Colleagues were the most frequently cited source of support (38%), followed by supportive leaders (28%), then treated as a professional (15%). In general, teachers described their experiences with feeling supported as the extent to which they perceived they were valued by their school for their contributions and supported in terms of their well-being.

Table 25*Support Themes and Sub-themes*

Themes	Sub-themes	References		Respondents	
		#	%	# High TR	# Low TR
		144		106 (74%)	38 (26%)
Colleagues		55	38%	45(82%)	10 (18%)
	Adequate staff	6	4%	6 (100%)	0
	Colleague support	27	19%	18 (67%)	9 (33%)
	Teamwork	26	18%	25 (96%)	1 (4%)
Recognition		20	14%	16 (80%)	4 (20%)
Resources		15	10%	14 (93%)	1 (7%)
	Physical space	6	4%	6 (100%)	0
	Time	9	6%	8 (89%)	1 (11%)
Supportive leaders		41	28%	23 (56%)	18 (44%)
	Disciplinary support	13	9%	6 (46%)	7 (54%)
	Positive mission of leader	7	5%	7 (100%)	0
	Presence of school leaders	19	13%	8 (42%)	11 (58%)
	Responsive to needs	6	4%	3 (50%)	3 (50%)
Treated as a Professional		22	15%	14 (64%)	8 (36%)

Note: The Nvivo Crosstab Coding Query reports on the overlapping of coding and not the total number of coding references at a source.

In comparing the high resilience group teachers to the low resilience group for the theme of support, some patterns emerged (Table 25). Overall, HTR teachers cited experiences with school support more than twice as many times (106 references, 74%) than LTR teachers (38 references, 26%). Additionally, the segments coded for the theme of colleagues were predominantly reported from HTR teachers (45 references) compared to LTR teachers (10 references). Likewise, HTR teachers cited more references to themes of recognition (HTR = 16, LTR = 4), resources (HTR = 14, LTR = 1), and treated as a professional (HTR = 14, LTR = 8) compared to LTR teachers.

Colleagues. Participants most frequently cited colleagues as their primary source of support within the school context. All ten participants reported colleagues as a source of support and only one participant described an obvious lack of colleague support. However, the majority of references to colleague support came from HTR teachers (45) compared to LTR teachers (10). One teacher attested, “what I used to overcome the challenges are people”, and another stated, “I think I probably start first with my own colleagues”, while yet another reported, “because your colleagues are the only ones in the trenches with you”. Three sub-themes emerged as fundamental to why teachers value the support of colleagues: adequate staff, colleague support, and teamwork. Significant statements representing each of these sub-themes of the colleague theme are shown in Table 26.

Table 26

Significant Statements Representing the Sub-Themes for Colleagues Theme

Sub-Theme	Significant Statement
Adequate staff	“I think that if we could have some extra staff building aides in classroom, aides, that would be huge...[more] people makes people feel a little bit less stressed about their job.”
Colleague support	“there are a lot of days where without my colleagues or a certain colleague, um, I wouldn't still be a teacher.”
Teamwork	“[Teachers] feel welcome. They feel accepted and they always say the same thing...I just love this team. So that is a huge help.”

Teachers expressed that having adequate numbers of staff, including teachers and support staff helped them support the needs of students and teachers alike and to support school functioning as a whole. One HTR special education teacher, emphasized the need for adequate staff to help support a teacher’s workload, “there's just extra people that can

give you an extra hand on things”. This teacher also commented on ways that extra support staff assisted with the unique student needs of students with behavioral issues:

It takes a lot of extra people to be able to take those kids out and to help them regulate. It takes an extra place. It has to be supervised. To tell them to regulate and [that] you're not going to educate until you regulate. There's a lot of truth to that, and it takes more people to regulate kids, because more of them need to be regulated.

In terms of colleague support, teachers described receiving help and advice from colleagues and enjoying their company through both camaraderie and commiseration. Several teachers reported sheer enjoyment of working with their colleagues such as, “But you're also just having fun. So when we have fun, that's when we do the best work. I think I like that”. Other participants indicated how relationships with their colleagues impacted their own teaching by helping them problem solve, “We give each other advice. We share, commiserate”. Another participant noted how colleagues help them recharge, “You just feel reinvigorated [by colleagues], so it's nice”, and even reported that colleague support positively impacted the school community and students:

When you have the staff that likes each other, um, they play tricks on each other I think that kind of stuff really kids just eat up at junior high. You know, where we had this social studies teacher has bobble heads of all the presidents, and now they have a teacher, go around and steal the bobble heads... He would show up in the science room, or would show up here or there. And the kids love that kind of stuff where they see that their teachers are having fun, that they like each other that

maybe they're doing things together, you know, and they come and they can eat together for a meal, things like that.

Teamwork was cited predominantly by teachers with high resilience (96% of references). They described a positive school climate in their buildings and attributed much of that positive environment to a strong sense of teamwork among the staff, specifically that the staff members were focused on working together as a team to support the needs of students. One teacher reported, “If you have something that you need help with, you bring it to the table then we all come up with different solutions, possible solutions. So, that's huge.” And, another highlighted the importance of a “cohesive staff”:

I have really good support with, um, the principal and assistant principal as well as just the whole administrative staff in the office, because it really, especially with my special needs kids...it does take the entire school to really work with them from your truancy counselors to your school nurses to your secretaries, you know, that greet them when they come in late repeatedly. ...that's just all very important. It just needs to be a cohesive staff...

In particular, two of the HTR teachers placed great emphasis on the essence of teamwork and why it was essential to fulfilling the mission of the school towards supporting students and teachers alike.

Recognition. Teachers described recognition as a source of support when they felt acknowledged by administrators, peers, students, or parents for their hard work and contributions, often in a public way. Recognition included praise (verbal or written) or formal awards. Notably, HTR teachers especially valued recognition in the form of feedback from students, such as, “In the long run, and for me, that's like, that's the biggest

thing when I get that feedback from students.” This teacher went on to describe the value of recognition by saying

His mom and dad said he has gone farther than we ever thought he could. And so, I feel like as a teacher, you know, I mean, I know there's lots of things I do wrong and probably things I could do better, but, you know, that made me feel so good because it's just like, so much potential.

Beyond student recognition, three teachers, two HTR and one LTR, reported feeling supported when they received formal public awards for teaching. Two teachers described a sense of validation when receiving teaching awards. The LTR teacher said, “you don't realize you want an award you don't realize you want something that says excellence next to your name until you get it. ...I just wanted someone to see how hard I work.” A HTR teacher recounted, “I won that award last year, which was...exciting, because I felt like I was really struggling throughout the school year.”

Resources. Teachers described feeling supported when they had ready access to adequate resources to fulfill their job responsibilities including materials, physical space, time, and curriculum. References to resources were also more prevalent with HTR teachers (14) compared to LTR teachers (1). Adequate time was mentioned in relation to time for working with students, such as, “I am not assigned a homeroom period. That is a time where I can pull students” (HTR), as well as time for working with colleagues, “providing teachers with, like, designated times. For...collaboration with your colleagues” (HTR). Adequate physical space was reported by one teacher who described a recent renovation to her classroom space and how that made her feel supported,

For me, personally, I like...[school leaders] being willing to take on the project and spend the money to renovate this classroom. So that the...students have the right kind of space to work in...that was a big deal.

Supportive Leaders. Teachers who characterized support relative to support from their school leaders described four primary sub-themes, leaders who are: visibly present, responsive to the needs of teachers, supportive of disciplinary issues, and instill a positive sense of school mission amongst staff (Table 27). High resilience teachers reported experiences with supportive leaders 23 times while low resilience teachers reported experiences to supportive leaders 18 times.

Table 27

Significant Statements Representing the Sub-Themes for Supportive Leaders Theme

Sub-Theme	Significant Statement
Presence of leader	“We need to see you out and about and doing and caring and showing and seeing. Sometimes we want to show off. Yeah, but we also want that feeling of they see what's going on.”
Disciplinary support	“I know that if I have any issues, I can go to the deans or the principal, the assistant principals. And they would help me with any issues that I had.”
Positive mission of leader	“One of the things he always says is, “This is the best place that kids are all day” for a lot of our kids because we have a lot of low-income kids.
Responsive to needs	“he just always follows up if, if you send them an email about something, you know, you will get an answer.”

Presence of school leaders was the most commonly cited reason that teachers gave when describing experiences with supportive leaders, with a total of 19 references. However, low resilience teachers cited presence of leaders more often (11 references) than high resilience teachers (8 references). Teachers reported feeling supported when they visibly saw their school administrators on a frequent and regular basis including presence in the hallways and stopping by their classrooms for informal visits to witness

their instruction. When school leaders were present in the hallways and classroom on a regular basis, teachers described feeling at ease with student behavior and felt their leaders were interested in what was happening in their classrooms. One teacher attested, “honestly, I think the greatest help that we get as teachers in handling the day-to-day environment is seeing our administration regularly”, in terms of helping regulate student behavior because “you feel validated in enforcing behaviors that you want to see and trying to regulate behaviors that you don't”.

Teachers also reported experiences of feeling supported when their principal made a point to stop by their classrooms to see their teaching on an informal basis and to take an interest in their students. One teacher stated, “just showing that they have an interest in what's going on in the classroom is helpful it reminds me that, like, there's a bigger picture out there.” Furthermore, two teachers with high resilience felt supported by their principal showing genuine interest in their students. One teacher remarked, “he (principal) really tries hard to learn my students' names. That's really important to me.”, while another noted “My kids really do like him, and he tries to make them feel important.”. One high resilience described how the regular presence of her principal was essential to her,

And when they come down, like, our students, just, they love it. You know what I mean? And so I feel like having that support is important for me and my students and so, um, you know, if I wasn't getting that, I feel like, you know, it'd make it a lot more difficult.

The final sub-theme of supportive leaders was responsive to needs. These experiences included when teachers described school leaders listening to their needs and

concerns and responding to those by taking action or implementing change. Overall, they expressed feeling heard and valued when their school leaders would act upon the needs they expressed, including curricular needs, physical space, answers to questions and checking on them frequently. One teacher reported, “And I couldn't have done that without administrators who knew there, were going to be some ugly days” upon receiving help from her school leaders during a challenging family crisis. Another teacher described feeling confident that she would always get a response from her principal when she asked a question or had a problem with something,

I don't even know if he is in a position to deal with that or if these problems are unsolvable, but he just always follows up. If you send him an email about something, you know you will get an answer.

Treated as a Professional. Participants described a desire to be treated as professionals, especially through other people seeking their professional knowledge and expertise. The majority of these statements came from HTR teachers (64%) They felt valued when colleagues and school leaders used their input to guide important decisions in the school. Professionalism also related to perceiving a sense of trust in their expertise from administrators, peers, and parents. Several teachers emphasized how an absence of micromanagement from school leaders led to a sense of empowerment and trust. One HTR teacher explained, “They trust our professionalism, which is huge”. Also, participants stressed the value of instructional freedom and feeling supported to try new and creative teaching methods. One HTR teacher attested, “I've always been really lucky that when I go to administrators with crazy ideas, their first inclination isn't to tell me no. Or tell me how. I think that goes a long way”.

Research Question Three

In research question three, I focused on what teachers experienced in their school contexts that contributed to their own well-being and resilience as a teacher. Although the original scope of my study was on factors within the school context, in order to consider alternative explanations, I also asked teachers about factors outside of school that contributed to or diminished their sense of well-being and resilience as a teacher. Additionally, based on the quantitative results, organizational support was related to accomplishment in an unexpected way, so data were collected in the interview to ask teachers about their sense of accomplishment to determine how those experiences might relate to school organizational support and teacher resilience.

First, based upon responses to the questions, “Tell me what you do when you face challenges at school and what resources you use to overcome those challenges?” and “Can you tell me what things outside of school support help you be resilient as a teacher? Alternatively, can you tell me about things outside of school that may be diminishing your resilience as a teacher?”, two major themes emerged, protective factors and threats. The theme of threats emerged as issues that threaten or take away from school support, teacher well-being, and/or teacher resilience.

Protective Factors. Protective factors included factors that help teachers overcome the challenges of the profession, thrive, be engaged, and feel satisfied with the profession, including personal and contextual protective factors. Protective factors were predominantly mentioned by high resilience teachers (119 references) compared to low resilience teachers (75 references). Seven themes emerged as fundamental to teachers’

protective factors for resilience and well-being: sense of accomplishment, balance, perspective, teaching skills, relationships, previous experiences, and health (Table 28).

Table 28

Protective Factors Themes and Sub-themes

Themes	Sub-themes	References		Respondents	
		#	%	# High TR	# Low TR
Balance		36	19%	16	20
	Compartmentalization	25	13%	12	13
	Time management	14	7%	5	9
Health		7	4%	4	3
Perspective		24	12%	20	4
	Faith	2	1%	1	1
	Growth mindset	16	8%	14	2
Previous Experiences		15	8%	6	9
Relationships		28	14%	15	13
Sense of accomplishment		68	35%	46	22
	Acknowledgment from others	26	13%	17	9
	Student focused	49	25%	34	15
Teaching skills		29	15%	23	6
	Classroom Management	12	6%	9	3
	Engaging instruction	13	7%	11	2
	Student involvement	4	2%	3	1
Total		194		119 (61%)	75 (39%)

Note: The Nvivo Crosstab Coding Query reports on the overlapping of coding and not the total number of coding references at a source.

Patterns emerged for some of the themes of protective factors when comparing high resilience teachers' experiences to the low resilience teachers' experiences (Table 22). High resilience teachers referred more often to applying a sense of positive perspective (high = 20, low = 1), possessing a sense of accomplishment (high = 46, low = 22), and utilizing effective teaching skills (high = 23, low =6). In contrast, low resilience

teachers described experiences with the following themes more frequently, balance (high = 16, low = 20), time management (high = 5, low = 9), and previous experiences (high = 6, low = 9), as compared to high resilience teachers. The theme of relationships was fairly balanced among both high and low resilience teachers (high = 15, low = 13).

Balance. The theme of balance emerged when teachers described a capacity to establish a sense of balance by setting boundaries between work and home life including the ability to effectively manage their time and compartmentalize negative events at school. These experiences demonstrated their ability to take a break, behaviorally, mentally, and emotionally, from the everyday stresses of school. Two sub-themes were central to the theme of balance: compartmentalization and time management.

References to compartmentalization were balanced between both high and low resilience teachers. Compartmentalization represented when teachers described an ability to “let things go” and compartmentalize in order to move forward from negative events or challenging circumstances by setting boundaries and making time to recharge outside of school. One low resilience teacher explained how compartmentalizing helped him manage the challenges of teaching by being able to move past stressful situations with students or during the school day. He explained, “psychologically, . . . compartmentalization is so crucial . . . first year, second year teachers, that's the thing that I wish we could . . . put in their brain is to let the day be, like, let the student be.” He further explained how prioritizing his family helped him compartmentalize,

So knowing when to shut off is such a big thing, knowing when to move on to the next thing the next period, uh, the next step is I think at the core of resilience for

me, and that started with, you know, prioritizing my family a lot. If I come home with the baggage of the [school] day, then the baggage of the [school] day is now home.

Another teacher stated, “that's kind of what keeps me going because I know that they'll get there”, to describe how she moved past irritating student behavior. A high resilience teacher recounted the importance of being realistic with herself about her limitations,

just try to recenter because there's so many needs within a day's time. You cannot possibly meet them all and so you have to just, just kind of say yourself well, you know, I did everything I could do today. ...that's all I can do the best I can do for the day and,...I can't expect any more of myself. So, you just have to draw some...boundaries around it.

Teachers also described an ability to compartmentalize by setting boundaries between school and home life and making time to recharge. One high resilience teacher attested, “Outside of school,...I really try to separate it only because...I don't have the extra time to put towards it [because of] pretty much everything outside of work.” She went on to explain how she established this professional boundary early on, “I'm going to start from the time I've entered education to say that this is my personal time and I'm not taking the work home”. Other teachers reported how life outside of work helped them to recharge and reset so they had more energy in the classroom. One teacher explained, “I need that downtime...and then I go in and I...tackle my classes. You know, that piece is very important to me.”. A high resilience teacher emphasized her need to “escape” outside of school and how this helped her to sustain her resilience as a teacher,

I escape. My escape is, um, I was lucky my family, I grew up with some acreage... My husband's family grew up with some acreage in [rural region]...no running water no electricity, but we go there and just spend the time with our dogs, and we just enjoy ourselves and you just, unhook from everything and just be outside.

Another high resilience teacher recounted her ability to set firm boundaries during particularly stressful times in her career,

I just felt like it [setting boundaries] was more necessary whether it was just junior high, because [they are] such a needy age or because it was just such a demanding job, especially as, you know, they took my aide and then I lost that resource and extra person.

Time management was more of a minor sub-theme than compartmentalization, but some teachers described experiences with effectively managing their time to protect their resilience and well-being by reducing their stress level. One teacher explained, “I get there earlier just so that I can get set up and not feel rushed or hurried.” Another described how she fit in necessary tasks, “I spend [all of] my planning period grading and preparing for the day's lesson, making any copies that I need to.” A high resilience teacher explained how living close to the school helped her time management, “Even if I'm running late, I'm still early, which is fine.”

Health. References to health as a protective factor were also relatively balanced between HTR (4 references) and LTR (3 references). Teachers described the influence of mental health and/or physical (including physical exercise) on their sense of well-being and resilience as teachers. One LTR teacher reported her awareness of health as

protective factor but acknowledged that her health-related behaviors were not motivated by maintaining her well-being or resilience as a teacher,

I mean...it's not directly linked to teaching, but just, you know, I mean... you exercise, get time outside, doing yoga, and meditating and I'm not a regular practitioner of either of those, but I think that just like my own physical and mental health those help, but I don't look at any of that as a direct correlation to my teaching. ...I'm sure [that] the healthier we are in mind and body, but I don't do those things specifically with teaching in mind.

In contrast, two HTR teachers directly acknowledged how engaging in physical exercise was an intentional way to foster their teacher resilience. One HTR teacher described how bicycling helped her, "I really had to up my bicycling to be able to deal with some of the junior high problems", and, "I just need to ride off the day's frustrations, limitations. I needed to refocus I would often...get home in time to do that before I would start dinner". Another teacher explained, "doing things that are physical, I feel like, are very helpful in terms of maintaining...resilience in the classroom and getting through things that are difficult, you know, teaching wise". Additionally, one of these high resilience teachers described how she was more intentional during stressful times at school, "I just had to be a lot more intentional about how I was taking care of myself because it was so stressful."

Perspective. The theme of perspective emerged when teachers described approaching the challenges of the profession with a positive outlook. Seven out of ten participants referred to applying a positive perspective, but HTR teachers referred to perspective 20 times while LTR teachers only 4 referred to perspective four times.

Perspective was categorized into two sub-themes, growth mindset and faith. Teachers statements of growth mindset represented the majority of the statements. When people apply a growth mindset, they believe their abilities can improve with hard work and dedication and see challenging circumstances as opportunities for growth (Dweck, 2008). One HTR teacher expressed, “I think I tend to be a reflective person anyway, or I'm just curious about how do I get better? How can I do this differently? ...this is where my head goes”. Notably, in describing the burden of a teacher’s workload, she said, “I think sometimes teachers feel like there's a lot that gets thrown on their plate that's more than teaching. And depending on the teacher, that's great or it sucks”, and went on to acknowledge that she enjoyed having extra responsibilities as a teacher. A different HTR teacher described how she set boundaries for venting her frustrations,

I kind of equate that to locker room talk....So, in the locker room, you talk positive things or you talk structural like, “Moving forward how do we make it better”? You don't complain, you don't just B*** about something, you know, like, so I kind of equate work to that. And then you might [talk to close colleagues outside of work]...that you two are just venting and it's not going to carry over into your building. ...that's important to kind of find that boundary because that negative attitude just gets toxic. And I just don't think it's a good thing to bring into the workplace.

Other HTR teachers referred to applying a growth mindset towards their relationships with colleagues or students. One HTR teacher explained, “you have to kind of finesse them like, you have to learn to stroke... you know, you have to learn how each person works. So, then you can help them implement what might work for them.” Yet

another HTR teacher described her applying a growth mindset towards her students by considering them like a family,

And, you know, I say we're like a little family here, you know, everybody might drive you crazy at one point or another, but you're important in here, you're loved in here and, you know, we'll just do what we have to do to get through, you know so I think those are big things that make me feel like we're doing something right there.

For the second sub-theme of perspective, faith, teachers described the influence of religious faith and prayer in their overall sense of well-being and resilience as a teacher. Faith was more minor to the theme of perspective because it was mentioned much less frequently than growth mindset. Two teachers, one HTR and one LTR, emphasized the role that applying faith and prayer played in helping them face challenging circumstances at work. One stated, “I don't know if I'm allowed to say this, but the Lord God Almighty” when asked what contributed to his well-being and resilience. Another teacher attested, “I pray a lot. ...that's something...for that guidance, but yeah, I just felt like [prayer] was [helpful] when it became increasingly stressful”. Although these teachers seemed somewhat reluctant to share details of how they used religious faith, they both acknowledged the role it played in bolstering their teacher resilience.

Previous experiences. Participants referred to their previous experiences as a source of resilience as 8% of the theme of protective factors, with six references from HTR and nine references from LTR. They described previous experiences that they drew upon to help them manage the challenges of being a teacher. Sometimes, these experiences were particularly challenging and were used to maintain a positive sense of

perspective when approaching current circumstances that may be challenging. One LTR teacher attributed a great deal of his resilience to, “A really, really hard first job”, and explained how working under challenging circumstances fortified him as a teacher. Another LTR teacher divulged how the death of her own daughter contributed to her resilience, “and I learned through my daughter's passing, the greatest gift I could give my kids that year was to show them that you do have to find a way forward”. A HTR teacher explained how her previous negative experiences as a classroom aide shaped her sense of resilience and motivation as a teacher,

I literally, when I left, I wanted to cry because I thought that was...the most ridiculous horrible way of...handling the situation, and I just thought I would never ever want my child to be treated like that, or...I would never want to be handled like that. And that was probably my biggest ... reference when I...think about how to handle different situations.

Relationships. Participants reported personal relationships 14% of the time for protective factors of resilience by describing positive and supportive relationships with people inside and outside of school. This theme was relatively balanced, with 15 references from HTR and 13 references from LTR. Many teachers cited their spouse/partner and children as significant sources of support. One notable difference was in how participants described how family members seemed to understand or not understand their role as a teacher. One HTR teacher accounted, “having a support, a family who understands, what's going on understands the life of a teacher who's needed by students.”, while a LTR teacher stated,

My husband also doesn't understand why I always put myself in these situations, if it's a hard thing to do, just don't do it. Why don't you just tell the kids to just get it done? And I'm like they're kids...unless your partner's in education, they don't understand all of the factors so they'll listen to you and they'll try to fix it for you, but their fixes aren't usually realistic to your situation.

Both HTR and LTR teachers attributed their resilience in part to relationships with colleagues at school. Examples included:

“talking to my teacher friends” (HTR)

“I have um, really good friends that I work with” (LTR)

“I think having...a positive and strong relationship with your peers” (HTR)

“the number one thing to get through a day is the people around you” (LTR)

To explain the “why” and “how” relationships as protective factors, teachers cited feeling a sense of camaraderie and connectedness:

“because we feel comfortable enough doing that. That's good stuff [feeling connected to colleagues]...I guess you could liken it a little bit to a family” (LTR)

“all the teachers that come into our department...they feel welcome. They feel accepted” (HTR)

“Whether they're in Ohio, or if they're across the country or the world, that's helpful in terms... of with resiliency and knowing that it's not just me” (HTR)

“to talk and commiserate with my coworkers and laugh about it and just kind of share some of our same struggles” (LTR)

Accomplishment. References to accomplishment accounted for 35% of the theme of protective factors. When asked “Tell me what experiences make you feel

accomplished as a teacher?”, and “What, if anything, is there about support from your school that influences those accomplishments?”, teachers cited experiences with receiving acknowledgement from others and seeing growth or progress in their students. Teachers with HTR reported experiences with accomplishments more than twice as often (46 references) compared to LTR teachers (22 references). The majority of the time (72% of references to accomplishment), teachers cited feeling accomplished based on their students’ accomplishments, such as learning, growth, and gaining confidence, thus, this sub-theme was labeled “student focused”, which was predominantly present in HTR teachers (34 references) compared to LTR teachers (15 references). These HTR teachers seemed to focus their sense of pride as a teacher on students instead of themselves. One HTR teacher reported, “it makes me feel accomplished that they know that I can help them learn.”, while another said, “just to see them grow mature in and to gain abilities and skills that they didn't think they really would ever have.” Another HTR cited students as the pinnacle of her accomplishment,

The students are the ones that are the ultimate stakeholders. Like, they're in the classroom. They're the ones learning. And if I am able to meet what they need, then that's being successful.

A more minor sub-theme of accomplishment was public acknowledgement of teaching performance including awards, tokens of appreciation, and written or verbal praise from leaders, students, colleagues, or parents. Similar to being student focused, this sub-theme was more predominant in HTR teachers (17 references) compared to LTR teachers (9 references). Strikingly, the HTR teachers valued recognition of student

performance more than recognition of their own teaching abilities. For example, one HTR teacher reported,

I was teacher of the year last year, but that was nice to...be recognized by, [colleagues and school leaders]. No, I mean, that's nice too. But yeah, I think the smaller things [with students] are really what's been important to me over the years.

And another HTR teacher recounted,

His mom and dad said he has gone farther than we ever thought he could. And so, I feel like as a teacher...there's lots of things I do wrong and probably things I could do better, but, you know, that made me feel so good because it's just like, so much potential.

In contrast, one LTR teacher seemed to feel a strong sense of affirmation and satisfaction when she received a formal teaching award,

But to acknowledge the knowledge that I have to have, the skill set, the ability. The passion, um, that was really huge for me.... it's almost, I would imagine I've never done drugs, [but]I would imagine it's kind of like chasing a drug high. Like, you know, you want the next wave of...goodness to wash over you.

She went on to explain why receiving acknowledgment from others helped fortify her as a teacher, "It makes you want to do more. And makes you want to work harder. Okay it validates what you're doing, too." However, she expressed not receiving as much acknowledgment as she might prefer.

Teaching skills. In describing experiences related to the themes of protective factors, participants referred to their own teaching skills 15% of the time, with the

majority of references cited by HTR teachers (23) versus LTR teachers (6). Three sub-themes emerged: classroom management, engaging instruction, and student involvement, all predominantly reported by HTR teachers. In terms of engaging instruction, teachers described how they worked to create engaging lessons to maintain student interest and facilitate learning. Also, teachers associated their own sense of satisfaction and engagement in creating and delivering engaging instruction for their students. One HTR science teacher explained how she enjoyed, “finding practices that still challenge my students” and explained how it helped her, “to really be the best for the students and really, I mean, as a teacher, like, that's the whole point.” She even admitted enjoying thinking about creating lessons in her spare time, “I'll be sitting down to, like, just chill and watch a movie and I'll be like, I wonder if I can get [anything] from this [movie] into a lab”. Another HTR teacher who reported a lack of curricular resources as a challenge in her school explained how working to find and employ existing lesson plans was a source of motivation for her as a teacher,

it's good for me. Because...it's those [other] things that I have to do...to help enhance the lesson. It's hands on...so it's good for them because it's hands on. It's good for me because I don't have to try to search and come up with my own thing. So I think...it's good for me and for them and I think that's a win-win there.

Possessing effective classroom management skills stood out as another sub-theme amongst HTR teachers (HTR = 9 references, LTR = 3 references). HTR teachers cited having few behavior problems with their students because they felt comfortable managing their classroom in a positive and kind manner. In particular, they reported downplaying any sort of power struggle between themselves and students,

I go talk to the student quietly and tell them specifically what I need them to do.
And they know from the very beginning that I care about them. I listen to them.

Another HTR teachers said

It's not a power struggle about everything...so that being empathetic and thinking,
how you would feel as if your child was treated like that I think, is...I wish every
teacher thought that.

Additionally, one HTR teacher cited the classroom environment she maintains (a career
technology class),

a lot of times, I don't deal with a lot of discipline issues in my classroom just
because of the nature of students [signing] up to be here and it's like a
professional setting.

A more minor sub-theme found in teaching skills was student involvement. Three
HTR teachers reported being involved in student organizations while only one LTR
teacher referred to this type of student involvement. The HTR teachers described how
student involvement was not an obligation but a source of satisfaction for them. For
example, one teacher who was involved in many extra-curricular activities with students
stated,

For some people, the extras are really fun for them, and that enhances their job
and, like, it makes them feel accomplished. So, I'm like one of those people...I
look like the extras [and] I don't mind doing it.

Threats. When asked, "Tell me what you do when you face challenges at school
and what resources you use to overcome those challenges", and "Alternatively, can you
tell me about things outside of school that may be diminishing your resilience as a

teacher?”, the theme of threats emerged when participants described issues that threatened or took away from their sense of teacher well-being and/or teacher resilience. Participants made a total of 240 references to threats with the majority of references cited by LTR teachers (70%) and to a lesser extent by HTR teachers (30%). Seven themes accounted for how teachers experienced threats to their well-being and resilience: inflexibility, feeling invisible, lack of colleague support, mental health issues, stressors at school, stressors outside of school, and unsupportive leaders (Table 29).

Table 29*Threats Themes and Sub-themes*

Themes	Sub-themes	References		Respondents	
		#	%	# High TR	# Low TR
Inflexibility		5	2%	0	5
Invisible		19	8%	0	19
Lack of colleague support		31	13%	12	19
Mental health		12	5%	5	7
Stressors at school		96	40%	35	61
	Bureaucracy	23	10%	1	22
	Juggling	14	6%	7	7
	Lack of resources	36	15%	15	21
	Overwhelming parent involvement	3	1%	3	0
	Post-COVID	18	8%	6	12
	Student behavior	7	3%	3	4
Stressors outside of school		17	7%	2	15
	Family stress	7	3%	2	5
	Public Pressure	10	4%	0	10
Unsupportive leaders		76	32%	25	51
	Disconnect	25	10%	10	15
	Lack of presence	14	6%	8	6
	Not valued as professionals	37	15%		
Total		240		73 (30%)	167 (70%)

Note: The Nvivo Crosstab Coding Query reports on the overlapping of coding and not the total number of coding references at a source.

Inflexibility. Although the theme of inflexibility was only cited by two LTR teachers, it stood out as a crucial component of their personal threats to teacher well-being and resilience. In contrast to a growth mindset, a fixed mindset represents the perspective that one is unable to grow beyond set limitations (Dweck, 2008). These two teachers described an unwillingness to adapt to new situations or potential changes at

school which may be out of their own control or an inability to “turn off” thoughts or pressures of school outside of the school day. One teacher confessed, “this isn't a 40-hour week job. This is almost you're almost always on.”, and “I don't know anything other than being a teacher. I don't know that I have any aspirations beyond the classroom.” Another LTR teacher reported how a change of circumstances at school might lead her to quit her job, “If they chose to move me. I would quit.” And indicated a fixed mindset by admitting,

I can't redo it. I can't learn. I can't re-teach a school who I am. I can't re-teach a building. It would be very hard on me and it would be very hard on the building. Um, this building, that was me. So that would ruin me.

Invisible. A stark theme of feeling invisible was distinct amongst the LTR participants, with all references to this theme coming from LTR teachers. Although invisible accounted for only 8% of all threats references, feeling invisible as a teacher seemed to have a profound impact among this group. In these experiences, teachers expressed not feeling recognized for their contributions and abilities. They felt invisible and hurt because they were not acknowledged for their work, especially by their school leaders and peers, and therefore may have questioned their competence as a teacher. One LTR teacher recounted, “sometimes we, as teachers are invisible and they don't necessarily always see all of the good work that we do.” While another LTR teacher described the “what” of feeling invisible as,

[lacking] the support pieces, the acknowledgement that, that you're there feeling like, somebody knows you're there can really help you get over hurdles where you feel just like this nameless, faceless person.

All of these teachers described how the lack of acknowledgement hurt their sense of validation. Two LTR teachers in particular seemed to be very extrinsically motivated by praise from others and felt invisible when they did not receive this praise. One participant stated, “I don't necessarily feel seen here. And I know that they could replace me if I was gone.” as if she did not feel valuable to her school leaders. She reasoned that when she received praise, it was evidence that she had worked hard,

When I do finally get the compliment from them, it's going to be because I busted my a** and it'll probably mean twice as much...how do you know that? It's because you really busted your a** and then it's worth more.

Another LTR teacher explained,

I want that same gold star. I was that kind of student. Like, I was a gold star student, and I'm a type “A” personality and so I want that recognition from my bosses. I want that recognition from my peers.

She went on to confess a powerful statement, “and yet the light, small child in me feels very hurt that I don't get that recognition from my peers and my bosses”, thus, indicating her need for external validation.

Lack of colleague support. This theme accounted for 13% of the references to threats to teacher well-being and resilience, with 19 of the references coming from LTR and 12 from HTR. Overall, this theme represented experiences of teachers with a lack of colleague support in colleagues who are overly negative or “toxic” to their sense of well-being as a teacher, or not having adequate staff in the building. Notably, the majority of HTR references in this theme (10 out of 12 total) were based on having inadequate staff, while the LTR references were primarily based upon negative relationships with

colleagues (15 out of 19 total references). One HTR teacher reported, “we've cut more and more classroom and building aides until we hardly have any left. And that's huge.”

Additionally, a LTR teacher accounted,

I'm sad to see we lost, I think 40 to 50% of our staff left last year. And that's not even all that uncommon around here. We've lost, yeah, we have...100 staff members, 40 are gone in a year and we just keep going. You got to build some sustainable community.

In contrast, the LTR teachers cited toxic relationships or disconnect with colleagues. One admitted, “I don't hang out with any teachers. I don't do anything”, and explained that she felt like she had nothing in common with most of the teachers in her building. She also admitted feeling resentful towards a new colleague who had assumed some of her previous responsibilities. Another LTR teacher described the impact of school scheduling on her relationships with colleagues, “So none of us have the same lunch period anymore. So that got disbanded. And I miss that...camaraderie with my teachers”. Finally, another LTR teacher described how she regularly spent time with another colleague to talk and commiserate but explained, “it felt more poisonous than purging.”

Mental health. Issues with teachers' mental health and students' mental health emerged as a theme for only 5% of the threats, with 5 references from HTR and 7 from LTR, representing a fairly balance mix between the two groups. Mental health was often associated with an increased need for mental health resources in schools. All mental references from HTR teachers were concerning the mental health of students (HTR = 5 references, LTR = 6), while only one LTR teacher spoke of mental health issues with teachers but in three separate references. One HTR teacher stated, “our kids are really

struggling right now with mental health. Their parents are struggling with mental health and sometimes the academics are just not the most important thing.” Yet another noted an increase by explaining, “we are just running into more, I call them the ‘tweener’ kids...the students that aren't necessarily on [IEPs], but kind of fall through the cracks and struggle. [These students] just don't know how to [be successful in] school.” The LTR teacher who reported mental health issues with teachers said, “the present situation of education and mental health of teachers. It's so hurting right now.” She went on to explain why mental health issues posed a threat to teacher resilience (TR) and teacher well-being (TWB) by saying, “Just, like mine [mental health challenges] comes with me except I’m an adult, and I'm supposed to know how to shut it off and cope with it. And that's genuinely not always the case every day”, representing the difficulty in approaching the job of teaching when a teacher is struggling with an issue mentally or emotionally.

Stressors at school. This theme accounted for the largest number of references (40%) explaining teachers experiences with threats, with more than double stated by LTR (64%) compared to HTR (36%). Stressors at school was categorized into several sub-themes: bureaucracy, juggling, lack of resources, overwhelming parent involvement, post-COVID-19 pandemic challenges, and student behavior, with the majority of references attributed to a lack of resources (38%). Significant statements for each sub-theme of stressors at school is represented in Table 30.

Table 30*Significant Statements Representing the Theme of Stressors at School*

Sub-theme	Significant statement	Teacher Resilience Level
Bureaucracy	Because the people making decisions at this state have not a clue about how education really works.	LTR
Juggling	It's very hard to juggle all of these things...while also trying to do the best job for the kids	LTR
Lack of resources	If I had something more like that [curricular resources], instead of trying to come up with everything on my own, I feel like I could do a better job.	HTR
Overwhelming parent involvement	We have amazing parent involvement. Amazing. It can be overwhelming...it could almost be a debtor.	HTR
Post-COVID	Issues that were not near as bad before COVID. It's like we're trying to retrain them.	LTR
Student behavior	I am struggling with it [student behavior] even more this year. I feel like I've been a meaner teacher than I ever have been.	LTR

Bureaucracy. This sub-theme was largely reported by LTR teachers with their references accounting for 22 out of 23 total references, almost 10% of the total theme of threats. Teachers described bureaucracy as issues related to the “red tape” that schools must enforce including state-mandated policies, assessments, and evaluations. Only one HTR teacher referred to bureaucracy as a threat, citing, “So that's definitely a problem, the state testing...I would love for that to go”. However, bureaucracy was a significant stressor for LTR teachers. A notable emphasis was placed on the Ohio Teacher Evaluation System (OTES) evaluations. One teacher admitted, “it's formal observation year so oh, is always a huge stressor.”, and another explained, “Evaluations are like the stressful thing to learn because you only know how a new administrator evaluates by getting evaluated and the system.” One teacher expounded upon how the stress of OTES impacted school dynamics,

it's all well and good to decide at the state level, "here is how you can prove you're doing your job"...and here's how to prove that American students are reaching the milestones they need to reach. But it's just not reality. And, so you see, it sounds like that principals are held to those mandates. Right? You still have to teach your students. But then it's like those two things don't mix.

She also explained, "So all of those things [bureaucracy] about teaching that were untenable before, but we were like, the frog slowly boiling", in reference to the "red tape" mandated by the state and feeling as if the pressure of these frustrations had been steadily increasing. And yet another teacher reasoned, "while I try to pay attention to my rating each year. If I look at that for myself worth...I'll collapse." He went on to offer a solution to the stress of bureaucracy,

If Mike Dewine got on the television right now, and, you know, eliminated LPDC requirements or brought them down significantly. Um, we would all have something to celebrate.

Juggling. Juggling was another sub-theme that was equally represented in HTR and LTR groups. In these references (14 total), teachers described the struggles they had with balancing their work responsibilities within the work day and having enough time to complete all the daily tasks of being a teacher. One LTR teacher reported, "too many additional hoops to jump through that have nothing to do with teaching", while a more inexperienced HTR teacher admitted, "I just don't know how to balance all the [responsibilities]. I think [that is] the toughest for me... you just don't feel like you're doing enough." One LTR teacher with 0-7 years of experience made an enlightening

statement on the specifics of juggling and how this threat may impact inexperienced teachers,

I'm juggling the new OTES evaluation gifted training, which has to be a certain amount of hours and I have not met those hours yet. ...I'm juggling licensure, which is a 5-year process...if you ask a lot of teachers, they'll tell you that it's those last 2 years that's when they start getting [in] gear. Um, we're juggling...WEPs for gifted kids. You have to have all the 504 plans...I'm not against special education and then the rest of people have to do RESA. Um, and we then demand...that teachers also do the job in the classroom, and it's no wonder that those new people are the most likely to leave because they work so hard and they don't see the benefit because...they don't get the benefit [of experience] in the classroom the way a veteran teacher does, they don't get the good stuff from the kids, because they're still figuring out how to teach.

Lack of resources. This sub-theme was the second largest sub-theme of stressors at school accounting for 38% of the references with 15 references made by HTR teachers and 21 references made by LTR teachers. Teachers described inadequate resources that affected their ability to do their job including instructional materials, lack of time (for teaching, planning, grading, collaboration), and inadequate financial compensation. All of the references to inadequate financial compensation came from LTR teachers (11 references), while lack of materials (HTR = 5, LTR = 4) and lack of time (HTR = 10, LTR = 7) were more balanced. The teachers who described inadequate financial compensation reported not being paid for extra duties or time beyond the classroom and

referred to lack of funds to adequately pay teachers. One LTR teacher explained how poor funding related to challenges for teachers

When you're operating and you can't pay your teachers for the jobs that they do. And you can't buy enough supplies, or you can't buy new textbooks, or you don't have one-to-one technology, which we don't... you can't get a lot of things done in this century of life. Everything is just about digital.

In terms of a lack of time, teachers cited not having enough time to adequately teach required content, such as, “you're doing it in 180 days if you get all of them. Um, so okay, so that's a lot of content.” (LTR). Several teachers reported not having enough time to collaborate with colleagues. One HTR teacher, reported, “collaboration with other teachers...there's not a whole lot of time during the school day to do that.” Another HTR teacher with 0-7 years of experience referred to not having enough time in multiple statements. She stated, “time is, I think the biggest issue, it's so much to do, and it's a little time to do it.”, “so much to do, and not enough time to do it.”, and, “I think time is a huge thing.” indicating that she felt very overwhelmed and that if she had more time, “I could get all the extra paperwork and stuff done, then I would probably feel better about, you know, where I was at as a teacher.”

Overwhelming parent involvement. This sub-theme was only cited by one HTR teacher, but she reported few other threats which made it stand out among her experiences. She contended that the level of parent involvement in her district was at times a “debtor” because the level of involvement was frustrating for teachers and not helpful. In particular, she explained that parents would sometimes bypass teachers by communicating issues directly to school leaders, “But it's that initial...empowerment to

go straight to the superintendent” and explained how this was, “stress-inducing for teachers”. The overwhelming parent involvement seemed to detract from a sense of trust that she desired from parents, and offered, “sometimes it's so much because some parents don't trust what we're doing, and this is going to be at any school. So, they have very loud voices.” Thus, indicating a need to be trusted as a professional by parents.

Post-COVID. This sub-theme quickly emerged during the interviews because eight participants recounted a negative aftermath of COVID-19 pandemic in terms of aberrant student behavior, gaps in academic and social progress, increased use of cell phones, and associated mental health issues. One LTR teacher reported, “I feel like each year has just been a new kind of hard since COVID, but things are smoothing out a little bit”. The majority of these references (67%) came from LTR teachers. They referred to threats from challenging student behaviors, such as, “more childlike activity”, abnormal “scholarly function”, and “issues that were not near as bad before COVID. It's like we're trying to retrain them.” And one teacher explained the threat of increased digital device use,

we're battling the digital age, we are battling an addiction to cell phones. An addiction that only thrived in COVID. Because where was all of their classwork?

Where was all of their social interaction? 100% digital and they're addicted to it.

Another LTR teacher expressed,

The behavioral retraining after COVID is a huge factor for all of us teachers.

They [students] don't understand expectations. It's constant reminders and constant redirection with their phones and heads down and...language, behavior.

One HTR teacher cited an increase in teacher stress related to COVID-19 issues based on the lack of substitute teachers. She reported, “since COVID we've had to cover for every building because we just really don't have any subs”. This participant recounted how teacher shortage took a toll on her well-being as a teacher, “So, I really tried to be out as little as possible. But that's really exhausting. That's a really exhausting pace to keep for the last 3 years.”

Student behavior. This sub-theme was minor in comparison to other sub-themes and balanced between HTR (3 references) and LTR (4 references). Of the three teachers who reported student behavior as a threat, all of them made references to teachers feeling frustrated with student behavior in terms of lack of “back-up” from school leaders. One HTR teacher asserted that she did not have many behavior problems of her own, but reported hearing about issues from other teachers in her building,

Sometimes those teachers kind of become the bad guy to that student. Um. But if they have discipline issues, they'll send them to the office. Either nothing happens or like, they're like, that's a bad thing to do. Like, they just they don't feel like there's any teeth behind it.

Stressors outside of school. Participants referred to stressors outside of school in 7% of the references to threats, predominantly cited by LTR teachers (15 out of 17 total references). Two sub-themes were fundamental to stressors outside of school, family stress and public pressure. Two HTR teachers only cited family stress as an outside stressor and specifically reported aging parents as the source of stress. For example, one HTR teacher acknowledged,

My father right now is going through some things where it's like, whoa, this is new, this is different. They're aging parents...that's struggling, you know, it's just something that's new that you have to kind of figure out and it's challenging.

Public pressure was a conspicuous sub-theme for outside stressors among LTR teachers. Three of the five LTR teachers placed emphasis on the impact public pressure to their sense of well-being and resilience as a teacher. They described pressure from American politics that affected their identity and public role of being a teacher, including pressure from social media. One LTR teacher stated, “Living in the United States is an issue. But the politics in the United States drive me crazy.” Another asserted, “We carry advanced degrees, but society treats us like, babysitters. And they think that we're indoctrinating their kids and all we all really want is for them to be free thinkers.” They cited a strong dislike for political debates involving the polarization of educational issues or the negative light in which education/educators can be portrayed. One teacher said, “you have things that happen in the teaching world... like...politics about the teaching world...do not help any teacher [who] wants to stay being a teacher”. Yet another teacher explained,

I think the outside factors. It sucks, but it's just the reality. Social media, the news, the States, the red tape, the bureaucracy, the politics, the things that you read the other. Like, the people caught doing just really crappy teacher jobs, or...people who are in the profession for the wrong reason, that kind of stuff really drags you down.

All three of these teachers also described pressure from social media as a threat. For example, one stated, “you don't lead a normal social media life. You have to be really

careful about what you post to be careful about where you go and how you socialize and what you do.” Another LTR teacher accounted,

Social media can be the zeitgeist. Is a big thing...especially if you get into the education world too much, and start to listen to, like, some of the things that are going down [with education] laws...the discussions happening...this course of the world, it can be tough, especially when you get kind of dragged into it.

Unsupportive leaders. Lastly, unsupportive leaders accounted for 32% of all references to threats to teacher well-being and resilience. During the analysis, I debated on categorizing this theme as an antithetical sub-theme for the major theme of support, but during the process of structural synthesis, I recognized that teachers’ reactions to unsupportive leaders were inherent to them as individuals and their level of resilience, thus making it more of a threat versus a category of contrast to support. Unsupportive leaders were cited more frequently by LTR teachers, accounting for 67% of the references. Three sub-themes emerged for unsupportive leaders: disconnect, lack of presence, and not valued as professionals. The perception of “not being valued as professionals” made up the majority of references and were primarily shared by LTR teachers (30 out of 37% references).

In terms of disconnect, teachers expressed a sense of disconnect between themselves and administrators or colleagues and was cited by HTR teachers 10 times and LTR teachers 15 times. In this idea of disconnect, participants described a lack of trust, caring, and understanding. One LTR teacher stated, “Okay, probably not my principals anymore. Okay, not anymore...we lost the connection somewhere” to explain that she no longer felt connected or supported by her principals. Another HTR teacher accounted,

“it's that lack of transparency that just causes that disconnect”. She also went on to describe how the school leaders could be more connected to their staff,

When people are operating in their strengths, then that's where they will feel that support because people are recognizing, like, ‘hey, you're good at this’, like ‘let's have you do this’, and then, ‘let's have this group people do this over here’...Actually that's not like a defined thing, but if somehow this district could operate within people's strengths, I think, that that would be really cool.

The LTR teachers citing disconnect described feeling unheard and that their leaders did not recognize what really mattered to teachers. For example,

And no matter how many ways we say it and bring messages to leadership, things aren't addressed, or other things are addressed. That, like, nobody really cared about or mentioned, um, but it all seems to be, you know, in the name of well, this is how we're supporting you.

A different LTR teacher highlighted a distinct disconnect between what teachers needed and what the principal provided in terms of support,

My principal now is very big on snacks. That's it. Snacks she's got down. We got some snacks, you know, like gives teachers or staff snacks. No I'm sorry for kids, students or what? How about the future? We have snacks. We have donuts. We have a coffee cart.

Lack of presence emerged as another sub-theme of unsupportive leaders. Notably, it was cited by HTR teachers eight times and by LTR teachers six times. In these references, teachers described how school leaders were not visibly “present” in their classrooms or schools on a regular basis. The leaders did not regularly visit their

classrooms or they did not see them in the hallways. One LTR teacher said, “It's just they don't have time and they don't. You know, they're just not present.”, and described how her school leaders used to be more present in the past,

So the principals would stop in and just say hi to the students and just kind of touch base and say hi to us and everything. And that never happens unless it's a formal observation or walk-through anymore. So I miss that interaction.

One HTR teacher explained the why and how of the importance of school leader presence as, “if they don't get out and see what's going on in the buildings, they're just really missing out on what's really important.”, while another HTR teacher asserted, “I would love to see them like, it makes a difference to know that they care about what's going on in the classroom.” Thus, these two HTR placed emphasis on the school leaders seeing their students and being familiar with instruction. In contrast, the LTR teacher who referred to lack of presence indicated a need to be acknowledged or protected. For example, one stated,

They say it in a lot of emails. Oh, yeah good job. Great...you guys are all...doing such great work. But...I feel like those are empty statements because they haven't been in my classroom. They don't know what I'm doing...so, if they did stop by and maybe, when in the past, when they did stop by more often, and it was just kind of informal visits.

Indicating her desire to be validated by legitimate observations of her work. A different LTR teacher expressed a need for board members to be present to protect the district teachers from false accusations,

sometimes it feels like your board members hear this one thing floating out in society and [they think] it has to be true. They're not coming in and seeing you frequently in the building when teaching is happening. They're great at being at extra-curriculars. Um, so sometimes we're villainized really, really quickly with very little facts. And that feels really difficult.

Finally, the sub-theme of not valued as professionals was predominantly cited by LTR teachers (81%). Teachers described experiences of not being valued as professionals because school leaders did not solicit or use their input and expertise, or were not provided with time to collaborate with peers. One HTR teacher reported, “that other 50% of the time, when they're not being...encouraged, it's almost like they're like, treating teachers like they're high school students again, instead of treating them like, they're professionals.”, while one LTR teacher emphasized,

Teachers...[have] been ignored and..if we did take these issues to leadership...basically, this is our last ditch effort at feeling heard...you can only bash against the rocks so many times before it's like, well, this is just the way it is, and I'll be retired in 10 years, and then I won't have to worry about this anymore.

Thus, teachers cited that they expressed their ideas but felt frustrated and even “unheard” when their input was not used in making important decisions for the school. One LTR teacher explained that she wanted, “to be heard and your ideas at some point where I don't feel supported.” Another LTR teacher stated, “I think some decisions would be made differently. Um, made with teacher input.”, and, “it just reads as lip service to, ‘We are listening’”. This statement was the teacher’s way to say she felt that leadership says they listen but then the leadership does not incorporate teacher feedback into meaningful

changes. Then she went on to describe the emotional toll these experiences took on her as a teacher,

It just feels very much that now, as a teacher, we are just, it's like, I feel very lowly, kind of, you know, the lowly [cog] in the machine, just do your teaching thing, and we'll make all the decisions.

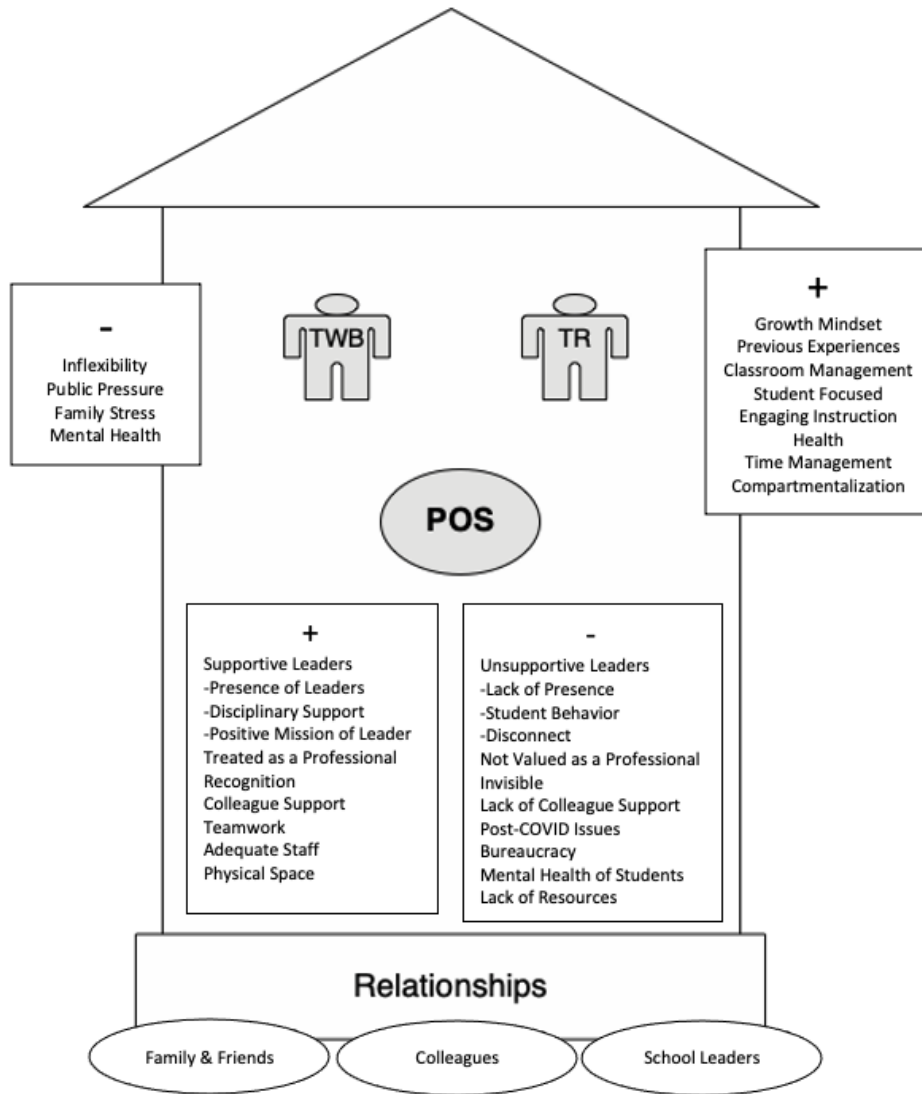
One HTR teacher described an experience with not being valued in the past by a former principal, “he'd been increasingly micromanaging people and kind of undermining your...competence, I think, in yourself and undermining relationships with your staff”, and explained, “you start to mistrust everybody under that kind of... management system.” This statement exemplified the importance of trust in the school community and how school leaders can damage a teacher’s sense of competence when they micromanage their staff.

Data Integration

To explain the quantitative results with the qualitative findings, the goal of an explanatory sequential mixed methods design, quantitative and qualitative data must be integrated, often using a visual display (Creswell, 2021; Decuir-Gunby & Schutz, 2017). To answer the overarching mixed methods research question, “How does organizational support contribute to teacher well-being and resilience?”, the conceptual framework of the study was applied to connect the qualitative data to the quantitative data (Figure 15). This approach was used to follow up on unexpected results and explain the surprising findings of phase one of the study (Creswell, 2021).

Figure 15

Data Integration of Quantitative and Qualitative Findings



Teachers with high levels of resilience described experiences with school support more frequently (74%) compared to teachers with low levels of resilience (26%). In particular, the high resilience teachers emphasized experiences with support pertaining to supportive leaders, being treated as a professional, colleague support, a sense of teamwork, and having adequate physical space. In terms of supportive leaders, HTR teachers stated the importance of the positive mission of school leaders, while all teachers

stressed the importance of presence of school leaders, disciplinary support, and receiving recognition. In contrast, LTR teachers described experiences with unsupportive leaders, not being valued as a professional, feeling invisible and not receiving recognition, lack of colleague support, frustrations with bureaucracy, and a lack of adequate resources (time, materials, financial compensation). Relative to experiences with unsupportive leaders, LTR teachers described feeling unsupported with student discipline issues and a sense of disconnect between teachers and school leaders. All teachers described experiences with post-COVID-related changes in student behavior and performance.

To help explain the unsupported hypothesized model, individual factors and factors outside of the school context were considered along with experiences related to accomplishment, engagement, and mindset since these variables stood out in the quantitative analysis as potential sources of model misspecification. Overall, HTR teachers recounted experiences with the theme of protective factors more frequently (61%) than LTR teachers (39%), while LTR teachers cited experiences with threats more frequently (70%) than HTR teachers (30%) Specifically, HTR more frequently reported positive experiences with the themes of growth mindset, classroom management, and engaging instruction. Whereas, LTR teachers more frequently cited negative experiences with inflexibility and stressors outside of school including public pressure and family stress. Experiences with the themes of relationships (family and friends), time management, and compartmentalization were relatively balanced among HTR and LTR teachers. In terms of accomplishment, HTR teachers most frequently reported experiences with the theme of student-focused, or feeling accomplished based upon student growth or achievement, and to a lesser degree based on experiences of receiving

acknowledgment from others. Finally, relative to engagement, experiences related to the theme of engaging instruction were primarily mentioned by HTR teachers (85%).

Chapter Summary

This chapter presented results from the phase one survey, the phase two follow-up interviews, and the data integration of both phases. Following the explanatory sequential mixed-methods design of the study, the quantitative results were presented first to answer research question one, followed by the qualitative results in order to use the interview findings to help explain the quantitative data and answer research questions two and three (Creswell, 2021). Data integration was woven throughout the reporting of the qualitative findings by comparing high-resilience (HTR) and low-resilience (LTR) teachers and was presented separately in a joint display of findings (see Figure 15).

The hypotheses for Research Question 1 (RQ1) and its associated sub-questions were not supported because the sample data did not support the hypothesized structural model for the proposed relationships between perceived organizational support (POS), teacher well-being (TWB), and teacher resilience (TR). However, some variables stood out as potential sources of model misspecification, including accomplishment, mindset, and engagement. For Research Question 2 (RQ2), the interview data indicated that HTR teachers reported experiences with school organizational support more frequently than LTR teachers, especially for the themes of supportive leaders, treated as a professional, colleagues, and recognition, whereas LTR teachers more commonly cited experiences with unsupportive leaders, feeling invisible, and bureaucracy. For Research Question 3 (RQ3), teachers shared experiences with personal and contextual protective factors and threats that impacted TWB and TR. High-resilience teachers more commonly reported

protective factors such as growth mindset and teaching skills, while LTR teachers more commonly reported threats, especially public pressure, family stress, and inflexibility. Overall, it was found that school organizational support contributed to TWB and TR through supportive leaders, colleagues, receiving recognition, having adequate resources, and being treated as a professional. Additionally, it was noted that personal factors, especially teaching skills, outside stressors and a teacher's sense of perspective, also contributed to teacher well-being and teacher resilience. These personal factors seemed to interplay with contextual factors in terms of POS, TWB, and TR which will be further addressed in Chapter 5. In Chapter 5, major findings and conclusions will be discussed followed by related implications for policy and practice. Limitations of the study and recommendations for future research will also be presented.

Chapter 5: Discussion

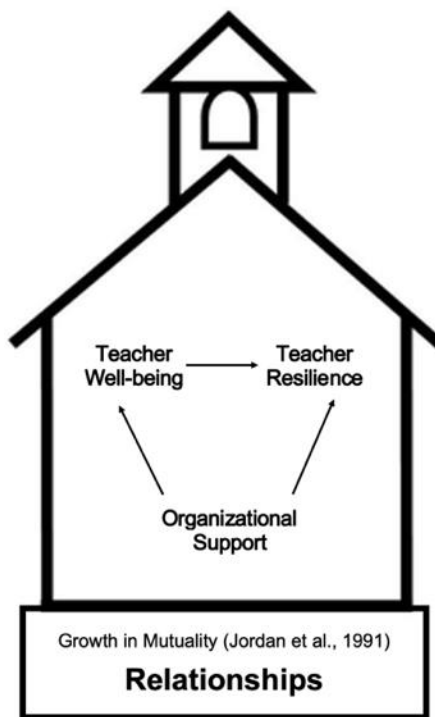
The purpose of this study was to investigate the relationships between school organizational support, teacher well-being (TWB), and teacher resilience (TR) in secondary teachers (grades 6-12) of Ohio public schools. Based on the results, teachers with high resilience experienced more school support and personal protective factors for teacher resilience than teachers with low resilience. School support primarily consisted of supportive leaders, colleagues, being treated as a professional, receiving recognition for one's work, and having adequate resources. In contrast, teachers with low resilience experienced less school support but more threats to their resilience, especially from unsupportive leaders, feeling invisible, public pressure, poor colleague relationships, and applying a fixed mindset. Thus, teachers who experience more school support and protective factors for resilience, especially those who have supportive leaders, strong relationships, and a positive mindset have a strong foundation to thrive in the classroom.

Applying a pragmatist perspective, it was proposed that POS, TWB, and TR are socially constructed but also unique to individual experiences and realities, and, therefore, can best be studied through mixed methods research in order to observe the basic truths of these variables and how underlying processes may be influenced by school contextual factors. The conceptual framework (see Figure 16) for this study was rooted in Relational-Cultural theory (Jordan et al., 1991) which posits that humans thrive when

they are engaged in positive interpersonal relationships. Additionally, concepts from three substantive content theories formed the underpinnings of the conceptual framework: Organizational Support theory (Eisenberger et al., 1986), Seligman's (2011) model of well-being, and Mansfield et al.'s (2016) teacher resilience framework.

Figure 16

Conceptual Framework of Relational-Cultural Theory and Substantive Content Theories.



Previous research has indicated that POS is associated with increased employee well-being (Caesens et al., 2020; Malik & Noreen, 2015) and teacher performance (Farooqi et al., 2019). Also, school support has been shown to be a critical factor in teacher resilience (Arnup & Bowles, 2016; Day et al., 2009; Gu, 2014) and commitment to the teaching profession (Beltman et al., 2011; Day et al., 2009; Peixoto et al., 2020). However, there is a lack of causal evidence for how POS contributes to teacher resilience, especially in relation to dimensions of well-being. In particular, there is a need to

examine the synergistic influences of contextual factors on teacher resilience. This sequential explanatory mixed methods study was conducted to examine how school organizational support contributes to teacher well-being and teacher resilience, the dynamic relationships among these variables, and capture the experiences that teachers have with these constructs by addressing the following three research questions:

RQ1: What is the structure of the relationships between perceived organizational support, teacher well-being, and teacher resilience?

RQ 1A: Is the estimated population covariance matrix generated by the hypothesized structural model for perceived organizational support, teacher well-being, and teacher resilience, consistent with the sample covariance matrix?

RQ 1B: How much of the variance in teacher resilience, both latent and observed, is accounted for by POS and teacher well-being? Of POS and teacher well-being, which variable accounts for the most variance in teacher resilience?

RQ 1C: What are the direct effects, indirect effects, and total effects among the variables, POS, teacher well-being, and teacher resilience included in the hypothesized structural model? Within the model, what is the relevant importance of various paths? Is the relationship between Perceived Organizational Support and teacher resilience mediated by teacher well-being?

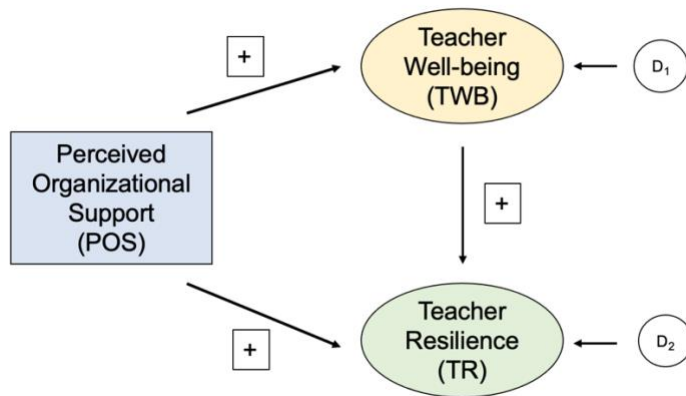
RQ2: How do teachers describe their experiences with organizational support and how does it contribute to teacher resilience in the school context?

RQ3: What do teachers experience in their school contexts that contribute to their own well-being and resilience as a teacher?

Drawing from previous research and the conceptual framework for the study, a hypothesized model for the relationships among the variables was proposed (Figure 17). It was hypothesized high levels of POS would correspond to increased TWB and TR.

Figure 17

Hypothesized Model



The study was conducted in two phases, quantitative followed by qualitative. The first phase utilized a survey to measure POS, TWB, and TR in a final sample of $N = 254$ Ohio secondary public-school teachers (grades 6-12). Data were analyzed using structural equation modeling using IBM Amos 28.0. For phase two, a subset of participants ($n = 10$) was selected from the original sample to conduct semi-structured interviews with a group of low-resilience teachers ($n = 5$) and high-resilience teachers ($n = 5$). Using a phenomenological approach and open coding, interview data were analyzed using Nvivo 12.0. In Chapter 5, I will summarize the findings from the study along with connections

to previous research, implications for practice and policy, limitations of the study, and recommendations for future research.

Discussion of Findings

Overall, results showed that school organizational support contributed to teacher resilience. Although the hypothesized structural model was not well supported by the survey data for the quantitative phase, the qualitative data from the interview phase indicated that teachers with high resilience had more experiences with positive school support and protective factors for resilience than teachers with low resilience. In this section, I will present major findings and conclusions according to each research question along with connections to previous research. Developing robust conclusions for mixed methods research depends upon effective data integration of quantitative and qualitative results and qualitative data are used to explain quantitative findings in an explanatory sequential mixed methods design (Creswell, 2021; Decuir-Gunby & Schutz, 2017). Thus, data integration will be woven throughout the summary of findings for RQ1, RQ2, and RQ3, as well as a separate section to underscore the major meta-inferences for the combined quantitative and qualitative results.

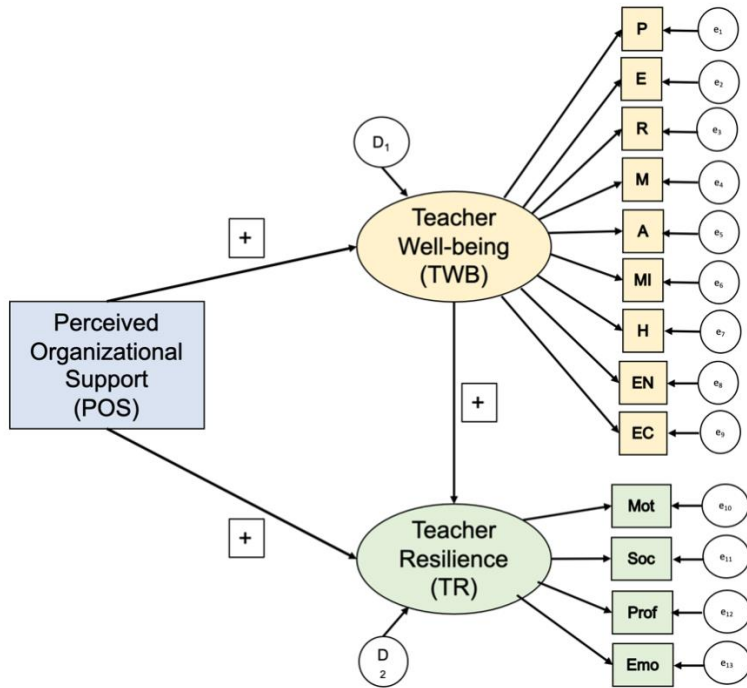
Research Question One

The goal of RQ1 and its associated sub-questions was to determine if the proposed structure of the relationships between variables was supported by the survey data from the sample ($n = 254$). A hypothesized measurement model (see Figure 18) was generated using theory, findings from previous research, and the dimensions from the selected survey instruments, the Survey of Perceived Organizational Support (SPOS) (Eisenberger et al., 1986), the Positive Functioning at Work scale (PF-W) (Donaldson &

Donaldson, 2020), and the Multidimensional Teacher Resilience scale (MTRS) (Mansfield & Wosnitza, 2015).

Figure 18

Hypothesized Measurement Model for Relationships Among Variables



Note: The hypothesized structural model displays perceived organizational support (POS) in blue as an exogenous variable which has a direct effect on the latent variables of teacher well-being (TWB) and teacher resilience (TR) with TWB mediating the relationship between POS and TR. In yellow, the latent variable TWB is represented by the measurement variables of positive emotion (P), engagement (E), relationships (R), meaning (M), accomplishment (A), mindset (MI), physical health (PH), environment (EN), and economic security (EC) dimensions. In green, the latent variable TR is represented by the measurement variables of motivational (Mot), emotional (Emot), social (Soc), and professional (Prof) dimensions.

For RQ 1A, using IBM Amos 28.0 for SEM analysis, maximum likelihood (ML) estimation was performed to examine the fit between the estimated population covariance matrix and the sample covariance matrix. The initial model was a poor fit to the data ($\chi^2(75) = 271.054, p = .000, GFI = .859, AGFI = .803, CFI = .827, NFI = .779, RMSEA = .102, SRMR = .0732$). As such, respecification of the model was pursued which shifted the analysis from a confirmatory approach to an exploratory approach.

To respecify the model, as recommended by Kline (2016) empirical results and justification from theory were used to add covariances between error terms of the indicators for the endogenous latent variables of TWB and TR. A total of four respecified models were tested (see Table 31).

Table 31*Models 1-5 Summary of Cutoff Criteria for Fit Statistics Used to Estimate Model Fit*

Fit Statistic	Obtained values for models					Cutoff ^a criterion for fit
	1	2	3	4	5	
p of χ^2	.000	.000	.000	.000	.000	> .05
χ^2 (CMIN)	271.054	244.667	229.309	205.353	131.918	$\geq df$
df	75	74	73	71	59	> 0
CMIN/ df	3.614	3.306	3.141	2.892	2.236	< 3.0
GFI	.859	.871	.880	.893	.927	$\geq .95$
AGFI	.803	.817	.828	.842	.888	$\geq .90$
RMSEA	.102	.095	.092	.086	.070	$\leq .10$
PCLOSE	.000	.000	.000	.000	.022	> .50
CFI	.827	.850	.862	.882	.924	> .95
NFI	.779	.800	.813	.832	.873	> .95
SRMR	.0732	.0714	.0685	.0635	.0573	$\leq .08$

Note. $n = 254$ secondary school teachers (grades 6-12). ^a p of χ^2 = probability value of model chi-square test statistic (Kline, 2016); CMIN/ df = minimum discrepancy divided by degrees of freedom (Kline, 2016); GFI = Goodness-of Fit Index (Tabachnik & Fidell, 2013); AGFI = Adjusted Goodness-of Fit Index (Tabachnik & Fidell, 2013); RMSEA = root mean square error of approximation (Kline, 2016); PCLOSE = p-value for the RMSEA test of close fit (Byrne, 2013); CFI = Comparative Fit Index (Kline, 2016); NFI = Normed Fit Index (Tabachnik & Fidell, 2013); SRMR = standardized root mean square residual (Tabachnik & Fidell, 2013).

Although, model fit indices improved with each respecification, no model was retained and, after model 5, additional modifications could not be substantiated by theoretical underpinnings. When the rationale for respecification moves beyond what is theoretically supported, it is better to retain no model than to further respecify because the model may become overparameterized, where a good fit occurs at the expense of too

many parameters (Kline, 2016). However, the unexpected findings from the model modification indices and standardized residual covariances were noted for consideration in the development of qualitative interview questions and overall data integration. A summary of Model 5, which produced fit statistics closest to acceptable cutoff criterion, is shown in Figure 19. Model 5 contains covariances that were added for each iterative respecification. I will discuss conclusions based on model respecifications in the next section.

Figure 19

Model 5

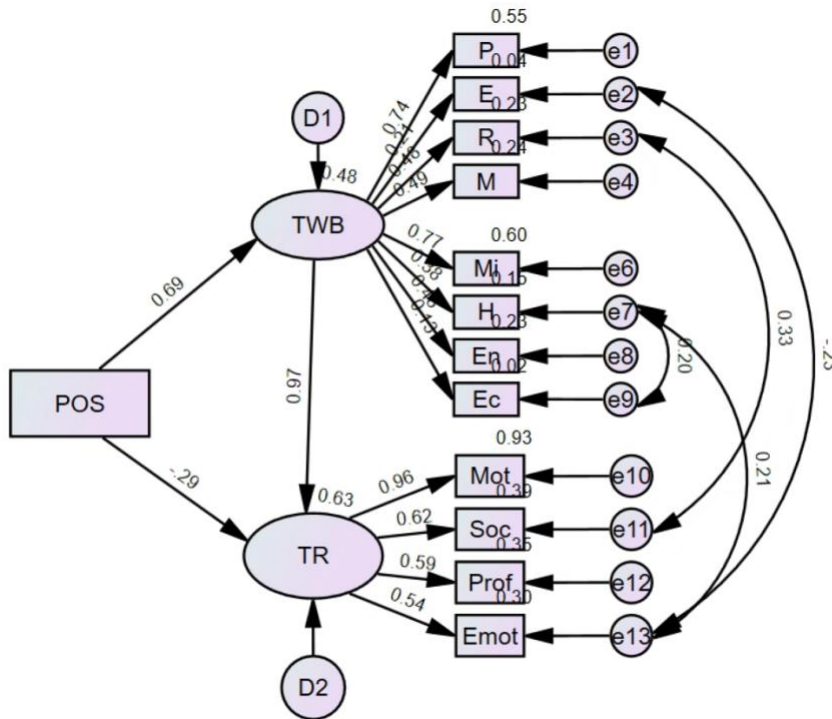


Figure 19. Model 5. POS = composite score for perceived organizational support; TWB = teacher well-being; TR = teacher resilience; P = positive affect; E = engagement; R = relationships; M = meaning; Mi = mindset, H = health; En = environment, Ec = economic security; Mot = motivation, Soc =social; Prof = professional; Emot = emotional. Error terms: e1= teacher well-being (TWB) Positive Affect, e2 = TWB Engagement, e3 = TWB Relationships, e4 = TWB Meaning, e6 = TWB Mindset, e7 = TWB Health, e8 = TWB Environment, e9 = TWB Economic Security, e10 = teacher resilience (TR) Motivation, e11 = TR Social, e12 = TR Professional, e13 = TR Emotional, D1 = disturbance (or error term) for TWB; D2 = disturbance (or error term) for TR.

Model Respecification Conclusions. For each round of model respecification, conclusions were made to connect the findings to previous research, to guide the development of the follow-up interviews, and to consider for data integration, especially

since no model was deemed an acceptable fit and, therefore, results for RQ_{1B} and RQ_{1C} could not be used to generate conclusions. In model 2, a covariance was added between the error terms of TWB Relationships and TR Social which aligns with theory and previous findings. Seligman (2011) asserted that relationships comprise an essential component of well-being because they are used to fulfill socioemotional needs while Mansfield et al. (2016) purported a social dimension of TR based on the benefits of positive and supportive relationships with colleagues, school leaders, and students. Further, many previous studies have documented relationships as an antecedent of TR (Castro et al., 2010; Gu & Day, 2013; Le Cornu, 2013; Vance et al., 2015). Additionally, social relationships have been associated with TWB (Aelterman et al., 2007; Hascher & Waber, 2021; Simmons et al., 2019). Given these results, it was noted to look for experiences with relationships in the follow-up interviews.

In model 3, a covariance was added between the error terms of TWB Health and TR Emotional. The items for TWB Health assessed if employees feel physically healthy and in control of their own health, while the items for TR Emotional asked about positive emotions and management of emotions. Since these two dimensions indicated a covariance through the SEM analysis, perhaps if one's physical health is poor, then the emotional dimension of teacher resilience (positive emotions, sense of balance, staying calm) might be impacted. Physical and mental health have been proposed as essential components of general well-being (Butler & Kern, 2016; Seligman, 2008) and teacher well-being (Viac et al., 2020). Mansfield et al. (2016) asserted that the social dimension of TR consists of the ability to bounce back and apply emotional regulation while (Daniilidou et al., 2020) found that the emotional dimension of TR had the highest

predictive power for overall TR. As such, it was noted to seek explanations for the connection between health and TR in the qualitative data.

In model 4, covariances were added for the error terms between two pairs of variables, TWB Economic and TWB Health, and TWB Engagement and TR Emotional. The covariance between TWB Economic and TWB Health may have resulted from an overlap in measurement items because the PF-W scale assessed physical health with items concerning control of one's health and feeling able to overcome physical distress while items about economic security assessed a comfortable level of income including the ability to withstand health emergencies (Donaldson & Donaldson, 2020). For the covariance between TWB Engagement and TR Emotional, the standardized residual covariance was negative (-2.781), indicating an inverse relationship such that if teachers are not highly engaged in their work, then their positive emotions might decline. Seligman (2011) proposed that engagement is a component of well-being because when people are fully engaged in activities, it not only contributes to enjoyment, but to meaning and skill acquisition. Likewise, in previous studies, feelings of competence have been shown to predict TWB (Hascher & Waber, 2021) as did self-efficacy (Aelterman et al., 2007; Bower & Carroll, 2017).

Finally, in model 5 the indicator for TWB Accomplishment was removed from the model because the standardized residual covariance between POS and TWB Accomplishment was problematic (3.063) but a covariance should not be added between an exogenous variable and an error term of an endogenous measurement variable (Kline, 2016). This unexpected relationship between POS and TWB Accomplishment may have occurred as a result of measurement overlap because one item on the SPOS involved

accomplishment, “The organization takes pride in my accomplishments at work”. Alternatively, Seligman (2011) asserted that people pursue a sense of accomplishment separate from other elements of well-being, suggesting that accomplishment may be a more distinct construct for teachers that needed further exploration in the qualitative phase of the study. Finally, the SEM analysis results for model 5 indicated that model fit could be improved with additional covariances between the error terms of TWB Mindset and TR Professional (MI = 10.592, EPC = -.059) and the error term of TWB Meaning and the disturbance term for TR (MI = 13.741, EPC = .044). However, this relationship could not be substantiated by theory, thus additional model respecification was not pursued. Given these unexpected findings, the decision was made to use the qualitative data to attempt to explain the dimensions of mindset and meaning for teachers.

Research Question Two

The goal of RQ2 was to examine how teachers describe their experiences with organizational support and how it contributes to teacher resilience in the school context. To answer RQ2, experiences from all three major themes were relevant. Teachers with HTR reported more experiences with POS (74%) compared to LTR teachers, whereas LTR teachers reported more experiences with a lack of POS and threats to TR (70%) compared to HTR teachers, which supported the original hypothesis. Teachers characterized school support as feeling valued and cared for based on the following reasons: colleagues, supportive leaders, receiving recognition, being treated as a professional, and having adequate resources.

Using guidelines for phenomenological interviewing outlined by Bevan (2014) and Moustakas (1994), semi-structured interview questions (Appendix A) were

developed to contextualize, apprehend, and clarify the phenomena of interest for RQ2 and RQ3 and to follow-up on findings from the quantitative phase of the study. A subset of participants ($n = 10$) were selected from survey respondents who expressed willingness to be interviewed, including 5 teachers who indicated levels of high teacher resilience (HTR) and 5 teachers with low teacher resilience (LTR). Interviews were transcribed using Webex web conferencing platform and analyzed with open coding and phenomenological reduction using Nvivo 12.0 (see codebook in Appendix B).

Three major themes of teacher experiences emerged from the data: support, protective factors, and threats. Support consisted of experiences in which teachers perceived they were valued by their school for their contributions and supported in terms of their well-being, which was consistent with organizational support theory (Eisenberger et al., 1986; Kurtessis et al., 2015; Rhoades & Eisenberger, 2002). Beltman et al. (2011) concluded that teacher resilience is a dynamic mix of individual risk and protective factors and is highly influenced by the organizational context of schools. From the interview data, protective factors consisted of overlapping experiences among the dimensions of teacher well-being and resilience including factors that helped teachers overcome the challenges of the profession, to thrive, to be engaged, and to feel satisfied with the profession. Protective factors included personal and contextual protective factors, similar to findings on general resilience (S. Luthar & P. Brown, 2007) and teacher resilience (Ainsworth & Oldfield, 2019; Beltman et al., 2011; Mansfield et al., 2016). Threats consisted of experiences or issues that threatened or took away from school support, teacher well-being, and/or teacher resilience.

Colleague and leader support comprised the majority of references to support making up 67% of all references to support which is consistent with previous findings related to school support and teacher resilience. Although research on POS and TR has been limited, POS has been shown to be associated with job satisfaction, self-efficacy (Bogler & Nir, 2012), teacher performance (Farooqi et al., 2019), and decreased stress levels (Malik & Noreen, 2015). All of the teachers cited colleagues and disciplinary support as sources of support while HTR teachers emphasized the importance of teamwork, adequate staff, and the positive mission of school leaders. With respect to school leaders, Gu (2014) found that leadership qualities such as openness, fairness, respect, and compassion helped sustain motivation and commitment to the teaching profession. Aria et al. (2019) observed that school leaders who employed authentic leadership had teachers with positive emotions, strengthened relationships, and enhanced motivation, which led to increased teacher resilience. Similarly, Le Cornu (2013) concluded that teachers are sustained by relationships based on trust, respect, compassion, and integrity. Thus, school support, especially through relationship-related contextual factors stemming from colleague and leader relationships, helps to buffer the everyday stresses of teaching and help teachers thrive, (Ainsworth & Oldfield, 2019; Le Cornu, 2013).

Additionally, teachers characterized support according to two critical needs, to feel recognized and treated as a professional. One surprising finding was the consistent theme of HTR teacher experiences with feeling recognized or acknowledged through praise or formal awards or the notable lack of praise or recognition in LTR teachers which made them feel invisible. Teachers with HTR cited 80% of the references to

recognition as a source of support, while LTR teachers reported 100% of the references to feeling invisible. Similarly, LTR teachers who were not treated as professionals voiced this frustration quite loudly as 81% of the references to invisible as a sub-theme of threats. They felt very frustrated if their input and expertise was not used to make important decisions. These stark contrasts in feeling supported versus unsupported were sometimes mentioned by HTR teachers as well as LTR teachers in referring to previous experiences with different school leaders or former workplaces, which further highlighted that some areas of support are valuable and impactful to all teachers in terms of TWB and TR. Organizational support theorists posit that POS elicits two mechanisms to bring about beneficial employee outcomes, the norm of reciprocity (Gouldner, 1960; Levinson, 1965) and the fulfillment of socioemotional needs (Kurtessis et al., 2015). Previous findings have shown that POS is associated with enhancing social bonds and one's ability to cope with stress (Eisenberger, 2016; Kurtessis et al., 2015; Terry, 2014). Specifically, in teachers, decreased POS is associated with increased occupational stress and decreased performance (Malik & Noreen, 2015), while increased POS, especially from the factors of fairness, organizational rewards, and job conditions, were related to resilience and teacher performance (Deng et al., 2020; Farooqi et al., 2019). Consequently, teachers need to feel seen, recognized, and valued as professionals in order to thrive.

Finally, another somewhat surprising finding was the common theme of visible presence of school leaders as a source of support. All teachers indicated that the regular presence of school leaders in their classrooms and in the hallways made them feel supported and that any notable lack of presence made them feel unsupported. Based upon the norm of reciprocity within organizational support theory, wherein mutual needs

between the employee and the organization are fulfilled, such as feeling validated and appreciated (Gouldner, 1960; Levinson, 1965), the regular presence of school leaders helps teachers feel appreciated and recognized for their contributions. For example, in an interview, one teacher attested, “We need to see you out and about and doing and caring and showing and seeing. Sometimes we want to show off. Yeah, but we also want that feeling of they see what's going on”. Thus, school leaders who maintain a visible presence in the school can positively influence teachers’ morale, self-efficacy, and commitment (Lambersky, 2016) and positively influence teacher resilience.

Research Question Three

The goal of RQ3 was to ask what teachers experience in their school contexts that contributes to their well-being and resilience as teachers. As outlined in the findings for RQ2, teachers reported school support as the primary contextual factor contributing to their TWB and TR. However, teachers also described their own unique mix of personal and contextual protective factors and threats for TWB and TR (Beltman et al., 2011; Brunetti & Marston, 2018; Mansfield et al., 2016). Although the intent of this study was to focus on contextual factors for TWB and TR, to consider possible confounding variables and to explain the unsupported model for phase one, teachers were asked to disclose outside or personal factors that they felt contributed to TWB and TR. Hence, the theme of protective factors emerged as overlapping codes among the dimensions of teacher well-being and resilience including factors that help teachers thrive and overcome the challenges of the profession while the theme of threats emerged as personal and contextual factors that took away from TWB and TR. The theme of threats, which was predominant in LTR teachers (70%), provided a valuable source of comparison because

the experiences shared related to threats stood in contrast to the experiences shared for support and protective factors.

Within the school context, teachers experienced supportive leaders, colleagues, being treated as a professional, receiving recognition, and having adequate resources as the primary factors that contributed to their TWB and TR. Beyond evidence already presented for RQ1, an additional notable finding was the consistent emphasis on colleague relationships. All teachers cited colleagues as fundamental to TWB and TR because colleague relationships helped them overcome challenges on a regular basis and helped form a sense of community. Luthar and Brown (2007) declared that “relationships lie at the roots of resilience” (p. 947) and previous researchers have established colleagues as a crucial influence on teacher resilience (Ebersöhn, 2014; Gu & Day, 2013; Vance et al., 2015). Moreover, Ainsworth & Oldfield (2019) found that relationship factors were stronger predictors of TR than individual characteristics. Consequently, colleague relationships are valuable to teachers based on a sense of collective moral purpose and responsibility (Gu & Day, 2013) and underscore the need for a collaborative effort within schools.

Notably, all participants attributed post-COVID-19 pandemic changes as potential threats to their TWB and TR, comprising 8% of all references to threats. Several studies have reported new problems in the teaching profession have arisen because of the COVID-19 pandemic, while other issues have been exacerbated including higher levels of stress, job dissatisfaction, and intentions to leave the profession (Diliberti et al., 2021; Hamilton et al., 2020; Steiner & Woo, 2021; Zamarro, 2021). Most participants reported changes in student behavior stemming from COVID-19, thus, increased levels of school

support such as mental health resources and having adequate staff can help combat these new challenges.

Beyond contextual factors, teachers also possessed personal characteristics and had experiences with things outside of school that impacted their TWB and TR including previous experiences, mindset, teaching skills, family and friend relationships, public pressure, and the ability to compartmentalize negative events. Even though these personal factors and experiences can be categorized as distinct from contextual factors, they are present within the teacher, thus always present within the school context. In other words, for each teacher, a dynamic mix of personal and contextual risk and protective factors is ever present and has the capacity to change over time, which is consistent with previous findings and frameworks for resilience (Beltman et al., 2011; Brunetti & Marston, 2018; Daniilidou, 2020; Mansfield et al., 2016; Ungar, 2013).

In terms of previous experiences, both HTR and LTR teachers attribute challenging previous experiences and previous years of teaching experience as sources of resilience. These findings are consistent with well-established models of resilience (Luthar & Brown, 2007, Masten et al., 1990, Southwick & Charney, 2018) and align with previous evidence that indicates that teachers with more experience are more effective in terms of student outcomes (Burroughs et al., 2019; Podolsky et al., 2019). However, other findings have documented that the relationship between teacher experience and effectiveness is highly complex and varies according to other factors such as school demographics and school support (Irvine, 2019; Rice, 2010). Therefore, previous experiences alone do not establish TR.

Another important finding was the need for teachers to compartmentalize or “let things go” in order to move on from negative events or challenging circumstances and to make time to decompress outside of work. There were 25 references to compartmentalize overall, equally balanced among HTR and LTR teachers within the theme of protective factors. This need for compartmentalization aligns with Mansfield et al.’s (2016) emotional dimension of teacher resilience whereby teachers demonstrate a sense of humor and emotional regulation. The emotional dimension of TR also includes the ability to establish a work-life balance and set boundaries (Brunetti & Marston, 2018; Mansfield et al., 2016). Moreover, emotion regulation has been found to be an important process in stress management for teachers (Schussler et al., 2018).

A somewhat unexpected finding was that teachers with high resilience demonstrated a positive outlook or growth mindset, with 87.5% of references to growth mindset being made by HTR teachers. This finding is relevant to the quantitative findings because the teacher well-being factor of “mindset” stood out as a potential source of misfit in the hypothesized structural model. Dweck (2008) and Duckworth et al. (2007) have previously established mindset and grit as fundamental components of well-being because individuals use these perspectives to have a malleable and perseverant approach to perceiving challenging situations as opportunities for growth. In contrast, in this study, LTR teachers demonstrated more of a fixed mindset in how they approached frustrations at school such as bureaucracy, outside of school such as public pressure, or working with challenging colleagues. Moreover, HTR teachers applied a more positive approach to working with others and the value of teamwork suggesting that a growth mindset might help them perceive organizational support in a different way than LTR teachers who do

not feel valued and also tend to possess more of a fixed mindset limiting their willingness to grow beyond limitations (Dweck, 2008).

Notably, LTR teachers recounted 95% of the experiences with frustrations with bureaucracy, or issues related to the “red tape” that schools must enforce including state-mandated policies, assessments, and evaluations, and 100% of the references to public pressure from American politics surrounding the identity and public role of being a teacher, including pressure from social media. However, all teachers in Ohio are potentially subjected to these same threats. Thus, perhaps HTR teachers apply a mix of personal and contextual resources in the form of growth mindset and school support in order to withstand stressors such as bureaucracy and public pressure and therefore demonstrate the ability to thrive despite these challenges (Ainsworth & Oldfield, 2019; Gu & Day, 2013; Mansfield et al., 2016). For example, one HTR teacher expressed frustrations with overly involved parents, but she demonstrated a strong growth mindset and reported a high level of school organizational support.

Another finding unique to HTR teachers was that they demonstrated effective teaching skills based on reports of good classroom management skills and using engaging instruction. Mansfield et al. (2016) defined TR as a capacity, a process, and an outcome while Deng et al. (2020) found that school support had positive impacts on creative teaching, which, in turn mediated TR. Teacher resilience is also associated with increased student performance (Duckworth et al., 2007; Gu, 2014) and teacher self-efficacy and the implementation of effective classroom practices (Cook et al., 2017). Accordingly, although teachers possess their own unique teaching abilities, school support may lend

itself to teacher resilience such that teachers who experience more school support have the capacity to become more effective teachers.

Finally, the dimension of accomplishment was specifically explored in the interviews because the quantitative results indicated that accomplishment was a possible source of model misspecification. A valuable follow-up finding related to accomplishment was twofold, teachers with HTR shared more experiences with accomplishment overall (67%) compared to LTR teachers, and of those experiences with accomplishment, teachers with HTR attributed their sense of accomplishment more towards student performance and growth (67%) versus receiving personal recognition. In Seligman's (2011) PERMA model of well-being, accomplishment represents a dimension of well-being in which people seek a sense of mastery, competence, or success for its own sake. Turner and Theilking (2019) found that teachers who applied PERMA based well-being strategies had an increased focus on the positive qualities of students and less focus on set curriculum and more focus on more engaging and meaningful lessons. Since the primary goal for teachers is to help students learn and grow, perhaps teachers who are focused more on their students as a source of accomplishment are more resilient than teachers who place their sense of accomplishment in external rewards or praise, especially when those HTR teachers also receive formal awards and receive praise to further fortify their sense of accomplishment.

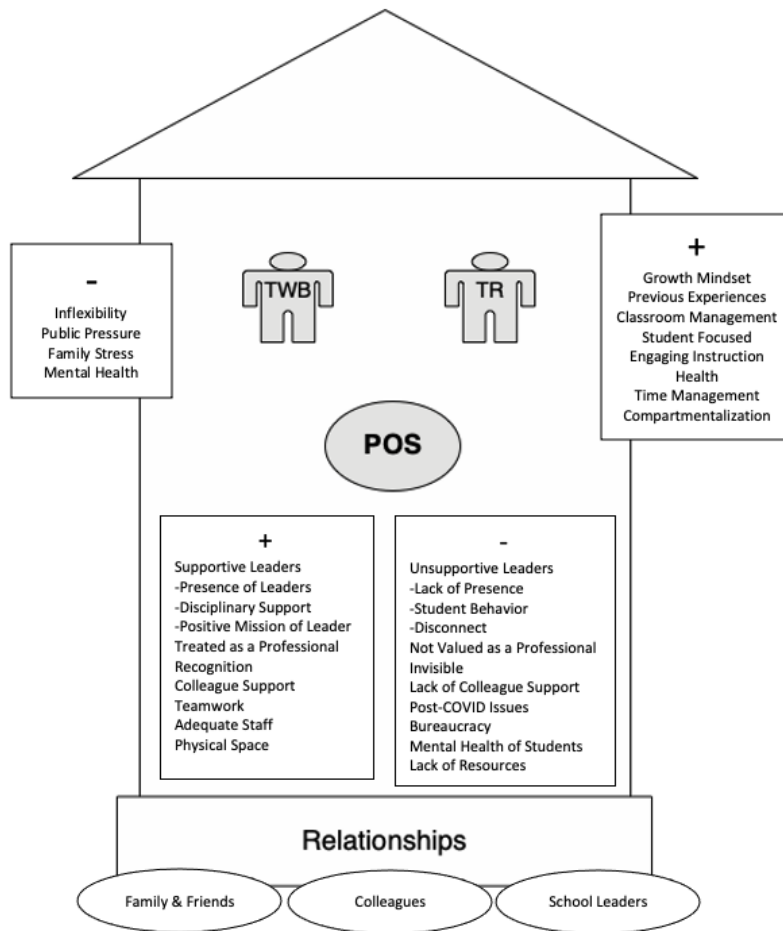
Conclusions

Overall, the conceptual framework of the study was supported by the findings (Figure 20). Although the hypothesized structural model was not supported by the data in the quantitative phase, the qualitative phase indicated that teachers with high resilience

experienced more school organizational support than teachers with low resilience and that relationship-based factors played a key role in TWB and TR. Overlap existed among the constructs of TWB and TR similar to previous findings that suggest teacher resilience stems from the building blocks of PERMA well-being (Crider, 2021; Kern et al., 2014; Turner & Theilking, 2019). Nonetheless, previous research surrounding TWB has been weakened by the lack of domain-specific approaches to examine specific factors that impact TWB and TR. In this study, the experiences shared by participants aligned with elements of the PERMA model of well-being (Seligman, 2011), especially in terms of relationships, meaning, accomplishment, engagement, and health, and related to the dimensions of the Multidimensional Teacher Resilience framework (Mansfield et al., 2016) in terms of motivational, social, professional, and emotional teacher resilience.

Figure 20

Data Integration of Quantitative and Qualitative Findings



Similar to previous findings, TR was found to be a complex and interacting network of personal and contextual risk and protective factors (Beltman et al., 2011; Brunetti & Marston, 2018; Mansfield et al., 2016). However, several valuable facets of both colleague and leader support were revealed in more detail in this study, including teamwork, the presence of leaders, the positive mission of leaders, recognition, and treating teachers as professionals. Additionally, the factors of mindset and accomplishment were distinctive and possibly problematic for the quantitative hypothesized model because they may be highly individual depending on a teacher’s

need for validation, sense of accomplishment, and personal level of growth versus fixed mindset. Regardless, TWB and TR can be considered a collective responsibility of schools as organizations (Gu, 2014; Jordan, 2018; Mansfield et al., 2016) because a synergistic network of contextual factors contributes to teacher resilience, especially factors that are rooted in relationships with school leaders, colleagues, and students.

Limitations of Findings

Sample

The study was limited by the sample of the survey in the quantitative phase and the sample of interview participants in the qualitative phase in several ways. First, the results were limited by teachers who responded to the survey. Due to incomplete coverage of the sample, nonresponse bias and sampling bias may have occurred, the results may be different from the target population of Ohio secondary teachers (Remler & Van Ryzin, 2011). The survey was sent to a wide variety of schools in attempt to stratify the sample, but when principals agreed to share the survey, it was not guaranteed that teachers would fully complete the survey. Also, it is possible that volunteer bias may have occurred if teachers with higher or lower levels of POS, well-being, and resilience were more inclined to respond to the survey, which may have represented volunteer bias. Although the follow-up interviews were designed to delimit this potential bias by selecting teachers with HTR and LTR, adequate representation of the intended population in the interview participants was also limited because 9 of 10 interview participants were females and all participants were white. Attempts were made to diversify the qualitative sample, but additional recruitment was unsuccessful.

Furthermore, socially desirable responding may have occurred during the interviews if participants felt obligated to give socially acceptable answers to some questions. For example, when asked about what gave them a sense of accomplishment, most participants were quick to mention something related to students possibly because they felt that was the respectable answer for a teacher to provide. Further probing into the “why” behind this sense of accomplishment may have clarified the essence of teachers’ sense of accomplishment as it relates to students over other sources such as praise from leaders or intrinsic motivation.

Measurement Issues

Another limitation was the possible invalid measurement of the constructs of interest within teachers as the unit of analysis, especially for POS and TWB because the selected survey instruments were not initially designed for teachers, representing issues with content validity, and there may have been too much overlap among the items measuring specific dimensions of related constructs, indicating issues with construct validity. In terms of content validity, The Survey of Perceived Organizational Support (SPOS) (Eisenberger et al., 1986) and Positive Functioning at Work (PF-W) scale (Donaldson & Donaldson, 2020) were designed for employees in general, not specifically for the teaching profession. Perhaps measures more closely aligned with the unique aspects of schools as organizations and teachers as professionals may have increased validity of results and a better fitting model. For example, some questions on the PF-W may have inaccurately assessed a teachers’ well-being at work. For example, a question about TWB Engagement, “I lose track of time while doing something I enjoy at work.”, may not have accurately reflected a teacher’s sense of engagement because teachers are

required to keep track of time throughout the school day to do an effective job with their students and manage the flow of their lessons. Another survey item that measured TWB Engagement was, “When I am working on something I enjoy, I forget everything else around me.” Teachers cannot forget everything else around them because they are responsible for their class and their students.

Similarly, the qualitative interview questions had limitations in terms of the structure and delivery of questions. Relative to school support, participants often equated school support with school leaders or colleagues and may not have considered the role of other contextual factors, such as curricular resources or class schedule, in contributing to their well-being and resilience. Additionally, when asked about teacher resilience, I provided an explanation of how I defined teacher resilience in the study in order to provide background for the participants,

This study defines teacher resilience as a capacity, process, and outcome. Teacher resilience is unique to the profession and the setting for each teacher. Teacher resilience is seen as a dynamic mix of personal and contextual resources to manage the challenges of being a teacher and thrive as a teacher. Thinking of that definition of resilience, tell me what you do when you face challenges at school and what resources you use to overcome those challenges.

Perhaps this definition was too lengthy or specific and may have limited what participants shared in terms of their resources for resilience. Teachers may have their own experiences with resilience that may not align with this particular definition such as pedagogical or instructional skills they use to be resilient in the classroom. Finally, although I conducted member checking during the interviews and after the interviews, I

only spent 30-60 minutes with each participant so they may not have shared all of their pertinent experiences with school support, well-being, and resilience. Only one participant followed up with clarifying comments in response to the post-interview emails I sent for member-checking purposes. Moreover, the interviews were conducted in December, a time period in the year where teachers typically feel more stressed right before the winter break. Ideally, I could have conducted interviews several times throughout the school year to gain further insights and clarity toward conclusions.

Regarding item and construct overlap, one issue became apparent during the SEM analysis. The SPOS includes one item that refers to accomplishment, which may have presented too much overlap with items representing the accomplishment dimensions in the PF-W scale and therefore, may have contributed to poor fit of the data to the hypothesized model. Additionally, the Multidimensional Teacher Resilience scale (MTRS) (Mansfield & Wosnitza, 2015) demonstrated potential problematic overlap with items the PF-W, especially for the dimensions of TWB Engagement, TWB Relationships, TR Emotional, and TR Social as noted in the SEM analysis results.

Data Analysis

An additional limitation was that the constructs TWB and TR are both represented by a dynamic mix of personal and contextual factors. Thus, it was difficult to separate the two constructs when trying to uncover how school support specifically contributes to TWB and TR. Although interview participants were provided with a definition for TR, they were not provided with a definition of TWB because I wanted them to describe experiences with resources that they used to overcome the challenges of the profession but keep the questions relatively open-ended in terms of not confining them to the

dimensions of the PERMA model of well-being. In hindsight, it may have provided a distinction between TWB and TR if additional questions were added to the interview protocol to capture elements of PERMA such as positive affect or meaning. Moreover, since the study was observational and cross-sectional in design, the findings cannot be interpreted as causal. Since teacher resilience is dynamic and influenced by a variety of contextual factors, including relationships, school culture, teacher identity, teachers' work, policies, and practices (Beltman et al., 2011; Gu, 2014; Gu & Day, 2013; LeCornu, 2013; Li et al., 2019; Morgan et al., 2010), an experimental or longitudinal study might provide further insight into causal mechanisms behind the relationships between POS, TWB, and TR.

Likewise, limitations existed in the qualitative data analysis. Although I worked through several iterations of reading and re-reading the data files to identify emergent themes and codes, I was limited to my own perspective of how to best categorize and define the codes. Another researcher may have identified a different set of themes or categorized codes in a different fashion. Although I documented memos to bracket personal experiences, my own judgments and feelings may have introduced bias in the analysis, especially for those experiences shared by teachers that were emotionally laden such as feeling invisible or unheard. Working with a team of researchers could have further mitigated this personal bias by including a variety of perspectives for the analysis.

Implications for Policy and Practice

First, this study offers practical implications for school leaders on individual and organizational practices that contribute to TWB and TR, especially in terms of what type of school organizational support is deemed valuable by teachers related to supportive

school leaders, colleagues, and adequate resources. Several interview participants acknowledged that their principal seemed very busy dealing with necessary tasks related to state-mandated policies such as teacher evaluations or state testing and so they might not have adequate time to support their staff. Regardless, based on the findings, school leaders can implement the following eight strategies to better support teacher well-being and resilience:

1. Provide dedicated time for teachers to work with colleagues
2. Be present in classrooms and school hallways on a regular basis
3. Show personal interest in teachers and the work they are doing
4. Acknowledge teachers for their contributions and strengths through regular feedback, public and private recognition, and formal awards
5. Regularly and actively instill a positive sense of mission for the school
6. Value teachers as professionals; seek and use their expertise for important decisions
7. Inspire and encourage teamwork among staff
8. Provide adequate resources (physical space, curricular and instructional materials)

Next, this study offers guidance for improving teacher education programs and school administrator programs on how to better incorporate training on school organizational support, TWB, and TR. Teachers and school leaders alike should be educated to better understand personal and contextual factors that contribute to well-being and resilience. Of workplace condition factors, perceived lack of leader support was the highest predictor for teacher turnover and teachers who reported poor support from school administration were more than twice as likely to leave the profession than teachers who

reported positive support from school administration (Carver-Thomas & Darling-Hammond, 2019). Additionally, teachers who experience high levels of POS show improved teaching performance (Deng et al., 2020; Farooqi et al., 2019), job satisfaction (Bogler & Nir, 2012) and ability to withstand stress (Malik & Noreen, 2015). Thus, future teachers and school leaders should receive education in their preparatory programs on how to practically improve school support and foster the dimensions of TWB and TR, especially in terms of mindset, relationships, and teaching skills. Often, the burden of TWB and TR lies with teachers themselves, so if more of a collective responsibility is fostered in these preparatory programs, perhaps the networks for building well-being and resilience in teachers will be strengthened. One practical strategy would be for pre-service student teachers to interview school leaders in their field placement schools on what levels of support exist according to the 8 practical strategies listed above. In doing so, the school leader would be required to actively reflect upon how school support is currently being achieved or not achieved in their school while allowing the pre-service teacher candidate to also reflect upon how teachers themselves can fortify school support especially through teamwork and colleague relationships.

In terms of personal protective factors for resilience, teacher-educator programs and professional development programs must include a focus on mindset training because a teacher's mindset appears to contribute greatly to well-being and resilience. Wessels & Woods (2019) found that teachers who engaged positive psychology practices guided by PERMA reported that their mindset and perspectives changed for the better by helping them to approach challenging situations with increased positivity. Similarly, Crider (2021) found that teachers perceived their ability to flourish was more within their

control when they applied a positive mindset. Regardless of context, all teachers could benefit from applying a positive mindset because it would help the synergy of other well-being factors including relationships, support from school leaders, and sense of accomplishment. Teachers who apply a positive mindset to other factors of well-being would reap more overall benefits such as stronger relationships with colleagues.

Lastly, school policies could be reformed to lighten the burden of bureaucracy on teachers and school leaders. Teachers with LTR commonly reported the stressor of bureaucracy, or issues related to the “red tape” that schools must enforce including state-mandated policies, assessments, and evaluations. Stress and burnout are primary factors contributing to decreased levels of teacher job satisfaction (Diliberti et al., 2021; Klassen & Chiu, 2010; Reilly et al., 2014), notably because of test-based accountability policies (Ryan et al., 2017). Additionally, Santoro (2018, 2019) observed that teachers leave the profession because they are demoralized, or frustrated with school policies and practices that limit their ability to be good teachers. Interview participants often cited the Ohio Teacher Evaluation System (OTES) as a considerable source of frustration. If state policymakers overhauled this evaluation system to make it less burdensome for both school leaders and teachers, then school leaders would have more time and energy to support teachers and teachers would have more time to teach.

Recommendations for Future Research

There are several recommendations for future research. First, given the inadequate model fit and potential measurement issues for TWB, future researchers could develop a more accurate measure of TWB based on the PERMA model of well-being. Previously, a wide variety of well-being frameworks have been applied to studies of TWB.

Consequently, Hascher and Waber (2021) recommended that future researchers should specify and justify which model of TWB is employed in order to clarify the collective understanding of the nature of TWB. Although a few other instruments have been designed to measure TWB such as the Teachers Subjective Wellbeing Questionnaire (Renshaw et al., 2015) and the Teacher Well-being scale (Collie et al., 2015), neither of these scales specified a framework for assessing subjective well-being in teachers. Further, Seligman (2018) acknowledged that PERMA is not exhaustive, as more exploration of potential elements is needed.

Next, a follow-up study designed to examine the joint perspectives of school leaders and teachers would help elucidate the collective challenges and opportunities for using school organizational support to foster the development of TWB and TR. Guan and Frenkel (2021) recommended that organizations implement supportive practices and climates that build innovative and meaningful workplaces in order to capitalize on employee strengths. Likewise, Stinglhamber and Caesens (2020) called for future research that is multi-level in nature to further refine the understanding of relationships between POS and the complex network of interactions between personal and contextual factors which affect employee thriving. Thus, perhaps a participatory action research (PAR) study could be used to help researchers and participants better understand and improve upon school support practices. Using a 360-interview process would capture insight from various stakeholders on how school leaders and teachers as colleagues could improve their school support practices. Additionally, focus groups could be used to employ collective reflection and for planning the implementation of school support strategies. Since teacher resilience is highly relational and multidimensional based on

personal and contextual factors that are highly embedded in a teacher's network of relationships (Gu, 2014), a PAR study could serve to strengthen this network of relationships while serving to develop school support strategies that are tailored to a specific school.

Finally, since this study was observational and cross-sectional in nature, no causal mechanisms between POS, TWB, and TR can be concluded. Thus, an additional recommendation would be to use an intervention based comparative case study to focus on negative and positive cases for some of the most interesting aspects of the findings on school support from this study, especially the contrasting themes of positive mission of leader/disconnect, teamwork/disconnect, recognition/invisible, and valued/not valued as a professional. Case studies can be used to study a phenomenon of interest in a real-life context and to explain causal links in real-life interventions (Klenke et al., 2016). For example, an intervention of school support strategies could be applied at one school and compared to a similar school where no intervention is applied to study a positive versus negative case analysis. For the intervention, school leaders and teachers could be trained in effective school support strategies and work together to develop intervention plans that are specifically designed for their school. By comparing the school with intervention to the school with no intervention, further insights could be made into how school contextual factors play a role in the relationships between POS, TWB, and TR.

Conclusion

This study aimed to study the relationships between school organizational support, teacher well-being, and teacher resilience in Ohio secondary teachers (grades 6-12). Complex problems lend themselves to a more pragmatic approach, thus an

explanatory sequential mixed methods design was employed. Previous research surrounding the individual constructs of organizational support, teacher well-being, and teacher resilience has been well-documented. However, research involving the relationships among all three constructs has been sparse, especially when considering the synergistic influence of contextual factors that influence how these variables contribute to teacher resilience.

Although the quantitative phase of this study was not supported because the hypothesized structural model was not an adequate fit for the data, the qualitative phase of the study was substantiated by the interview data and contributed to the body of research surrounding school organizational support, teacher well-being, and teacher resilience with the following major findings: 1) teachers with high resilience had more experiences with school organizational support and protective factors for well-being and resilience than teachers with low resilience, 2) teachers primarily attribute school support to supportive leaders, colleagues, being treated as a professional, receiving recognition for their work, and having adequate resources, 3) teachers attest that a mix of school organizational support and personal protective factors contribute to their resilience, and 4) some personal factors seem to stand out as crucial to teacher resilience, such as mindset, a sense of accomplishment based in student performance, and demonstrating effective teaching skills. These findings present valuable implications for school leaders, teacher and school leader preparation programs, state policymakers, and teachers themselves.

More research is needed in the area of school organizational support, especially in the causative mechanisms for how school support contributes to specific dimensions of

teacher well-being and resilience such as growth mindset, accomplishment, and emotional resilience. Additionally, teachers and school leaders alike need to be involved in forming collective resilience strategies rooted in relationship-based factors such as teamwork, a positive sense of mission, and acknowledging others for their contributions to the school as an organization. According to the concept of growth in mutuality, relationships are the source of psychological health when people grow from mutual forces in relationships and lift each other up (Jordan, 2018). When teachers and school leaders rely upon each other, they can become collectively responsible for fostering teacher resilience on an organizational basis.

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Appendix A

Quantitative Survey Brief Consent Form

Hello! I'm a doctoral student at Wright State University and I'm conducting a research study on how school organizational support influences teacher well-being and resilience. I'm looking for teachers of grades 6-12 with to complete a brief survey related to these concepts. To maintain your privacy, all survey responses will remain completely confidential and any identifying information will not be disclosed to anyone other than the researcher. Data will be stored for future research but identifying information will not be retained. The survey should take about 10-15 minutes to complete. Participation is completely voluntary. Upon completion of the survey, you will have the option to enter your name into a raffle for one of five \$50 Amazon gift cards. Your responses will be very meaningful to this research. Thank you for your time!

Lisa Journell, M.Ed.
Doctorate of Organizational Studies Program
Wright State University
lisa.journell@wright.edu
IRB # 07274

If you have questions about your rights as a research participant or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher, please contact the following: Wright State University Institutional Review Board, Human Research Protection Program, University Hall 374, 3640 Colonel Glenn Hwy Dayton, OH 45435-0001 Telephone: 937-775-3974

By completing this survey, you are consenting to participate in this study:

- Yes, I would like to proceed. (1)
- No, I would like to exit the survey. (2)

Qualitative Interview Consent Form

CONSENT TO BE PART OF A RESEARCH STUDY

1. KEY INFORMATION ABOUT THE RESEARCHERS AND THIS STUDY

Study title: The relationships among organizational support, teacher well-being, and teacher resilience in secondary school teachers. Phase 2 – Qualitative.

Principal Investigator: Lisa Journell, M.Ed., Wright State University

Faculty Advisor: Dr. Yoko Miura, Ph.D., Wright State University

You are invited to take part in a research study. This form contains information that will help you decide whether to join the study. Please read and sign on the last page to provide your consent to participate.

1.1 Key Information

Things you should know:

- The purpose of the study is to examine the relationships between organizational support, teacher well-being, and teacher resilience in secondary school teachers.
- If you choose to participate, you will be asked to complete an online interview. This interview will take approximately 30-60 minutes to complete.
- There are no expected risks or discomforts from this research.
- Benefits of your participation include a gift card upon completion of the interview and possibly any personal insight gained while answering interview questions.

Taking part in this research project is voluntary. You are not required to participate and you can stop at any time. Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

2. PURPOSE OF THIS STUDY

The purpose of this study is to investigate how organizational support from schools may influence teacher well-being and teacher resilience in secondary school teachers (grades 7-12). Organizational support has been shown to be associated with many positive outcomes for employees. The overall goal is to provide a better understanding of how schools as organizations can collectively support teacher well-being and resilience through policies, practices, and relationships.

3. WHO CAN PARTICIPATE IN THE STUDY

3.1 Who can take part in this study? Teachers who currently teach grades 7-12 in Ohio are eligible to participate in this study. Teachers who do not meet these criteria are not eligible for this study.

3.2 How many people are expected to take part in this study? Approximately 12 teachers will participate in the interview phase of this study.

4. INFORMATION ABOUT STUDY PARTICIPATION

4.1 What will happen to me in this study? During this phase of the study, you will be asked to complete an online interview with approximately 12 questions. Interviews will be conducted using Webex web conferencing platform and recorded for transcription purposes. You will be asked to answer questions about your experiences as a teacher in relation to school support, well-being, and resilience.

4.2 How much of my time will be needed to take part in this study? The interview will take approximately 30 minutes but no longer than 60 minutes of your time.

4.3. When will my participation in the study be over? Your participation in the study will be over once you complete the interview. The researcher may contact you within a few months following the interview to clarify any information you shared. Your response to any follow-up questions after the interview is completely voluntary.

5. INFORMATION ABOUT STUDY RISKS AND BENEFITS

5.1 What risks will I face by taking part in the study? What will the researchers do to protect me against these risks?

There are no known or expected risks to this study. Although unlikely, the only possible risk is a breach of confidentiality. The researcher will try to minimize these risks by maintaining the confidentiality of participant identity and responses.

You do not have to answer any questions you do not want to answer.

Because this study collects information about you, the primary risk of this research is a loss of confidentiality. See Section 8 of this document for more information on how the researcher will protect your confidentiality and privacy.

5.2 How could I benefit if I take part in this study? How could others benefit?

You will receive a gift card upon completion of the interview. Others may benefit from the knowledge and conclusions gained from this study.

6. ENDING THE STUDY

6. If I want to stop participating in the study, what should I do?

You are free to leave the study at any time. If you leave the study before it is finished, there will be no penalty to you. If you decide to leave the study before it is finished, please tell one of the persons listed in Section 9. "Contact Information". If you choose to tell the researcher why you are leaving the study, your reasons may be kept as part of the study record. The researcher will keep the information collected about you for the research unless you ask us to delete it from my records. If the researchers have already used your information in a research analysis it will not be possible to remove your information.

7. FINANCIAL INFORMATION

7. Will I be paid or given anything for taking part in this study? You will receive a gift card for completing the interview portion of this study. A \$10 Amazon gift card will be emailed to you.

8. PROTECTING AND SHARING RESEARCH INFORMATION

8.1 How will the researchers protect my information? All data will be de-identified to protect participant confidentiality. Participant identifying information, including names and school names, will not be disclosed to anyone other than the primary investigator.

Demographic information (race, gender, years of experience) will be stored separately from other interview responses. Data will be stored in password-protected files. Deidentification will occur approximately one month after the interviews are completed.

8.2 Who will have access to my research records?

There are reasons why information about you may be used or seen by the researcher or others during or after this study. Examples include:

- University, government officials, study sponsors or funders, auditors, and/or the Institutional Review Board (IRB) may need the information to make sure that the study is done in a safe and proper manner.

8.3 What will happen to the information collected in this study?

The information collected about you during the research and/or possibly for future research projects/study recordkeeping. Your name and other information that can directly identify you will be stored securely and separately from the research information collected from you. Interviews will be transcribed for analysis purposes but identifying information will be destroyed after the completion of the study.

The researcher may plan to contact you again as part of this project only if clarification is needed. You may choose to respond to any follow-up questions from the researcher but you are not required to respond after the interview.

The results of this study could be published in an article or presentation, but will not include any information that would let others know who you are, including your name and school name, and identifying information.

8.4 Will my information be used for future research or shared with others?

Your research information may be used or shared for future research studies. If your information is shared with other researchers, it will be de-identified, which means that it will not contain your name or other information that can directly identify you. This research may be similar to this study or completely different. You will not be asked for your additional informed consent for these studies.

9. CONTACT INFORMATION

Who can I contact about this study?

Please contact the researchers listed below to:

- Obtain more information about the study
- Ask a question about the study procedures
- Report an illness, injury, or other problem (you may also need to tell your regular doctors)
- Leave the study before it is finished
- Express a concern about the study

Principal Investigator: Lisa Journell
Email: lisa.journell@wright.edu
Phone: (937)631-0354

Email: yoko.miura@wright.edu
Phone: (937)775-3282

Faculty Advisor: Yoko Miura

If you have questions about your rights as a research participant or wish to obtain information, ask questions or discuss any concerns about this study with someone other than the researcher(s), please contact the following:

Wright State University
Institutional Review Board, Human Research Protection Program
University Hall 374
3640 Colonel Glenn Hwy
Dayton, OH 45435-0001
Telephone: 937-775-3974

10. YOUR CONSENT

Consent/Assent to Participate in the Research Study

By checking “yes” below, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You may keep a copy of this document for your records and I will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact me using the information in Section 9 provided above.

I understand what the study is about and my questions so far have been answered. I agree to take part in this study.

Please complete this section and sign and return to lisa.journell@wright.edu:

YES: _____

NAME: _____

SIGNATURE: _____

Appendix B

Quantitative Survey

Title: Organizational Support, Teacher Wellbeing, and Teacher Resilience

Hello! I'm a doctoral student at Wright State University and I'm conducting a research study on how school organizational support influences teacher well-being and resilience. I'm looking for teachers of grades 7-12 with at least 8 years of experience to complete a brief survey related to these concepts. To maintain your privacy, all survey responses will remain completely confidential and any identifying information will not be disclosed to anyone other than the researcher. Data will be stored for future research but identifying information will not be retained. The survey should take about 10-15 minutes to complete. Participation is completely voluntary. Upon completion of the survey, you will have the option to enter your name into a raffle for one of five \$50 Amazon gift cards. Your responses will be very meaningful to this research. Thank you for your time!

Lisa Journell, M.Ed.
Doctorate of Organizational Studies Program
Wright State University
lisa.journell@wright.edu
IRB # 07274

If you have questions about your rights as a research participant or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher, please contact the following: Wright State University Institutional Review Board, Human Research Protection Program, University Hall 374, 3640 Colonel Glenn Hwy Dayton, OH 45435-0001 Telephone: 937-775-3974

By completing this survey, you are consenting to participate in this study.

Yes, I would like to proceed. (1)
No, I would like to exit the survey. (2)

Q1 How many total years of teaching experience do you have?

0-7 years (1)
8-15 years (2)
16-23 years (3)
24-30 years (4)
31+ years (5)

Q2 What is your race?

White (1)
Black or African American (2)
American Indian or Alaska Native (3)
Asian (4)
Hispanic (5)
Multiracial (6)

Q3 What is your gender?

Male (1)

Female (2)

Transgender (3)

Non-binary / third gender (4)

Prefer not to say (5)

Q4 What grade level do you teach? (check all that apply)

7 (1)

8 (2)

9 (3)

10 (4)

11 (5)

12 (6)

None of the above (7)

Q5 What type of school best describes your current place of employment?

Urban (1)

Suburban (2)

Rural (3)

Career Tech/Vocational (4)

STEM (5)

Listed below and on the next several pages are statements that represent possible opinions that YOU may have about working at your school of employment. Please indicate the degree of your agreement or disagreement with each statement by a response that best represents your point of view about your school as an organization.

Q6 The organization values my contribution to its well-being.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q7 The organization fails to appreciate any extra effort from me.

Strongly disagree (6)

Disagree (5)

Somewhat disagree (4)

Somewhat agree (3)

Agree (2)

Strongly agree (1)

Q8 The organization would ignore any complaint from me.

Strongly disagree (6)

Disagree (5)

Somewhat disagree (4)

Somewhat agree (3)

Agree (2)

Strongly agree (1)

Q8 The organization really cares about my well-being.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q9 Even if I did the best job possible, the organization would fail to notice.

Strongly disagree (6)

Disagree (5)

Somewhat disagree (4)

Somewhat agree (3)

Agree (2)

Strongly agree (1)

Q10 The organization cares about my general satisfaction at work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q11 The organization shows very little concern for me.

Strongly disagree (6)

Disagree (5)

Somewhat disagree (4)

Somewhat agree (3)

Agree (2)

Strongly agree (1)

Q12 The organization takes pride in my accomplishments at work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q13 I feel joy in a typical workday.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q14 Overall, I feel enthusiastic about my work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q15 I love my job.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q16 I typically become absorbed while I am working on something that challenges my abilities.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (7)

Q17 I lose track of time while doing something I enjoy at work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q18 When I am working on something I enjoy, I forget everything else around me.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q19 I can receive support from coworkers if I need it.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q20 I feel appreciated by my coworkers.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q21 I trust my colleagues.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q22 My colleagues bring out my best self.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q23 My work is meaningful.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q24 I understand what makes my job meaningful.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q25 The work I do serves a greater purpose.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q26 I set goals that help me achieve my career aspirations.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q27 I typically accomplish what I set out to do in my job.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q28 I am generally satisfied with my performance at work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q29 I typically feel physically healthy.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q30 I am rarely sick.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q31 I can typically overcome sources of physical distress (e.g., insomnia, injuries, vision issues, etc.).

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q32 I feel in control of my physical health.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q33 I believe I can improve my job skills through hard work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q34 I believe my job will allow me to develop in the future.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q35 I have a bright future at my current work organization.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q36 My physical work environment (e.g., office space) allows me to focus on my work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q37 There is plenty of natural light in my workplace.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q38 I can conveniently access nature in my work environment (e.g., parks, oceans, mountains, etc.).

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q39 I am comfortable with my current income.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q40 I could lose several months of pay due to serious illness, and still have my economic security.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q41 In the event of a financial emergency, I have adequate savings.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q42 At school I can be flexible when situations change.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q43 I can quickly adapt to new situations at school.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q44 I am well organized in my school work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q45 I reflect on my teaching and learning to make future plans.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q46 When something goes wrong at school I don't take it too personally.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q47 After reflection, I can usually find the funny side of challenging school situations.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q48 When I feel upset or angry at school I can manage to stay calm.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q49 I balance my role as a teacher with other dimensions in my life.

Strongly disagree (1)

Disagree (2)

Neutral (3)

Agree (5)

Strongly agree (6)

Q50 I am generally optimistic at school.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q51 At school I focus on building my strengths more than focusing on my limitations.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q52 When I make mistakes at school I see these as learning opportunities.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q53 In my role as a teacher I set goals and work towards achieving them.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q54 I have realistic expectations of myself as a teacher.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q55 I believe that if I put my mind to something at school I can be successful.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q56 I am good at maintaining my motivation and enthusiasm when things get challenging at school.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q57 I enjoy learning when I am at work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q58 I like challenges in my work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q59 I am persistent in my work.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q60 I believe that I have control over my work life.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q61 It's important to me that I put in effort to do my job well.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q62 When I am unsure of something I seek help from colleagues.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q63 I am good at building relationships in new school environments.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q64 In my role as a teacher, I am a good communicator.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q65 In my work I can look at a situation a number of ways to find a solution.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q66 At work I can view situations from other people's perspectives.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q67 When I am at work I can generally resolve conflicts with others.

Strongly disagree (1)

Disagree (2)

Somewhat disagree (3)

Somewhat agree (4)

Agree (5)

Strongly agree (6)

Q68 Are you willing to be contacted for a follow-up interview? The interview would be conducted online and take approximately one hour. This option is completely voluntary. If yes, you will be asked to provide contact information. Your responses to this survey will remain completely confidential regardless of your answer to this question.

No (1)

Yes (2)

Q69 Thank you for being willing to help with a follow-up interview! Please provide your contact information below. You may or may not be contacted for a follow-up interview.

Q70 Name:

Q71 Preferred Email:

Q72 Phone Number:

Q73 Would you like to enter your name for the gift card drawing? Five names will be drawn at random to win one of five \$50 Amazon gift cards.

No thank you. (1)

Yes please! (2)

Appendix C

Interview Questions

1. Tell me about a typical day in your school and classroom. (C)
2. Can you describe what makes you feel supported in your school? (C)
3. Can you tell me about how support in your school helps you manage the challenges of being a teacher? (A)
 - a. Possible clarifying questions – Can you rephrase/elaborate? Can you tell me more?
 - b. Describe how this support (or lack of support) impacts you as a teacher. (A)
4. This study defines teacher resilience as a capacity, process, and outcome. Teacher resilience is unique to the profession and the setting for each teacher. Teacher resilience is seen as a dynamic mix of personal and contextual resources to manage the challenges of being a teacher and thrive as a teacher. Thinking of that definition of resilience, tell me what you do when you face challenges at school and what resources you use to overcome those challenges (A).
5. Can you tell me what things outside of school support help you be resilient as a teacher? (A) Alternatively, can you tell me about things outside of school that may be diminishing your resilience as a teacher?
6. Tell me what experiences make you feel accomplished as a teacher? (C/A)
7. What, if anything, is there about support from your school that influences those accomplishments? (C1)
8. Describe how your resilience as a teacher would change depending on the level of support at your school. (C1)

Framework for Phenomenological Interview Questions (Bevan, 2014):

Contextualization (C) – ask questions to consider context from which the experience hold meaning for the individual; ask participants to describe places, events, actions or activities which are part of the context of the experience

“Please describe to me about...”
“Tell me about how you came to be...”

Apprehending the Phenomenon (A) – questions direct the focus on the experience the researcher is trying to explore, explore experience in more detail with descriptive questions; use descriptive questions followed by structural questions (helps to avoid premature interpretations and/or bias from researcher); really draw out what participants mean by what they describe

“Tell me about a typical day...”
“Tell me what you do when...”
“Describe what you mean by...”

Clarifying the Phenomenon (Cl) – uses **imaginative variation** to hone in on *invariant* parts of the experience for individuals; adds consistency to data collection and improves dependability, trustworthiness, and credibility because it asks questions to ensure data collection remains grounded in participants’ experience and not the researchers’ interpretation; enhances the ability to describe structure of the experience that is context-bound from the perspective of the participant

“Describe how your experience would change if...”
“What, if anything, would you change about...”

Based on: Bevan, M. T. (2014). A method of phenomenological interviewing. *Qualitative health research*, 24(1), 136-144. <http://doi.10.1177/1049732313519710>

Appendix D

Qualitative Analysis Codebook

Name	Description	Files	References
Protective Factors	Overlapping code among the dimensions of teacher well-being and resilience including factors that help teachers overcome the challenges of the profession, thrive, be engaged, and feel satisfied with the profession. Includes personal and contextual protective factors.	10	229
Balance	Teachers describe a capacity to establish a sense of balance by setting boundaries between work and home life including the ability to effectively manage their time and compartmentalize negative events at school. Demonstrating the ability to behaviorally, mentally, and emotionally take a break from the everyday stresses of school.	9	39
Compartmentalization	Teachers describe an ability to “let things go” and compartmentalize in order to move on from negative events or challenging circumstances by setting boundaries and making time to recharge outside of school.	7	25
Time management	Teachers describe ways in which they adequately manage their time to fulfill their job responsibilities.	6	14
Health	Teachers describe the influence of mental health and/or physical (including physical exercise) on their sense of well-being and resilience as teachers.	5	7
Perspective	Teachers describe resources/skills they use to help them approach the challenges of the profession with a growth mindset and positive outlook.	7	36
Faith	Teachers describe the influence of religious faith and prayer in their overall sense of well-being and resilience as a teacher.	2	2

Name	Description	Files	References
Growth mindset	Teachers describe how they apply a positive and reflective outlook towards challenging circumstances to help them grow.	5	16
Previous Experiences	Teachers describe previous experiences that they draw upon to help them manage the challenges of being a teacher. Sometimes, these experiences were particularly challenging and are used to maintain a positive sense of perspective when approaching current circumstances that may be challenging.	7	15
Relationships	Teachers describe positive and supportive relationships with people inside and outside of school.	9	28
Sense of accomplishment	Teachers describe what gives them a sense of accomplishment.	10	75
Acknowledgment from others	Public acknowledgement of their teaching performance including awards, tokens of appreciation, and written or verbal praise from leaders, students, colleagues, or parents.	6	26
Student focused	Teachers describe being feeling accomplished based upon student growth, accomplishment, and learning within their subject area and overall personal development of students (lifelong skills).	10	49
Teaching skills	Teachers describe applying skills that help them be successful in achieving positive student outcomes.	7	29
Classroom Management	Teachers describe classroom management skills that help them deal with student behaviors. Successful classroom management skills include minimizing power struggles, treating students with respect, and handling behavior issues on their own without involving administrators.	6	12
Engaging instruction	Teachers describe how they work to create engaging lessons for their students to maintain student interest and facilitate learning. Also, teachers associate their own sense of	3	13

Name	Description	Files	References
	satisfaction and engagement in creating and delivering engaging instruction for their students.		
Student involvement	Teachers describe participating in extracurricular activities that focus on students.	3	4
Support	The extent to which teachers perceive they are valued by their school for their contributions and supported in terms of their well-being.	10	161
Colleagues	Teachers value relationships and collaboration with colleagues, a sense of teamwork, and the school possessing adequate staff to support the needs of students and teachers.	7	59
Adequate Staff	There is an adequate number of staff members to support the needs of students and teachers and to support effective school functioning as a whole.	2	6
Colleague support	Teachers describe receiving help and advice from colleagues and enjoying their company through camaraderie and commiseration.	7	27
Teamwork	Teachers describe the school staff as a well-functioning team that works together to meet the needs of students.	3	26
Recognition	Teachers describe recognition as feeling acknowledged by administrators, peers, students, or parents for their hard work and contributions, often in a public way. Recognition can include praise (verbal or written) or formal awards.	4	20
Resources	Teachers have ready access to adequate resources to fulfill their job responsibilities including materials, physical space, time, and curriculum.	4	15
Physical Space	Adequate physical classroom space to facilitate teaching and learning.	1	6
Time	Possessing adequate time during the school day to fulfill responsibilities of being a teacher.	4	9

Name	Description	Files	References
Supportive leaders	Leaders who are visibly present, in touch with the needs of teachers, support disciplinary issues, and instill a positive sense of school mission amongst staff.	8	45
Disciplinary support	Teachers have strong support from school leaders to help them effectively manage student behavior and discipline issues. They describe feeling like school leaders “have their backs” and will back them up when discipline issues arise in their classrooms or when they have to deal with parents regarding student discipline.	5	13
Positive mission of leader	School leader displays a positive and meaningful mission for the teachers and the school.	2	7
Presence of Administrators	When teachers visibly see their school administrators on a frequent and regular basis including presence in the hallways and stopping by their classrooms for informal visits to witness their instruction.	6	19
Responsive to needs		4	6
Treated as a Professional	Teachers describe a desire to be treated as professionals, meaning other people seek their professional knowledge and expertise and use their input to guide important decisions in the school. Professionalism also relates to perceiving a sense of trust in their expertise from administrators, peers, and parents.	8	22
Threats	Issues that threaten or take away from school support, teacher well-being, and/or teacher resilience.	10	265
Inflexibility	Teachers describe an unwillingness to adapt to new situations or potential changes at school which may be out of their own control or an inability to “turn off” thoughts or pressures of school outside of the school day.	2	5
Invisible	Teachers do not feel recognized for their contributions and abilities. They	3	19

Name	Description	Files	References
	feel invisible and hurt because they are not acknowledged for their work, especially by their school leaders and peers, and therefore may question their ability to be a competent teacher.		
Lack of colleague support	Teachers describe a lack of colleague support in colleagues who are overly negative or “toxic” to their sense of well-being as a teacher, or not having adequate staff in the building.	8	31
Inadequate staff	Teachers describe the impact of not having enough staff members in the building, especially in terms of the impact on being able to meet student needs or have enough help to complete their own job responsibilities.	6	14
Mental health	Teachers describe the stress or challenges associated with their own mental health issues or the mental health issues of students. Often associated with an increased need for mental health resources.	4	15
Mental health of students	Teachers describe how the mental health issues of students impacts learning and/or their ability to do their job.	4	11
Mental health of teachers	Teachers describe how their own mental health issues impact their ability to do their job.	1	4
Stressors at school	Teachers describe contextual factors that are significant sources of stress at school.	10	102
Bureaucracy	Teachers describe bureaucracy as issues related to the “red tape” that schools must enforce including state-mandated policies, assessments, and evaluations.	6	23
Juggling	Teachers describe the struggles they have with balancing all of their work responsibilities within the work day and having enough time to complete all the daily tasks of being a teacher.	5	14
Lack of resources	Teachers describe inadequate resources that affect their ability to do their job	7	37

Name	Description	Files	References
	including instructional materials, lack of time (for teaching, planning, grading, collaboration), lack of adequate staff, and inadequate financial compensation.		
Inadequate Financial compensation	Teachers are financially compensated for their time and contributions.	5	11
Lack of Materials	Inadequate physical materials and supplies to support instruction and student learning, including technology.	3	9
Lack of Time	Teachers feel they do not have enough time to accomplish all of their responsibilities or to collaborate with colleagues.	6	17
Overwhelming parent involvement	Feeling stressed when over-involved parents do not trust teachers and bypass communication by discussing problems with administrators instead of communicating directly with teachers.	1	3
Post-COVID	Teachers describe negative aftermath of COVID-19 pandemic in terms of aberrant student behavior, gaps in academic and social progress, increased use of cell phones, and associated mental health issues.	8	18
Student behavior	Frustrations with student behavior and not feeling supported by administration on disciplinary issues.	3	7
Stressors outside of school	Teachers describe significant sources of stress related to factors outside of school.	6	17
Family stress	Teachers describe stressors from their own family issues that impact their job including aging parents, needs of their children, or spouses/partners who struggle to relate to their role as a teacher.	5	7
Public Pressure	Teachers describe pressure from American politics that affect the identity and public role of being a teacher, including pressure from social media. They do not like the political debates involving the polarization of educational issues or the negative light	3	10

Name	Description	Files	References
	in which education/educators can be portrayed.		
Unsupportive leaders	Teachers describe ways in which they do not feel supported by their school leaders including not being treated like a professional, feeling invisible or unheard, and a sense of disconnect and absence of their leaders.	9	76
Disconnect	Teachers express a sense of disconnect between themselves and administrators or colleagues. In this disconnect, they describe a lack of trust, caring, and understanding.	5	25
Previous disconnect experiences	Disconnect experienced by teachers in the past.	1	3
Lack of presence	Teachers describe how school leaders are not “present” in their classroom or school on a regular basis. For example, the leaders do not regularly visit their classrooms or they do not see them in the hallways.	4	14
Not valued as professionals	Teachers describe experiences of not being valued as professionals because school leaders do not solicit or use their input and expertise, or are not provided with time to collaborate with peers. They might express their ideas but feel frustrated and even “unheard” when their input is not used in making important decisions for the school.	8	37