TEACHER BURNOUT: A CAUSAL-COMPARATIVE STUDY OF CLASSROOM ASSIGNMENT

by

Kimberly Dawn Matthews

Liberty University

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

The purpose of this quantitative, causal-comparative study was to determine if there is a difference in teacher burnout among the classroom assignments of general education, special education self-contained, and special education resource/inclusion teachers teaching in sixth through 12th grade. Burnout continues to plague the education system. There is a sense of urgency in understanding how to address burnout as the NEA has reported a one-year increase from 37% to 55% of teachers considering leaving the education field. The sample for the current study consists of 57 middle school and high school core content teachers in three categories: general education, special education self-contained, and special education resource/inclusion. Maslach's Burnout Inventory – Educator Survey (MBI-ES) and five questions from the Schools and Staffing Survey (SASS) 4A were administered through the online platform of Mind Garden. The MBI survey uses a 7-point frequency scale. The higher scores in the Emotional Exhaustion and Depersonalization scales indicate higher burnout; the Personal Accomplishment scale uses reverse coding of lower scores associated with higher burnout. Results from the MANOVA indicated significant differences in the vector of burnout scores across the three teacher groups. The follow-up ANOVA results indicated a statistically significant difference between general education and special education resource/inclusion teachers in the burnout subscale of Emotional Exhaustion. Special education teachers indicated high levels of emotional exhaustion, while general education teachers indicated moderate levels. In conclusion, there was a difference in the burnout dimension of emotional exhaustion between general education and special education resource/inclusion teachers. Recommendations for further research include elementary teachers, multiple surveys in a school year, a larger sample, and years of experience as a covariate.

Keywords: burnout, attrition, administrative support, classroom assignment

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Dedication

This dissertation is dedicated to all those who have supported me throughout my academic journey. First of all, I thank God, who provided peace and strength to persevere through this journey. To my family, who has always believed in me and encouraged me to pursue my dreams. In particular, I want to thank my husband, who supported, encouraged, and motivated me during the challenging moments and cheered me on in the exciting ones. To my three children, Aubry, Isaac, and Jaden, who have been my constant supporters and provided me with much-needed encouragement and affirmation. To my extended family, who continuously checked in on my progress and offered kind words and prayers. And to all those who have crossed my path and left a positive impact on my life, thank you for being a part of this journey. Your love, support, and encouragement have made this achievement possible.

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List of Abbreviations

Depersonalization (DP)

Emotional Exhaustion (EE)

Institutional Review Board (IRB)

Maslach's Burnout Inventory (MBI)

Maslach's Burnout Inventory – Educational Survey (MBI-ES)

National Education Association (NEA)

National Teacher and Principal Survey (NTPS)

Personal Accomplishment (PA)

Schools and Staffing Survey 4A (SASS 4A)

Statistical Package for the Social Sciences (SPSS)

United States Government Accountability Office (GAO)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative causal-comparative research is to study the difference in burnout among general education teachers, special education self-contained teachers, and special education resource/inclusion teachers using the three dimensions of the burnout inventory. Chapter One starts with background information on burnout in special and general education and an overview of the theoretical framework. Next, the problem statement, purpose, and significance of the research are presented. Finally, the research question, followed by essential definitions, is provided.

Background

A recent survey from the National Education Association (NEA) highlighted the problem of burnout, with 90% of teachers identifying burnout as a significant issue. Additionally, a staggering increase was reported from the NEA's August 2021 survey to the January 2022 survey from 37% to 55% of teachers who are more likely to abandon the education field, bringing urgency to the problem of burnout (Kuykendall, 2022). While education evolves to meet the unique needs of students in the classroom, teacher burnout lingers as a plague in the field. Educator burnout results in stress and attrition among special education teachers (Bettini et al., 2019; Cancio et al., 2018; Gilmour & Wehby, 2020; Hester et al., 2020) and brings about negative consequences affecting both teachers and students in education (Saloviita & Pakarinen, 2021; Van Droogenbrœck et al., 2021). Within burnout, negative attitudes toward others are highest in the first five years of teaching (Nuri & Tezer, 2018). Furthermore, 50% of special education teachers leave the field within the first five years of teaching (Billingsley, 2004). With the continuing problem of teacher burnout, research has acknowledged the contributing factors

of stress brought on by the recent COVID-19 pandemic (Bansak & Starr, 2021; Kim & Asbury, 2020; Kim et al., 2021).

The education field has historically been known to have high stress and burnout among teachers, with special education teachers identified as having the highest levels of burnout. In a literature review of a decade of literature, Billingsley (2004) found a chronic problem of stress, burnout, and attrition in special education. Workload, paperwork, and legal mandates have contributed to the stress and are problematic among educators (Bettini et al., 2019; Billingsley, 2004; Hester et al., 2020). Recent research has noted an increase in teachers relating stress to a lack of administration support (Bettini et al., 2019) and even recognized teachers' identification of administrators not understanding the special education field, often resulting in attrition (Hester et al., 2020). Due to the stress levels in education, teachers need to feel supported by the administration, which influences self-efficacy. Research regarding self-efficacy found low self-efficacy resulting from a lack of administration support (Langher et al., 2017). Stress has been associated with burnout in special education teachers, resulting in attrition (Hester et al., 2020). Pressley (2020) recently found that low self-efficacy was elevated while teaching during the pandemic. This finding could be linked to pre-pandemic educators working in self-contained classrooms; research has previously indicated self-contained classrooms as a work stressor (Cancio et al., 2018). In pre-pandemic research, Shah et al. (2020) found no significant difference in burnout between general and special education teachers, but Soini et al. (2019) did. Recently, educator burnout has shown itself to be an urgent issue in the education system; however, it has historically plagued education.

Historical Overview

Historical research acknowledged the problem of burnout in education; however, burnout

remains an obstacle with increasing expectations in the special and general education fields. A synthesis of research from 1973 to 2013 discovered that special education teacher burnout is associated with confusing role expectations, role conflict, and lack of administration support (Brunsting et al., 2014). Furthermore, educator burnout influences student relationships and academics (Irvin et al., 2013; Ruble & McGrew, 2013). Educators make a difference in students' lives and note the difficulty of making a difference when experiencing burnout (Richards et al., 2018). Furthermore, teachers experiencing burnout have trouble building appropriate relationships with their students (Hester et al., 2020; Soini et al., 2019), which may influence student academic performance due to a lower quality of teaching caused by stress (Hester et al., 2020; Kim & Asbury, 2020; Ruble & McGrew, 2013).

While teachers historically have struggled with burnout, additional stressors were heightened by the COVID-19 pandemic. Teachers had to adapt to a new way of teaching and communicating with students. Pandemic instruction included the addition of online platforms with synchronous, asynchronous (Bansak & Starr, 2021; Trust & Whalen, 2020), and hybrid teaching (Pressley & Ha, 2022). The rapid changes to the teaching field resulted in teachers feeling overwhelmed and stressed (Iivari et al., 2020; Trust & Whalen, 2020) and with low self-efficacy (Pressley & Ha, 2022). While these recent studies have not explicitly addressed the special education field, educators generally perceived heightened stress during the pandemic (Bansak & Starr, 2021; Kim & Asbury, 2020; Pressley, 2021).

Society-at-Large

Relationships among teachers, students, and families take a toll due to teacher burnout, ultimately influencing the school climate and community relationships. Emotional exhaustion, a dimension of burnout, is defined as a person's state in which they may feel they have nothing left

to give (Maslach & Jackson, 1981; Maslach et al., 2018) and can be perceived as a response to stress (Maslach & Leiter, 2016). As such, it affects relationships with peers, students, parents, and the community. Another area influenced by high levels of burnout is the effect on the teacher's family. Although many teachers reported the negative effect of burnout on their families, teachers with 15-plus years of experience report higher levels of family connectedness (Nuri & Tezer, 2018). When emotional exhaustion and disruption of family balance are present, teachers are not as effective in teaching academics (Hester et al., 2020; Nuri & Tezer, 2018) or building interpersonal relationships with students (Pavlidou & Alevriadou, 2020; Soini et al., 2019).

In addition to the relational and community impact, the school culture and administration are affected when teachers experience burnout, which results in attrition (Gilmour & Wehby, 2020; Richards et al., 2018). Billingsley (2004) defines attrition as leaving the special education field to teach in general education, changing schools, or leaving the field of education. A teacher shortage was reported in the 1990s and early 2000s, which led to an approach in special education of training and supporting teachers to reduce burnout (Brunsting et al., 2014). In a recent study, teachers who had intentions of leaving education also had increased characteristics of burnout (Räsänen et al., 2022). Post-pandemic research supports an increase of teachers with intentions to leave education from one in six teachers pre-pandemic to one in four teachers during the 2020–2021 school year (Steiner & Woo, 2021). A survey in March 2020 indicated that 74.2% of teachers plan to work until retirement; one year later, in March 2021, that number decreased to 69%; 42% of teachers reported considering leaving education within the past year (Zamarro et al., 2021). Teacher attrition and burnout can be positively affected when supportive school cultures work to develop higher levels of teacher self-efficacy (Ford et al., 2019). Burnout

is associated with high workloads (Cancio et al., 2018; Hester et al., 2020) and poor administrative support (Bettini et al., 2019; Ford et al., 2019; Hester et al., 2020), which leads to educators leaving the field. Administrative support of teachers indirectly affects the students reaching their educational goals and affects the teachers' families, leading to special education teacher attrition (Brunsting et al., 2014) and general education turnover (Ford et al., 2019; Richards et al., 2018).

Theoretical Framework

Theoretically, Maslach's (2002) burnout theory lays the foundation for understanding the stress endured by many special and general education teachers. Maslach's burnout theory is often associated with service-oriented jobs and identifies education as one of the occupations frequently affected by burnout (Maslach, 2002; Maslach et al., 1996; Maslach & Leiter, 2016; Park & Shin, 2020; Soini et al., 2019). Teachers desire to meet the needs of their students, doing whatever it may take. There are three dimensions in the burnout theory: emotional exhaustion, negative feelings of depersonalization, and a self-perception of ineffectiveness (Maslach, 2002; Maslach et al., 1996; Maslach & Leiter, 2016). Maslach's burnout theory provides dimensions and clarity when understanding burnout among special education and general education educators.

Another theory that adds to the study of burnout is Bandura's self-efficacy theory which acknowledges that people's self-efficacy influences their ability to perform positively and negatively (Bandura, 1977, 2012). The self-efficacy theory identifies four dimensions: "performance accomplishments, vicarious experience, verbal persuasion, and physiological states" (Bandura, 1977, p. 191), influencing internal and external perceptions of oneself. Low self-efficacy among teachers relates to higher levels of burnout (Hester et al., 2020; Park & Shin,

2020; Soini et al., 2019) and attrition (Hester et al., 2020). In self-efficacy, the strength of a person's belief in their ability or usefulness affects their coping skills (Bandura, 1977). Special education and general education are service-oriented professions with high demands and stress, and the ability to cope is essential. Furthermore, the aptitude to cope and cultivate self-efficacy affects the period a person continues in that activity (Bandura, 1977). In educator burnout, self-efficacy affects the teacher's ability to cope; teachers with more experience show higher levels of self-efficacy (Kim & Burić, 2020).

In conclusion, education has historically been connected with high burnout, stress, and attrition levels. Some factors influencing the field are heavy workload, paperwork, lack of administrative support, low self-efficacy, and emotional exhaustion. With the high levels of exhaustion, teachers have been affected by emotional and health problems and felt stress levels affect their families. However, teachers' burnout affects students through difficulties in building interpersonal relationships between teachers and students and ineffective teaching. Theoretically, Maslach's burnout theory (Maslach et al., 1996) and Bandura's self-efficacy theory (Bandura, 1977) lay a foundational framework to understand and interpret the findings in burnout levels among teachers.

Problem Statement

Research has attested that teacher burnout influences education (Bettini et al., 2019; Jovanović et al., 2019; Oberle et al., 2020; Park & Shin, 2020; Skaalvik & Skaalvik, 2021). The teaching field has been deemed a service-oriented field and is linked with burnout, including special educators (Maslach, 2002; Maslach et al., 1996; Maslach & Leiter, 2016; Park & Shin, 2020; Soini et al., 2019) and general educators (Akin, 2019; Van Droogenbrœck et al., 2021; Zhu et al., 2018). There have been multiple variables that have been known to affect the level of

stress and burnout in special education, including emotional exhaustion (Bettini et al., 2019; Jovanović et al., 2019), low self-efficacy (Hester et al., 2020; Park & Shin, 2020; Soini et al., 2019), lack of administration support (Billingsley, 2004; Hester et al., 2020; Langher et al., 2017), and workload (Billingsley, 2004; Cancio et al., 2018; Gilmour & Wehby, 2020; Hester et al., 2020). The literature has addressed burnout among teachers in special education and general education in isolation; however, the literature has not yet addressed the difference in burnout among general educators, special education self-contained educators, and special education resource/inclusion teachers.

Literature has addressed burnout differences between special education self-contained and special education resource/inclusion teachers (Cancio et al., 2018) as well as between general education and special education teachers (Saloviita & Pakarinen, 2021; Shah et al., 2020; Soini et al., 2019). Burnout plagues the education system; previous literature identifies burnout in special and general education. The problem is that burnout is prevalent among educators. The gap in the literature has not fully addressed burnout differences among general education, special education self-contained teachers, and special education resource/inclusion teachers.

Purpose Statement

The purpose of this quantitative, causal-comparative study was to determine if there is a difference in teacher burnout among the classroom assignments of general education, special education self-contained, and special education resource/inclusion teachers teaching in sixth through 12th grade. The independent variable in the current study was classroom location, with three groups representing the classroom assignments of general education, special education self-contained teachers, and special education resource inclusion teachers. Special education self-contained teachers exclusively teach in a self-contained environment with significant student

needs. They tend to teach with explicit, direct instruction and data-driven decisions to guide individualized goals (Gilmour & Henry, 2020). Special education resource/inclusion teachers are identified as not self-contained (Cancio et al., 2018) and teach resource core content classes that include students who follow the typical school day schedule but require core content aligned with grade-level standards to remediate deficits. In addition, these teachers may teach inclusion, which may vary in co-teaching strategies, supporting students with special needs in a general education classroom. The final group in the independent variable is the general education classroom, defined as tending to have a more constructivist approach to guiding and assisting students (Gilmour & Henry, 2020).

The dependent variable is a linear combination of MBI's three subscale scores measured on a continuous scale (Maslach et al., 2018). Maslach defines burnout as a psychological condition resulting from extended work environment stressors leading to perceptions of exhaustion, depersonalization, and ineffectiveness (Maslach & Jackson, 1981). MBI measures burnout using three dimensions: emotional exhaustion, personal accomplishment, and depersonalization (Maslach & Jackson, 1981). Emotional exhaustion is a person's depleted emotional resources; they have nothing left to give (Maslach et al., 1996). The second subscale is depersonalization, which is the negative or cynical feelings toward others (Maslach et al., 1996). The final subscale is personal accomplishment, a negative self-perception or sense of lack of accomplishment (Maslach et al., 1996). The covariate is the teacher's perceptions of administrative support. House (1981) describes administrative support as aspects that influence attrition and level of contentment. Perceptions of administrative support were measured as a continuous variable using five questions taken from SASS 4A using a 4-point Likert-type scale (Tickle et al., 2011).

The population was comprised of teachers in a large suburban school district in Texas. The district's 2020–2021 TAPR data indicated a teacher population of 1,257 regular education teachers and 191 special education teachers. The participants in the current study included special education and general education teachers who met the requirements of teaching in sixth through 12th grade special education self-contained, special education resource/inclusion, and general education core content, with 20 teachers in each category.

Significance of the Study

Burnout plagues the education world, and even with the evolving educational changes, burnout affects teachers. In addition, the pandemic in the spring of 2020 brought about unprecedented changes to the world of education in which educators who were previously struggling with burnout, stress, and attrition were then tasked with the significant challenge of educating students during and post-pandemic. These new challenges heightened the sense of urgency to research burnout among educators. Theoretical significance includes Maslach's theory of burnout and Bandura's theory of self-efficacy. Maslach's theory of burnout provides a construct of three dimensions to understand educator burnout (Maslach & Jackson, 1981). Furthermore, Bandura's self-efficacy connects low self-efficacy with teacher burnout (Bandura, 1977). The current study adds to the theoretical base of burnout and self-efficacy by understanding burnout among the teacher groups.

In a review of the literature, numerous empirical studies focused on stress, burnout, and attrition among special education teachers (Bettini et al., 2019; Cancio et al., 2018; Gilmour & Wehby, 2020; Hester et al., 2020; Park & Shin, 2020) and among general education teachers (Akin, 2019; Van Droogenbrœck et al., 2021; Zhu et al., 2018). There are a few studies that research the difference between the classroom settings of general education and special

education (Saloviita & Pakarinen, 2021; Shah et al., 2020; Soini et al., 2019) and between self-contained special education teachers and resource/inclusion special education teachers (Cancio et al., 2018). Further research is needed to examine the difference in teacher burnout and the three dimensions identified by Maslach's burnout theory of emotional exhaustion, depersonalization, and feelings of ineffectiveness (Maslach & Jackson, 1981) among the three classroom locations of general education, special education self-contained, and special education resource/inclusion. Teacher burnout is an area in need of improvement that influences special education (Bettini et al., 2019; Cancio et al., 2018) and general education teachers (Akin, 2019; Van Droogenbrœck et al., 2021; Zhu et al., 2018), ultimately affecting students (Hester et al., 2020; Nuri & Tezer, 2018) and the school culture (Brunsting et al., 2014; Gilmour & Wehby, 2020). Burnout burdens teachers in general education, special education resource/inclusion, and special education self-contained classroom settings.

Finally, the practical significance is that administrators and school districts understand how burnout influences teacher groups. The problem of teacher burnout influences teachers, students, and schools. While new research addresses the general burnout effect in education (Iivari et al., 2020; Trust & Whalen, 2020), the difference in burnout among classroom assignments in general education and special education needs to be researched. Understanding the differences in burnout among the teacher groups could provide administrators with ideas of how to support teacher groups in different classroom assignments to prevent burnout. For example, if general education teachers have lower personal accomplishment scores than other teacher groups, administrators could respond to this by providing support and resources to improve a sense of personal accomplishment among the general education teachers. The current study further benefits the education field in understanding the amount of burnout in the different

classroom assignments of general education, special education self-contained, and special education resource/inclusion. The study could allow further research on alleviating stress in special and general education settings and addressing the different needs in each classroom assignment.

Research Question

RQ1: Is there a difference among general education, special education self-contained, and special education resource/inclusion teachers' emotional exhaustion, depersonalization, and personal accomplishment burnout?

Definitions

1. *Attrition* – Leaving the special education position to move to general education, a special education position in another school, or leaving the field of education (Billingsley, 2004).
2. *Burnout* – A three-dimensional approach that includes overwhelming exhaustion, cynicism or depersonalization, and a sense of ineffectiveness in people in service industries (Maslach et al., 1996).
3. *Depersonalization (DP)* – Educators become unfeeling and impersonal towards students, exhibit negative attitudes, or are cold and distant (Maslach et al., 2018).
4. *Emotional Exhaustion (EE)* – The fatigue and tiredness that develops when energies have been depleted. A feeling of being unable to give any more in their teaching position (Maslach et al., 2018).
5. *Maslach's Burnout Inventory (MBI)* – A survey to measure burnout in the three dimensions of emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al., 1996).

6. *Maslach's Burnout Inventory Educators Survey (MBI-ES)* – An inventory survey version of Maslach's burnout used for teachers, administrators, staff, and volunteers in any educational setting (Maslach et al., 2018).
7. *Personal Accomplishment (PA)* – The feeling of proficiency and accomplishment in one's ability to teach students; when teachers feel they are furthering the growth of students (Maslach et al., 2018).
8. *Self-efficacy* – One's beliefs in oneself affect one's outward performance negatively or positively (Bandura, 1977).

CHAPTER TWO: LITERATURE REVIEW

Overview

A systematic review of the literature was conducted to explore the implications of burnout for special education teachers and general education teachers. The current literature has been reviewed and is discussed in this chapter. The first section expands on the relevant theories, including Maslach's burnout and Bandura's self-efficacy. Next, a synthesis of the literature is presented regarding special education and general education teacher burnout, with a literature review on emotional exhaustion, depersonalization, and personal accomplishment. Lastly, recent literature surrounding the influence of burnout in education is discussed. In conclusion, a gap in the literature is identified to present a viable need for the current study.

Theoretical Framework

Two theories frame the current study. First, Maslach's theory of burnout is used to understand teachers' burnout in emotional exhaustion, depersonalization, and personal accomplishment (Maslach & Jackson, 1981). Second, Bandura's self-efficacy theory is used to understand teachers' self-expectations and coping abilities (Bandura, 1977). Maslach's burnout theory and Bandura's self-efficacy theory connect teacher burnout by defining burnout and stress through the construct of a three-dimensional approach in which the two theories overlap. The following sections explain how these theories frame teacher burnout.

Maslach's Theory of Burnout

Burnout was initially an area of social concern, with early research as exploratory and pragmatically shaped, but it was later researched, resulting in the academic theory of burnout (Maslach & Jackson, 1981; Schaufeli et al., 1993). Maslach developed the burnout theory in conjunction with creating MBI, a tool to measure burnout through a three-dimensional approach

(Maslach & Jackson, 1981; Maslach et al., 2018). Early research on burnout emphasized that stress from work and physical responses were associated with depression (Maslach & Leiter, 2016). While burnout was previously related to emotional exhaustion, Maslach brought about the three-dimensional approach to burnout theory, assessing burnout in the framework of interpersonal and self-perception (Maslach & Leiter, 2016). The three dimensions associated with Maslach's burnout theory are emotional exhaustion, depersonalization, and low self-efficacy (Maslach, 2002; Maslach & Jackson, 1981; Maslach et al., 1996, 2018; Maslach & Leiter, 2016; Maslach et al., 2001). Maslach's theory of burnout defines burnout as a job-related syndrome involving stressful interpersonal interactions over time (Maslach, 2002; Maslach & Jackson, 1981; Maslach et al., 1996, 2018; Maslach & Leiter, 2016; Maslach et al., 2001). The pressures and expectations in education often lead to burnout (Maslach et al., 2018), leading to teacher attrition in the teaching field (Maslach et al., 2018; Maslach & Leiter, 2016).

Maslach's burnout theory identifies emotional exhaustion as an area where a person feels as though they have nothing left to give (Maslach & Jackson, 1981; Maslach et al., 2018) and is often viewed as an immediate response when feeling stressed (Maslach & Leiter, 2016). Mental and physical health variables are associated with burnout's emotional exhaustion dimension (Leiter et al., 2014; Maslach & Jackson, 1981; Maslach & Leiter, 2016). When emotionally exhausted, someone may exhibit physical and health symptoms, mental disorders, and drug use (Maslach et al., 2018; Maslach & Leiter, 2016).

Depersonalization, which Maslach formerly identified as cynicism, is the dimension that directly affects job performance and satisfaction (Maslach et al., 2018; Maslach & Leiter, 2016) and is the stress associated with a person's relationships (Maslach et al., 1996). A detachment or poor attitude may form due to burnout on the job, resulting in irritability or withdrawal (Maslach

& Jackson, 1981; Maslach & Leiter, 2016) and is a fallout of emotional exhaustion (Maslach & Leiter, 2016). Maslach et al. (2018), explicitly referring to the teaching field, relate to depersonalization as when teachers may use demeaning name-calling of students and even barricade themselves behind the desk as a form of withdrawal.

Personal accomplishment or self-efficacy is how a person perceives their effectiveness in their job (Maslach & Jackson, 1981; Maslach et al., 2018; Maslach & Leiter, 2016). Maslach et al. (2018) identified personal accomplishment as critical for educators as the role entails helping students grow both academically and in interpersonal skills. Personal accomplishment or lack of personal accomplishment is the inefficacy of a person's productivity and inability to cope. While initially referred to as personal accomplishment, this dimension has been recently referred to as professional efficacy to encompass both the social and non-social aspects of effectiveness (Maslach & Leiter, 2016). The Maslach Burnout Inventory – General Survey uses the terminology of Professional Efficacy; however, the Educatory Survey continues to use the term Personal Accomplishment, allowing the survey to assess an educator's perceived proficiency and success in educating students (Maslach et al., 2018).

Bandura's Theory of Self-Efficacy

Bandura's self-efficacy theory falls under Bandura's social cognitive theory. Furthermore, as noted within the self-efficacy theory, peoples' belief in themselves affects their outward performances, including goals, expectations, and assigning results as positive or negative (Bandura, 1977, 2012). Bandura's (1977) self-efficacy theory includes four dimensions: "performance accomplishments, vicarious experience, verbal persuasion, and physiological states" (p.191). Self-efficacy influences motivation and the actions resulting from the motivations (Bandura, 1977, 2012), which can predict the work manageability of teachers. Self-

efficacy is a person's expectation within a personal context and determines the ability to initiate coping mechanisms (Bandura, 1977).

Self-efficacy involves a person's inspiration and grit, supporting a person's accomplishments or lack of success. Within the self-efficacy theory, four areas define and develop a person's self-efficacy (Bandura, 2012). The first is resiliency, which is the ability to learn to overcome and capitalize on challenges and failures. Another area is the social modeling of observing others' successes from someone with similar characteristics to increase positive self-efficacy. Next is social persuasion, in which people are convinced to have self-confidence. The final area of self-efficacy is resolve, observed through evaluating successes and not comparing one's success to others. Bandura's self-efficacy introduces four areas that determine a person's positive or negative self-efficacy.

Conclusions

Burnout and self-efficacy are observed in the education field as affecting the stress and attrition of teachers (Maslach et al., 2018; Maslach & Leiter, 2016). Maslach's burnout theory adopts the three-dimensional approach, which allows for a complete understanding of the levels of burnout and stress observed in studies and research regarding teachers (Maslach, 2002; Maslach & Jackson, 1981; Maslach et al., 1996, 2018; Maslach & Leiter, 2016). Furthermore, Bandura's (1977) self-efficacy theory brings perspective to understanding teachers' stress. Both theories address personal accomplishment, mastery of a skill (Bandura, 1977), and feelings of success or accomplishment (Maslach, 2002; Maslach & Jackson, 1981). While the self-efficacy theory addresses resiliency and overcoming obstacles through perseverance (Bandura, 2012), Maslach and Leiter's (2016) burnout theory addresses the detachment of cynical feelings that result from emotional exhaustion. The interpersonal aspect of these two theories concerning the

education field is another similar finding. With the prevalence of burnout among teachers, there may come a sense of depersonalization (Maslach et al., 2018; Maslach & Leiter, 2016), formerly known as cynicism, which assesses difficulty building relationships with students, detachment, and ill-temper (Maslach & Leiter, 2016). Self-efficacy, however, relies on interpersonal relationships of social modeling and positive feedback from others (Bandura, 2012; Maslach et al., 2018). Maslach's burnout theory and Bandura's self-efficacy theory support identifying a relationship between teaching and burnout levels for special education and general education teachers by identifying burnout's specific dimensions. The current research could advance the theory of burnout and self-efficacy in education by understanding burnout differences among general and special education educators.

Related Literature

Related literature on burnout frames the current study of understanding burnout among general and special education teacher groups. The context of the three dimensions lays the foundation of the organization of understanding burnout (Maslach & Jackson, 1981). Next, research provides an understanding of how burnout influences teachers and students. Third, the pandemic brought about increased awareness of burnout and an increase in teachers considering leaving the education field (Steiner & Woo, 2021). Finally, related literature regarding classroom location and administration support is discussed.

Significance of Burnout in Education

Burnout in education is a product of the ongoing stress experienced by teachers and is characterized by a three-dimensional approach incorporating emotional exhaustion, low self-efficacy, and depersonalization (Maslach & Jackson, 1981). Burnout is an issue that affects teachers and can lead to decreased student academic outcomes, diminished relationships with

peers and students, and health problems among teachers. The teaching field is arduous, with 94% of teachers conveying high stress levels in a recent study of teacher stress and coping abilities (Herman et al., 2020). The National Education Association's (NEA's) recent survey indicated that 90% of teachers view burnout as problematic (Kuykendall, 2022).

Organization and Context of Burnout in Education

MBI has been widely used to study burnout in education (Aloe et al., 2014), leading to the organization of burnout in the categories of emotional exhaustion, depersonalization, and self-efficacy. Research has focused on three dimensions of burnout in education, allowing for a literature review to understand the specific categories of burnout in education. The World Health Organization identifies burnout as three-dimensional workplace stress, including exhaustion, cynicism, and diminished personal efficacy (World Health Organization, 2019). The field of education focuses on the well-being of others, a characteristic that falls into a service field often identified with high levels of burnout (Maslach et al., 2018). Education is included as an occupation with recognition of placing other people's needs first, heavy workloads, and a willingness to do whatever it takes to meet the needs of the students in the care of the teachers (Maslach, 2002; Maslach et al., 1996, 2018; Maslach & Leiter, 2016; Park & Shin, 2020; Soini et al., 2019). While identifying Maslach's definition, Hester et al. (2020) describe the risks entangled in education due to burnout, including stress, health, and dissatisfaction. Park and Shin (2020) have a similar description yet deliver details relating burnout to relationships with stress over a long period, resulting in undesirable behaviors related to stress and exhaustion. Burnout includes intrinsic feelings of emotional exhaustion and depersonalization as relationships or responses to other people (Langher et al., 2017; Maslach et al., 2018) or the students, co-teachers, and administration. Special education burnout has been purposely researched to

understand the detriment it causes to teachers, schools, and students (Oberle et al., 2020; Richards et al., 2018). Awareness of teacher burnout is essential as current research has allowed us to anticipate possible burnout levels in the future (Kim & Burić, 2020) and could lead to proactive attempts to alleviate teacher burnout. The following is a literature review of the construct of the three burnout dimensions among educators.

Emotional Exhaustion

The emotional exhaustion dimension is when the energies of teachers are exhausted, and they experience feelings of weariness. Emotional exhaustion has been considered distressing in teaching (Maslach et al., 2018). It has been identified as a factor of teacher burnout that, compared to a previous study, has persisted and increased (Kuok & Lam, 2018). Among educators, emotional exhaustion has been identified as being depleted of all emotional energy (Bettini et al., 2019; Maslach et al., 2018), the state in which the body reacts to ongoing stress (Jovanović et al., 2019), and having a depressed mood (Skaalvik & Skaalvik, 2021). The steady state of stress leads to burnout and emotional exhaustion among special educators, eventually leading to attrition (Bettini et al., 2019; Maslach et al., 2018).

Emotional exhaustion has been related to personality traits such as low levels of assertiveness (Jovanović et al., 2019) and work obsession (Shah et al., 2020). Teachers who have difficulty being bold and decisive (Jovanović et al., 2019) and who find it challenging not to let their work be all-consuming (Nuri & Tezer, 2018) have higher chances of struggling with emotional exhaustion. In addition, Nuri and Tezer's (2018) research indicated a negative relationship between an educator's connected home life and emotional exhaustion. Teachers need to be supported in promoting healthy relationships outside of the workday in the special education field. A study using MBI indicated that emotional exhaustion was related to a lack of

administrative support and higher emotional exhaustion among female teachers teaching in a low socioeconomic school (Langher et al., 2017). In summary, emotional exhaustion encompasses an educator's workload experiences, administration support, personality traits, and support, which weigh on teachers' emotional exhaustion levels.

Depersonalization

Depersonalization among educators is the unsympathetic and detached feelings toward students, which may result in name-calling, retreating, and insolence (Maslach et al., 2018). Depersonalization can sway teachers' negative mindsets, indifference, and thoughtlessness, influencing students and academics. High levels of depersonalization, detachment, and depression can result and are interrelated to dimensions of burnout (Montoya et al., 2021). Depersonalization is a complex problem to solve and consider; however, Oliveira et al. (2021) found that the influence of social and emotional support provided to teachers did not make a statistically significant impression on depersonalization. Other areas that did not influence teachers' perception of depersonalization were income, years of experience, and degree type (Yang et al., 2022).

However, various influences have shaped depersonalization in the academic setting, and when depersonalization was present, they were found to have a negative relationship with burnout. A positive school climate at the school level was found to weigh on depersonalization, which alleviated teachers' perceptions of depersonalization (Yang et al., 2022). Another influencer of depersonalization is the presence of student misbehavior in the classroom; however, this was found to be reconciled with positive relationships and affirmative relational self-efficacy (Simöes & Calheiros, 2019). Depersonalization in education is optimistically influenced through relationships and school culture; however, it can disrupt students and their

academic performance when not positively influenced.

Personal Accomplishment

Personal accomplishment, additionally recognized as professional efficacy, is a teacher's perception of their positive productivity, which influences educators, who typically enter the profession to benefit students (Maslach et al., 2018). Teachers experiencing thoughts of burnout affect their perceptions of their personal accomplishments (Hester et al., 2020; Maslach et al., 2018; Park & Shin, 2020; Soini et al., 2019). Park and Shin's (2020) meta-analysis found a link between self-efficacy and increased feelings of personal accomplishment, highlighting a connection between burnout and self-efficacy. Self-efficacy and personal accomplishment align with Maslach's burnout dimension of personal accomplishment. In turn, teachers who indicated elevated levels of personal accomplishment had an improved self-perception of their classroom management skills (Aloe et al., 2014); additionally, the interpersonal function of self-efficacy was identified as valuable in teacher–student relationships (van der Want et al., 2019). Soini et al. (2019) presumed self-efficacy to be interconnected to exhaustion, but the nature of their research (a five-year follow-up) found a relationship between low self-efficacy and inadequate relationships. Coupled with support from the administration, teachers experienced increased feelings of self-efficacy connected to personal accomplishment (Langher et al., 2017). In contrast, Öztürk et al. (2021) found no relationship between an educational culture that emphasizes teacher success and a teacher's perception of personal accomplishment. Due to the pressures, demands (Arvidsson et al., 2019), and perceived lack of support (Ford et al., 2019; Öztürk et al., 2021), teachers may not feel as though they are doing a sufficient job, leading to low self-efficacy.

Furthermore, personal accomplishment has been linked to teacher attrition, a concern in

education. In an open-ended teacher survey, Hester et al. (2020) found a link between low self-efficacy and attrition of special education teachers. Teachers who felt they were failing were likelier to report leaving the field (Bettini et al., 2019; Skaalvik & Skaalvik, 2021). While studies have shown stress leading to low personal accomplishment as a contributor to burnout (Langher et al., 2017; Park & Shin, 2020), Bettini et al. (2019) reported that stress was not a predictor of teacher attrition, and stress could be motivating for some teachers and not affecting self-efficacy. Likewise, Billingsley (2004) did not find a connection between self-efficacy and attrition. Personal accomplishment contributes to teacher burnout and intentions to leave the field of special education, although some research does not indicate that personal accomplishment leads to attrition.

Research has focused chiefly on correlational studies between burnout and self-efficacy, but Kim and Burić (2020) used autoregressive structural equation modeling to test the temporal order. They found that burnout predicts future self-efficacy among teachers. However, other factors have influenced a teacher's perception of personal accomplishment, including years of experience (Camacho et al., 2021) and self-coping skills (Camacho et al., 2021; Dexter & Wall, 2021; Herman et al., 2020). Camacho et al. (2021) suggested the relationship between years of experience influencing the positive outlook in teaching, decreasing burnout, and increasing personal accomplishment. Self-coping skills—the ability and assurance to approach negative mindsets with coping strategies—have been shown to predict a teacher's perception of positive self-efficacy with suggestions to provide mental health professional support for teachers (Camacho et al., 2021; Herman et al., 2020). A teacher's ability to self-reflect has positively helped the teacher's sense of personal accomplishment, slowing the progress of burnout in teachers (Dexter & Wall, 2021). Similar to self-reflection, interpersonal identity principles

influence the instructional piece of self-efficacy (van der Want et al., 2019). While studies have indicated personal accomplishment as a variable that many factors may affect, the research shows that one's perception of personal accomplishment can lead to burnout, ultimately influencing the classroom.

Summary of Three Dimensions

Using the three-dimensional approach to burnout defined by Maslach assists in understanding the full scope of burnout's effect among educators in special and general education. Emotional exhaustion, depersonalization, and personal accomplishment are prevalent in education. Further research could allow for an understanding of how the experiences of teachers in the categories of general education, special education resource/inclusion, and special education self-contained influence the levels of burnout as defined by emotional exhaustion, depersonalization, and personal accomplishment to allow administrators to gain understandings in teacher support based on the classroom assignment.

The Influence of Burnout in Academics and Education

Burnout influences many areas of education. First, teacher burnout influences the students, both the academic and social–emotional needs of students (Irvin et al., 2013). Next, increased burnout can affect teacher relationships (Pavlidou et al., 2020). Third, burnout affects attrition in the education field (Ford et al., 2019). Moreover, burnout influences teachers' well-being and health (Hester et al., 2020).

Influence on Students

Education involves academic and social growth; however, a connection exists between teacher burnout and the influence on students, whether teacher–student relationships or student educational outcomes (Herman et al., 2020; Montoya et al., 2021; Oberle et al., 2020). The

connection to student growth should lead to great concern and the need to understand further how to address burnout. A multilevel analysis indicated a relationship between student perception of teacher burnout and teachers' burnout ratings on the Maslach Burnout Inventory. To measure students' perceptions of their teachers, the research used several measures, including the Students Perceptions of Teacher Social-emotional Competence Scale (TSEC), Perceptions of Autonomy and Influence Scale, and Self-Description Questionnaire; to measure burnout, they used MBI. The research found that teacher-reported elevated levels of burnout predicted students' ratings of the teacher's social–emotional well-being (Oberle et al., 2020). Developing healthy relationships with the students in their classroom is difficult while teachers are experiencing burnout (Hester et al., 2020; Saloviita & Pakarinen, 2021; Soini et al., 2019). Teachers who communicate authoritatively and clearly experience less burnout (Jovanović et al., 2019), suggesting a need to provide training and mentors in classroom communication skills. Burnout among educators influences student performance due to lower quality of teaching and can shape teacher–student relationships, affecting education and causing decreased academic performance (Herman et al., 2020; Hester et al., 2020; Montoya et al., 2021) and lower student motivation (Madigan & Kim, 2021).

Interpersonal relationships between teachers and students weigh on students' emotional capabilities in the classroom. Amid relationships between teachers' stress and coping abilities, while noting teachers with low coping skills, teachers were more likely to have difficulty with classroom management and student relationships, ultimately resulting in increased depressive symptoms in students (Herman et al., 2020). Interpersonal relationship skills need to be developed; training needs to be provided to aid teachers in developing these skills (Langher et al., 2017; Pavlidou & Alevriadou, 2020). Conflict identified in teachers' and students'

interpersonal relationships has prompted increased student burnout (Widlund et al., 2021), thus emphasizing the value of developing positive teacher–student relationships. Pavlidou and Alevriadou (2020) examined teachers' interpersonal skills through the Teachers' Interpersonal Competency Test; they identified training teachers in the appropriate interpersonal skills necessary as increased positive relationships with teachers positively influence students. Multiple perspectives and studies have shown the association between educator burnout and its adverse effect on students, resulting in suggestions for training in interpersonal skills.

Developing relationships with students is essential in education, both in general education and special education settings. Job satisfaction and acceptance of the challenges of the special education teaching position affected students in a study researching the relationship between resiliency and special education teachers (Nuri & Tezer, 2018). In addition, stress has influenced the interpersonal relationships between teachers and students (Nuri & Tezer, 2018; Oberle et al., 2020; Soini et al., 2019). Contrasting the negative influences, teachers who are in step with their students and anticipate students' emotional and intellectual needs have higher levels of emotional exhaustion (Bottiani et al., 2019). In a five-year follow-up study, Soini et al. (2019) found that teachers had low teacher-student relationships due to high levels of burnout. However, other research found that teachers were more understanding of students' needs when experiencing burnout (Bottiani et al., 2019). Research has shown an association between professional development and interpersonal relationships (Langher et al., 2017; Pavlidou & Alevriadou, 2020). Providing professional development for teachers to build interpersonal relationships can benefit students with special needs (Langher et al., 2017) and the general education field. While relationships between teacher burnout and student mental health are discussed, due to the nature of teacher-student relationships, the findings of Madigan and Kim (2021) could have been more

apparent regarding the extent of influence on student mental health. Studies have shown that stress, administration support, and training affect teachers' abilities to develop positive relationships with students with special needs.

Influence on Teacher Relationships

Both student–teacher relationships and peer relationships are crucial in education. Teachers' relationships encompass work and home life, including students, administrators, peers, friends, and family members. While healthy relationships among family and friends are valuable, this section focuses on the importance of healthy school relationships relative to burnout.

Not all relationships in schools are negative, but unhealthy relationships can contribute to a negative culture in the classroom and peer relationships. Among school relationships, teacher relationships were predictors of destructive work behaviors such as withdrawal from peers/students and sabotaging relationships. These destructive behaviors could affect how well a teacher relates to their students and their collaboration with their peers, ultimately affecting their teaching. In a recent Pakistan study, personal accomplishment and depersonalization contributed to withdrawal and sabotage, while emotional exhaustion and depersonalization led to increased abuse (Makhdoom et al., 2019). Teachers who tend to be retreaters or antagonists during challenging times may not engage in healthy relationships; healthy relationships are essential for an educator.

Developing healthy peer relationships in education is essential and can protect against burnout. In a regression analysis, Pavlidou et al. (2020) found that the ability to develop interpersonal relationships and coping strategies during challenging circumstances can be predictors of burnout among teachers, with the research guiding the recommendation of adding an interpersonal evaluation when selecting teachers for positions. When interviewing teachers,

administrators need awareness of personalities and the role the potential teacher's ability to develop interpersonal relationships could have on a teaching team. A positive outlook in peer relationships affects and safeguards against burnout (Bottiani et al., 2019). Likewise, Atmaca et al. (2020) and Badia (2018) suggested encouraging teachers to collaborate with their peers to withstand the pressures of teaching. In summary, healthy peer relationships in education provide support in a demanding field, while toxic or poor relationships can contribute to an unfavorable environment.

Influence on Teacher Attrition

Attrition plagues the education system and refers to leaving the field of education or even moving to a different position or school. The United States Government Accountability Office (GOA) reported a teacher vacancy increase of 21% to 30% in their review of the SASS 4A and National Teacher and Principal Survey (NTPS) from the years 2011–2012 to 2015–2016 (United States Government Accountability Office, 2022). Billingsley (2004) identified the definition of attrition in four categories: keeping teachers in their current special education position, moving to general education, moving to another special education job, and exiting the teaching field. Relative to special education teachers, Hester et al. (2020) identified attrition as leaving the field of special education, and Gilmour and Wehby (2020) recognized attrition as teachers who have left the teaching field or changed schools. In addition, the GAO identified principals reporting a 69% vacancy in special education during the 2015–2016 school year compared to the overall vacancy education reported at 30% (United States Government Accountability Office, 2022). Over three years, an average of 15.10% of teachers with students with disabilities in their classrooms left or changed schools (Gilmour & Wehby, 2020). Research on the intent or longing

to leave the field of education indicated that 52% of secondary school teachers reflected a desire to select a different career than education (Jerrim & Sims, 2019).

Intent to leave and attrition have been studied alongside years of experience, demonstrating the need to provide strategies to help alleviate burnout among early teachers. Multiple studies have identified younger teachers as having a higher probability of leaving than their peers who have been teaching for a more extended period (Billingsley, 2004; Gilmour & Wehby, 2020; Hester et al., 2020; Park & Shin, 2020). In 2004, the rate of teachers leaving the field of special education within the first five years was as high as 50% (Hester et al., 2020). Park and Shin's (2020) meta-analysis of special education teacher burnout revealed high levels of burnout in teachers beginning their careers. High attrition among educators early in their careers indicates a need to provide additional support to promote teacher retention.

Attrition due to burnout is connected with workload, behaviors, emotional support, and administration support. An educator's job expectations and environment factor into the stress and satisfaction perceived by teachers, eventually leading to educator attrition (Billingsley, 2004). While heavy workload, student misconduct, and work–family discord contribute to emotional exhaustion, which subsequently leads to plans to leave teaching, the work-family discord of bringing the workload home or working long hours was identified as increasing emotional exhaustion (Rajendran et al., 2020). Work and emotional demands are associated with intentions to leave the teaching field. Furthermore, it was noted that some teachers who relied on various spiritual support were less affected by the intent to leave the teaching field (Charzyńska et al., 2021). Administration support, along with acknowledgment of teachers' demands and dissatisfaction, can reduce attrition (Lawrence et al., 2019). While it has been concluded that attrition is costly to schools, school administration's support should be implemented to prevent

attrition (Ford et al., 2019). Teacher turnover in education is a critical problem due to high levels of burnout, and the administrators' awareness of the support and needs can alleviate high attrition rates.

Burnout Influence on Teacher's Well Being

Teacher burnout and stress influence education; additionally, burnout and stress sculpt teachers' health, family relationships, and engagement. Personal health issues and a negative influence on family engagement have been conveyed among teachers (Hester et al., 2020; Nuri & Tezer, 2018), although teachers with over 15 years of experience report an increase in the ability to maintain family connections (Nuri & Tezer, 2018). With the rise in stress and burnout, teachers feel isolated in schools and report health issues related to physical and mental health (Hester et al., 2020), with a possible relationship reported between burnout and voice disorders. However, the research did find that notwithstanding burnout, teachers had high levels of passion and personal insight (Montoya et al., 2021). Elevated stress and burnout can distress teachers' work and personal lives, ultimately affecting the students as they may not be effective in their teaching role.

Concerning burnout, the well-being of teachers has been associated with self-care, repeated student aggression, and emotional challenges. Teacher burnout and lower production were positively correlated with presenteeism (Ferreira et al., 2021), which results in teachers not sustaining self-care. A recent five-year longitudinal study found that teachers exposed to ongoing student aggression exhibited emotional exhaustion, decreased feelings of safety, and diminished perceptions of belonging (Olivier et al., 2021). Depression and anxiety correlated with burnout among educators, which caused the authors to question whether burnout scales measure depression (Schonfield et al., 2019). However, Maslach and Leiter (2016) addressed the

correlation between burnout and depression and explained the correlation as excessive amounts of fatigue experienced with burnout and depression. Furthermore, Maslach and Leiter (2016) noted the overlap in the depression measures and highlighted the distinction between the three dimensions. Additionally, they noted that while burnout and depression are not isolated from each other, they are not considered the same mental illness.

Emotional exhaustion and stress contribute to attrition in the field of education. Emotional and physical health, which leads to emotional exhaustion, has been identified as a cause of teacher turnover (Bettini et al., 2019; Hester et al., 2020) and burnout (Herman et al., 2020). Emotional exhaustion, a burnout dimension (Maslach & Leiter, 2016), affects teachers' stress levels and burnout. Emotional exhaustion and stress resulting from teaching in education can lead to high stress levels, leading to higher attrition.

The family or home life of teachers experiencing burnout is an area of concern due to burnout, the sacrifices teachers make in place of their families, and the carry-over of stress from work to home. A recent study of burnout and attrition indicated that the conflict between work and family positively predicted emotional exhaustion (Rajendran et al., 2020). However, in a study of well-being and mental health, teachers who left the field of teaching for a different profession did not experience greater contentment as measured by alcohol consumption and sleep quality but did find improved delight in their new occupation (Jerrim et al., 2021).

In the context of strategies to help stress, mindfulness as a resource has been shown to decrease the stress leading to teacher burnout (Guidetti et al., 2019; Rickert et al., 2020). Regarding spirituality, teachers who indicated higher levels of spirituality resulted in increased productivity stress and job-related stress (Cook & Babyak, 2019). Students have observed the positive effects of mindfulness on the teacher at a higher rate than the teachers recognized in

themselves (Rickert et al., 2020). In addition, students have shown awareness of the need to understand the cause of burnout to be preemptive to mitigate possible burnout among their teachers. One of the student teachers noted a trend in teaching of experiencing burnout after a few years and then needing to take sick leave (Lindqvist et al., 2020). Preemptive strategies may be helpful to alleviate burnout in the educational system, which can increase productivity and improve the overall well-being of teachers.

Additional Influences on Teacher Burnout

In contrast to the previous section, this section discusses influences on burnout. First, the workload can lead to increased burnout (Lawrence et al., 2019). Next, students are also influencers of burnout (Simöes & Calheiros, 2019), both from misbehavior and relationship demands. Administrative support is also an influencer (Camacho et al., 2021); it is discussed in the final section to highlight its importance to the study.

Workload Influence on Burnout

Heavy workloads in education cause stress and can lead to attrition (Billingsley, 2004; Cancio et al., 2018; Gilmour & Wehby, 2020; Hester et al., 2020) and burnout (Lawrence et al., 2019). Teachers, in general, have been found to experience burnout; regarding emotional exhaustion, both females and males had elevated levels indicating a link to job-related stress, such as an overwhelming workload (Jamaludin & You, 2019). Paperwork, caseload, and legal mandates lead to stress and burnout and can even lead to attrition (Bettini et al., 2019; Billingsley, 2004; Hester et al., 2020), which can leave teachers with the perception that they do not have time to prepare for teaching lessons (Arvidsson et al., 2019). In addition, with the introduction of new curricula, teachers experience increased stress (Atmaca et al., 2020). Inclusion teachers with high levels of burnout were less motivated to participate in inclusion

(Saloviita & Pakarinen, 2021). Workload expectations beyond teaching significantly contribute to burnout, affecting the three dimensions of Maslach's scale (Lawrence et al., 2019).

Heavy workloads leading to burnout influence attrition rates among teachers. A correlation has been noted between the stress levels caused by heavy caseloads and teachers leaving the field of special education (Cancio et al., 2018; Hester et al., 2020). Stress was related to teachers' perceptions of their job expectations, relationships, and emotional exhaustion, influencing their desire to stay in their teaching positions (Bettini et al., 2019). A relationship between the number of hours teachers work and emotional burnout leads to a desire to leave the field, identifying teachers who work more than five hours per day as having high teacher turnover (Nuri & Tezer, 2018). General education inclusion teachers with the highest percentage of students with disabilities were the most likely to leave or move schools. This shows that work demands related to special education inclusion students created a higher risk of turnover rates (Gilmour & Wehby, 2020). The workload in education has been identified as contributing to attrition due to the additional stress it adds to teachers.

Students Influencing Burnout

Misbehavior among school students was shown to induce perceptions of burnout among educators. Student misbehavior, identified by the School Crime and Safety Report (National Center for Education Statistics, 2020) and surveyed during the 2015–2016 school year, indicated that 8.8% of secondary teachers were threatened with injury and 2.3% were physically attacked (National Center for Education Statistics, 2020). Overall, 9.8% of teachers reported being physically threatened in kindergarten through 12th grade, and 5.8% indicated they were physically attacked (National Center for Education Statistics, 2020). Teachers' exposure to aggressive behaviors from students was a predictor of emotional exhaustion (Olivier et al.,

2021). Further research indicated that misbehavior influences a teacher's emotional exhaustion (Simöes & Calheiros, 2019). In addition, a recent study of teacher burnout and cyberbullying showed a positive correlation between teachers being eyewitnesses of student cyberbullying and teacher burnout (Ferreira et al., 2021). Among teachers who left their teaching position, it was found that 13% of teachers felt victimized by students, with 20% of teachers not perceiving a supportive administration when dealing with student needs (Moon et al., 2020). Misbehavior of students plays a role in teacher burnout and stress with connections to attrition and perceived administration support.

Relationships between students and teachers play a role in how students influence the burnout of educators. In terms of student interest, when students show interest, teachers have increased motivation (Atmaca et al., 2020). Additionally, when students and teachers have appropriate interpersonal relationships, there may be less misbehavior from the students in the classroom (Van Droogenbrœck et al., 2014). However, Simöes and Calheiros (2019) found that teachers with 20-plus years of experience were more likely to experience elevated emotional exhaustion due to interpersonal relationship overburden. Developing appropriate relationships with students adds to the workload, but developing relationships is valuable in deterring misbehavior in the classroom environment, which plays a role in educator burnout.

Burnout According to Years of Experience

In a study of self-efficacy and burnout, teachers with more years of experience reported having higher levels of exhaustion and depersonalization (Kim & Burić, 2020). In contrast, a qualitative study that interviewed teachers in different career stages found that teachers with between eight and 15 years of experience identified learning how to balance family life and work life, which, when unbalanced, can lead to burnout (Brunetti & Marston, 2018). Furthermore, in

another study of middle school teachers, there was no significant difference in years of experience and teachers' occupational health (Braun et al., 2018). Higher years of experience played a role in teachers accepting the challenges and stress associated with teaching in special education and allowed teachers with more experience to stay in their teaching roles; alternatively, beginning teachers were more likely to leave teaching or change schools (Nuri & Tezer, 2018). Years of experience increase a positive outlook on life, decreasing burnout and positively influencing personal accomplishment (Camacho et al., 2021). A study related to gender, experience, and education found that teachers, in general, were experiencing burnout with particularly high levels of emotional exhaustion. However, teachers with less than five years of experience were experiencing depersonalization at higher levels than their peers (Jamaludin & You, 2019). The study further indicated that teachers with six to 10 years of experience are negatively affected by personal accomplishment. However, the groups with fewer and higher years of experience than those that surveyed low in personal accomplishment did not show decreased personal accomplishment, indicating that overall, teachers have an optimistic outlook regarding the field of education (Jamaludin & You, 2019).

Pandemic and Burnout

In March 2020, the education system experienced a disrupter it had not previously experienced, highlighting the urgency to research teacher burnout. With the fear of illness, masks, and digital teaching platforms entering the education system, teacher burnout levels could be heightened. The pandemic suddenly changed the education platform to digital learning, which required teachers to adapt to teaching in a digital world and often with frustrations. Schools quickly launched distance learning to include synchronous and asynchronous learning (Bansak & Starr, 2021; Trust & Whalen, 2020). The education field had to adapt to the new needs suddenly.

Still, the different expectations were in conjunction with previous expectations, which in general education and special education have already been identified as causing burnout, stress, and attrition. A general education teacher survey indicated that teachers were overwhelmed with the new expectation of teaching on a digital platform (Trust & Whalen, 2020). From the parents' perspectives, research showed that parents' support levels varied based on income, level of education, race, and work (Bansak & Starr, 2021); parental support or lack of parental support in a digital learning environment could influence teacher burnout. A lack of parental support in a digital learning environment could influence burnout. With little warning, the pandemic-related disrupters to the education system created many challenges for teachers beyond the challenges they already faced.

Teachers indicated they were overwhelmed with the new expectation of teaching on a digital platform during a pandemic (Trust & Whalen, 2020). Technology, or lack of technology, was identified as influencing learning and causing stress in both teachers' and students' families. Live virtual teaching was found to influence students and teachers in a positive manner (Bansak & Starr, 2021). However, this expectation of virtual learning, internet access or the lack thereof, affected students' education (Bansak & Starr, 2021; Trust & Whalen, 2020), with 51% of teachers reporting that students did not have consistent internet access (Iivari et al., 2020; Trust & Whalen, 2020). Teachers reported that the students and families were not equipped to learn in the digital learning environment; furthermore, parent communication during the pandemic was challenging (Öçal et al., 2021), which added additional stress to the teaching field. Teaching and learning during the pandemic brought many challenges; many were overcome, and some were not, and they may have caused additional stress in the teaching field.

Stress associated with the sudden shift to the digital platform affected teachers (Iivari et

al., 2020; Trust & Whalen, 2020), students, and their families (Bansak & Starr, 2021). In a survey provided to general education teachers, 61% of teachers responded that they felt overwhelmed with "online learning resources and tools available." Furthermore, only 38% noted a "prioritization of personal health/well-being" (Trust & Whalen, 2020, p. 191). Families were feeling stress related to the digital learning platform, which was influenced by outside influences such as financial concerns, employment, access to food, housing disruptions, health, and figuring out how to help with their children's schooling. (Bansak & Starr, 2021). The pandemic affected the stress of teachers, students, and families, causing teachers to feel overwhelmed due to the additional demands of teaching on a digital platform.

Teacher burnout is an area that is beginning to be researched, and studies have shown areas of burnout among teachers (Pressley, 2020, 2021). A study of teachers in New Zealand who experienced an earthquake portrayed high levels of emotional exhaustion 18 months after the earthquake (O'Toole, 2018), indicating the lasting effects of a catastrophe that disrupts the education system. Within the dimension of personal accomplishment, teachers were showing lower personal accomplishment scores than before the pandemic (Pressley, 2020). Areas of identified stress were teaching expectations, parent communications, support from administration (Pressley, 2021), personal health (Dvir & Schatz-Oppenheimer, 2020; Pressley, 2021), and technology challenges (Dvir & Schatz-Oppenheimer, 2020). Teachers reported difficulties with relationships and identity while teaching during the virtual learning phase of the pandemic (Kim & Asbury, 2020). The pandemic brought about additional stressors, creating a heightened sense of urgency in researching burnout among educators.

Burnout According to Classroom Assignment

Burnout, according to classroom assignments, frames the understanding of burnout

among different teacher groups. First, general education teachers experience burnout (Benita et al., 2019). Next, special education teachers in self-contained classrooms also experience burnout Billingsley and Bettini (2019). The third group of teachers is special education teachers in the resource/inclusion setting who experience burnout (Gilmour & Wehby, 2020). Finally, this section addresses administration support and its influence on teacher burnout (Camacho et al., 2021). The research from classroom assignments and administration support helps frame the understanding of burnout among teacher groups.

General Education

For the purpose of the current study, general education teachers are middle- and upper-school teachers who teach the core content of math, reading, science, and social studies. The philosophical ideation of general education teachers tends to have a constructivist approach (Sue Englert et al., 1992). Burnout in general education teachers has been established (Benita et al., 2019; McLean et al., 2019; Molero Jurado et al., 2019; Öztürk et al., 2021) and is a continuing problem in the education system with many influences identified. General education teachers teach various students with a wide range of ability levels and are expected to teach all students the expected state standards. The general education classroom may also include students who qualify for special education services such as accommodation, inclusion support, and assistive technology. Teachers with better classroom management were likely to show lower levels of emotional exhaustion and depersonalization (Gilmour et al., 2021), emphasizing the importance of establishing boundaries within the classroom environment. However, when teachers experience burnout in general education, students are affected through relationships (Benita et al., 2019; Herman et al., 2020; Molero Jurado et al., 2019; Öztürk et al., 2021) and academics (Molero Jurado et al., 2019). The pressures and expectations of teachers lead to increased levels

of burnout (Miller & Flint-Stipp, 2019).

Additionally, administrative support, or lack thereof, has been acknowledged as influencing burnout in general education teachers (Molero Jurado et al., 2019; Öztürk et al., 2021). Researching teachers' stress throughout the school year, von der Embse and Mankin (2021) found that teachers' stress levels increased by 20% from October to June, and the workload has recently increased in secondary education, leaving teachers discontented with the workload in addition to teaching expectations (Lawrence et al., 2019). Many influences from workload, time of year, and administrative support contribute to burnout among general education teachers.

Other influences that may guide classroom burnout are teacher-to-student ratios, disruptive student behaviors, resources, and the school atmosphere. However, while these may influence the classroom culture, Camacho et al. (2021) found that these did not overall influence the burnout dimensions, although some did approach significance in the emotional exhaustion dimension. Furthermore, emotional exhaustion has been identified as a predictor of burnout among secondary educators (Kuok & Lam, 2018) and lower levels of self-efficacy among high school teachers (Kim & Burić, 2020). Both middle and high school teachers were reported to have higher levels of depersonalization (Kim & Burić, 2020). Additional research suggests that depersonalization and emotional exhaustion do not always align in indicating burnout in educators due to a teacher's aspirations of helping children (Gilmour et al., 2021). General education teachers experience burnout due to multiple pressures and may experience elevated levels of the three dimensions of burnout.

Special Education Self-Contained

Special education self-contained teachers are typically in a classroom with fewer students

whose needs tend to be more significant. While general education teachers have a more constructivist approach, special education teachers are driven by data-driven individualized learning and goals with direct instruction (Brownell et al., 2010). Special education teachers in self-contained classes have many of the same stressors in conjunction with additional stressors in running the special education classroom, such as an individualized education plan paperwork, documentation, student misbehaviors, and isolation from other teachers. Some positive attributes of the special education self-contained classroom include smaller class sizes (Gilmour & Henry, 2020) and additional resources (Gilmour et al., 2021; Gilmour & Wehby, 2020); however, characteristics of the self-contained classroom include difficulty accessing instructional materials, limited time for planning (Bettini et al., 2017), additional duties, and being isolated from other teachers. In a study of general education teachers with emotional/behavior disorders (EBD) students in their classrooms and special education self-contained teachers of EBD, there was no significant difference in burnout between the two groups (Gilmour et al., 2021). However, a teacher turnover study found that special education self-contained teachers of students identified as EBD teachers had the highest attrition rate (Gilmour & Wehby, 2020).

Additionally, Billingsley and Bettini (2019) found an increase in burnout among special education teachers, contributing to less contentment in their work. Additionally, insufficient planning time was an identified problem in self-contained classrooms (O'Brien et al., 2019) and special education teachers' isolation (Bettini et al., 2018; O'Brien et al., 2019). Another study suggests that increased burnout could be due to small class sizes, lack of training, and deficient support received by self-contained teachers. In addition, general education students may tend to have milder behaviors than those in self-contained classrooms. Finally, the study found that teachers with more robust classroom management in self-contained classrooms showed lower

levels of emotional exhaustion and depersonalization (Gilmour et al., 2021). Planning time, isolation, and lack of support contribute to burnout in special education self-contained classes.

Special Education Resource/Inclusion

Special education inclusion teachers are affected by burnout (Gilmour & Wehby, 2020). Resource/inclusion teachers primarily teach students who are mostly in general education but may need additional support either through the teacher pushing into their general education classroom (inclusion) or being taught subjects in which the student qualifies in a classroom with a modified or differentiated curriculum that aligns with the standards (resource). Limitations to this teaching assignment are the added expectations of coaching and collaborating with general education teachers and the additional training to provide explicit special education curriculum instruction. One reason for burnout among resource/inclusion teachers is the increasing number of students with disabilities being educated in the inclusion setting (Gilmour & Wehby, 2020). Teacher turnover is influenced by inclusion and is higher in inclusion teachers who do not have their special education certification (Gilmour & Wehby, 2020); in addition, the uncertified teachers with higher percentages of inclusion students were identified as having an increased chance of attrition. Inclusion teachers with high levels of burnout were less motivated to participate in inclusion (Saloviita & Pakarinen, 2021). It has been suggested that there is a need for additional training and support for inclusion teachers of students with disabilities in their classrooms (Gilmour & Wehby, 2020); a pilot study suggested the use of prayer and mindfulness as a tool to reduce stress among special education teachers (Sharp Donahoo et al., 2017). The research needs to clarify if the inclusion teachers were the special education inclusion teachers or general education teachers with special education students receiving services in their classrooms. For the current study, inclusion teachers represent the special education side of inclusion.

Summary of Classroom Assignment

Philosophical teaching variations and differences in teacher certifications may influence the turnover of general education inclusion teachers (Gilmour & Wehby, 2020). Burnout has been identified as a challenge in the three classroom assignments, along with unique obstacles in each classroom assignment, adding to the levels of burnout. Additional research identifying the three classroom assignments alongside the three dimensions would give school districts and administrators an understanding of the different support needs associated with each classroom assignment.

Administration Support and Burnout

The role of administrators in education is critical in the health and success of the teachers by providing both professional and emotional support. Research has determined support from administrators as the crucial indicator of teachers' contentment and their resolve to stay in education (Tickle et al., 2011). The deficiency of adequate administration support contributes to the stress and burnout of teachers (Billingsley, 2004; Bottiani et al., 2019; Camacho et al., 2021; Hester et al., 2020; Langher et al., 2017; Lawrence et al., 2019). Administrative support and burnout are positively correlated; appropriate support was found to offset the effect of burnout (Camacho et al., 2021; Lawrence et al., 2019). Teachers report a shortage of administrative support, including professional development designed to meet educational needs (Hester et al., 2020). While Bottiani et al. (2019) did not find a significant number of teachers in the classroom experiencing stress, they did report leadership shaping stress and burnout among teachers. Additionally, teachers affirm that training and support from the administration led to increased relationships with students (Pavlidou & Alevriadou, 2020). In low-income schools with disruptive behaviors, teachers conveyed less stress and burnout when provided resources and

support (Bottiani et al., 2019). When both teachers and students were surveyed, a relationship was found between administration support, teacher burnout, and the emotional culture in the classroom (Jensen & Solheim, 2020). Confidence has been found to increase when teachers perceive administration support, which supports the increase in personal accomplishment on Maslach's Burnout Scale (Langher et al., 2017); in contrast, lack of emotional support provided in the classroom had a negative connection with teacher burnout (Braun et al., 2018; Jensen & Solheim, 2020). Administrators can set the stage to promote positive peer relationships, including support incorporating peer relationships to provide rapport and relationships (Camacho et al., 2021). Teachers have reported needing support from the administration both in professional development and emotional support to encourage confidence, allowing for higher levels of personal accomplishment (Braun et al., 2018; Camacho et al., 2021; Hester et al., 2020; Langher et al., 2017; Pavlidou & Alevriadou, 2020). Support from the administration is crucial in pre-emptively providing support needed to prevent teacher burnout.

The lack of administration support contributes to teacher stress and exhaustion (Bettini et al., 2019; Billingsley, 2004; Camacho et al., 2021; Hester et al., 2020; Park & Shin, 2020). Within the special education field, Bettini et al. (2019) found a relationship between administration support and burnout, which led to administrators' suggestion to provide support and protected planning time for special education teachers. Lack of support from the administration indicates that teachers who perceive low administration support have higher emotional exhaustion (Camacho et al., 2021; Jensen & Solheim, 2020; Langher et al., 2017), burnout, and stress (Camacho et al., 2021; Gilmour & Wehby, 2020). Providing guidance and support for families of special education teachers and career guidance helps alleviate burnout (Nuri & Tezer, 2018).

Administration support for teachers influences teacher attrition. A literature review indicated that teachers reported they were more likely to retain their teaching position when they perceived they had support from the administration (Billingsley, 2004). Likewise, about half of teachers leaving the field reported a perception of apathetic support from the administration (Moon et al., 2020). Similar findings were found in an open-ended survey, in which teachers indicated a lack of support from the administration as a reason for leaving the field and reported that the administration does not understand special education (Hester et al., 2020). Attrition rates in education are connected to a teacher's perception of administration support.

Teachers' stress levels are adversely related to perceived feelings of lack of support from the administration (Billingsley, 2004; Hester et al., 2020), which relates to the theory of burnout (Maslach & Leiter, 2016) and the perceived lack of accomplishment when administrative support is deficient. Lack of support from the administration shows that teachers who perceive low administration support have higher emotional exhaustion (Camacho et al., 2021; Jensen & Solheim, 2020; Langher et al., 2017), burnout, and stress (Camacho et al., 2021; Gilmour & Wehby, 2020). Recommendations provide guidance and support for families of special education teachers and career guidance to help alleviate burnout (Nuri & Tezer, 2018). Emotional exhaustion and stress are related to a deficiency in administration support. Suggestions have been made to provide additional support and guidance for administrators to help create a positive perception of administration support.

Within Bandura's (2012) self-efficacy theory, social persuasion and the influence of others can convince one to believe in oneself. The influence of others in education relates to the administration's support and the administrators' value of showing teachers' appreciation. Camacho et al. (2021) suggested future research to determine which supports teachers have

found to be beneficial in alleviating burnout. By understanding the educator's perspective and needs, administration support can help alleviate the attrition associated with education (Hester et al., 2020; Langher et al., 2017; Lawrence et al., 2019; Richards et al., 2018). Administration support influences self-efficacy among educators, which can ease burnout.

Purpose of Classroom Assignment and Administration Support

The intent and urgency for researching burnout by classroom assignment and understanding the influence of administrative support leads to future research regarding the support needed in the different classroom assignments, guides leadership in supporting teachers in various roles, and informs pre-service teachers. Teacher burnout is a topic guiding the undercurrent of our education system. Through researching the classroom assignment, administrators could use the research to understand the different supports needed to provide teachers with various classroom assignments to improve student outcomes. Some suggestions for teacher support are raising salaries, providing emotional support (Kuykendall, 2022), and investing in teacher preparation programs, resources, counselors, and advancement opportunities (United States Government Accountability Office, 2022). Pre-service teacher training programs could prepare teachers for various roles or classroom assignments and teach them how to manage stress and burnout.

Among educators, administrative support, both professional and emotional, is a predictor of burnout (Camacho et al., 2021). Suggestions have been made for research to explore the different supports needed for general education teachers with inclusion students and special education teachers, both inclusionary and self-contained (Gilmour & Wehby, 2020). MBI's three factors could provide insight into the different burnout needs of the three types of classroom assignments: general education, special education inclusion, and special education self-

contained.

Summary

Burnout plagues the education field with research to support the need to develop strategies to ameliorate burnout among educators. Teachers have been teaching with different expectations within the general education and special education fields, including workload expectations and administration support. Researchers have studied the validity and application of burnout theory in general education and special education. Still, they have yet to address the differences in the three groups of general education, special education self-contained, and special education resource/inclusion. The exhaustion, depersonalization, and personal accomplishment perceived by teachers, which results in burnout, are necessary to understand teachers' stress in education (Maslach & Jackson, 1981). Bandura's self-efficacy theory has been studied and plays a role in teachers' self-efficacy concerning the possible differences in burnout among the classroom assignments of general education, special education resource/inclusion, and special education self-contained (Bandura, 1977). The validity of Bandura's self-efficacy in education has been applied. Self-efficacy plays a role in coping skills and managing the feeling of exhaustion. Maslach's burnout theory has been applied to education because education is a people-centered career. MBI surveys teachers in emotional exhaustion, personal accomplishment, and depersonalization.

Researchers have explored teacher burnout, stress, and attrition among general and special education teachers; however, a gap remains in comparing burnout according to classroom assignments. Teachers face significant educational challenges, highlighted due to the changes and demands of teaching during the pandemic (Pressley, 2020). Applying the theories of burnout and self-efficacy, researchers recognized a relationship between teacher burnout, emotional

exhaustion, self-efficacy, and students in general and special education (Herman et al., 2020). Furthermore, attrition has been identified as an issue in education (Gilmour & Wehby, 2020). Researchers have studied attrition and identified relationships with workload and paperwork, lack of administration support/resources, and health and emotional stress contributing to high attrition levels. Teacher engagement and stress influence the classroom environment and teacher's health (Hester et al., 2020), which prior research has associated with coping, health, workload, and administrative support. Within the past two years, research has taken place regarding COVID-19 and education, showing the effect on teaching and stress on teachers, students, and parents (Pressley, 2020).

A gap exists in the literature identifying the differences in burnout among teachers in different classroom assignments of general education, special education self-contained, and special education resource/inclusion. Previous research acknowledges administrative support's substantial role in teacher burnout (Camacho et al., 2021). Further research needs to address the differences in burnout among the teachers in the different classroom assignments to allow future research to identify the different burnout needs in the various classroom assignments. Recent research regarding education and the pandemic has highlighted the sense of urgency to research educator burnout (Pressley, 2020). Special education (Billingsley & Bettini, 2019) and general education teachers (Benita et al., 2019) have previously been identified as experiencing high burnout, attrition, and stress levels. Additional research needs to identify the differences in burnout among general education teachers, special education self-contained teachers, and special education resource/inclusion teachers controlling for administration support. The current research seeks to address this gap in the literature.

CHAPTER THREE: METHODS

Overview

The purpose of this quantitative, causal-comparative is to study the difference in burnout among general education teachers, self-contained special education teachers, and resource/inclusion special education teachers using the three dimensions of the burnout inventory. This chapter introduces the study's design and includes definitions of the variables. The research questions and the hypothesis follow. This chapter then provides details of the participants, setting, instrumentation, and procedures and concludes with data analysis plans.

Design

A quantitative, *ex post facto*, causal-comparative design was used to compare burnout among general education teachers, special education resource/inclusion teachers, and special education self-contained teachers. Causal-comparative allows the researcher to study relationships among the groups (Gall et al., 2007) while controlling for a variable to determine if the differences might be explained by the variable (Hernesniemi et al., 2019). Ex post facto, Latin for after the fact, allows the research to determine the cause or consequence of relationships that have previously happened (Gall et al., 2007). In causal-comparative research, the presumed cause is the independent variable. The effect is the dependent variable, and there needs to be a minimum of two different groups of individuals within the independent variable (Creswell & Guetterman, 2012; Gall et al., 2007) and identify potential causes of relationships.

According to Gall et al. (2007), the steps for causal-comparative research begin with determining cause-and-effect and developing the hypothesis. After identifying the topic and possible causes and effects, the research problem can be formed and stated as a question or hypothesis. The researcher should then attempt to determine and test other possible ideas

concerning other variables that may influence or explain the differences found in the research. The comparison groups are then formed and defined with precise details to allow for duplication of the study. Upon establishing the groups for the independent variable, the data collection begins using a measuring instrument. After collecting data, the researcher begins data analysis using the selected statistical analysis. Finally, the interpretation of data takes place to determine if there is a difference in potential cause and effect among the groups.

Groups included in the causal-comparative design were the independent variable measured in categories (Gall et al., 2007). The groups for the current study were secondary teachers in the following categories: general education teachers, special education resource/inclusion teachers, and special education self-contained teachers. Convenience sampling may be used due to the researcher's location, and the researcher would need to provide reasoning and characteristics of the population sample (Gall et al., 2007). The groups used in this causal-comparative study were formed by classroom assignment. Teachers were selected at random to form balanced groups.

Gall et al. (2007) discuss that data collection for the causal-comparative design was collected using a measuring instrument. Some instruments mentioned were “standardized tests, questionnaires, interviews, and naturalistic observations” (Gall et al., 2007, p. 314). The instrument used in the current study was MBI-ES, a three-factor survey (Maslach et al., 2018). The results of the data collection were then used for data analysis.

An advantage of causal-comparative research is that it allows the researcher to investigate potential cause-and-effect relationships associated with natural occurrences (Gall et al., 2007). This advantage allows for research in areas where the independent variable cannot be manipulated and allows for research in areas that can be assessed through an interview or survey.

Independent variables in the current study would be the classroom assignments of general education teachers, special education self-contained teachers, and special education resource/inclusion teachers. Another advantage would be that the formation of the groups is more aligned with how they naturally occur and are more easily understood (Gall et al., 2007). A possible disadvantage of causal-comparative is that the researcher may have less control and must be careful when interpreting the data, such as when there may be a relationship among the groups and the dependent variable with difficulty drawing causal conclusions. Still, in other cases, there can be confidence in the causal conclusions when conclusions are drawn to show the causes (Creswell & Guetterman, 2012). Another disadvantage of this type of research is that the independent variable is not manipulated, allowing for solid conclusions about the study of cause and effect (Gall et al., 2007). Creswell and Guetterman (2012) discuss the lack of manipulation of the independent variables as a positive characteristic as it adds practicality.

A quantitative, ex post facto causal-comparative study was selected as the design for the current study to determine if there is a difference in teacher burnout based on classroom assignments of special education self-contained teachers, special education resource/inclusion teachers, and general education teachers teaching in sixth through 12th grade. Teacher burnout was measured in three individual dimension scores: emotional exhaustion, depersonalization, and personal accomplishment. Additionally, the study researched teachers' perceptions of administrative support.

Causal-comparative means that the research attempts to determine differences between two or more categories (Gall et al., 2007), which in the current study are the categories of teaching settings of general education, special education resource/inclusion, and special education self-contained. The independent variable is classroom assignment comprised of

general education, special education self-contained, and special education resource/inclusion. General education teachers are middle- and upper-school teachers who teach core content classes. The categorical group for the current study, general education teachers, teach in grades six through 12 in a core content subject of English language arts and reading, math, science, or social studies and do not teach remedial or advanced classes. The next group is special education self-contained teachers who teach special education to students who spend most of the day in the self-contained classroom. The special education self-contained teachers teach special education services primarily in the self-contained setting in grades six through 12. The final group of teachers is special education resource/inclusion educators who teach core content classes as co-teachers in a classroom or an inclusion setting. Special education resource/inclusion teachers, for the purpose of the current study, provide services for students in grades six through 12, teach English language arts/reading resource, math resource, science resource, or social studies resource, and/or teach through the inclusion of English language arts and reading, math, science, or social studies to provide individualized support services for students who receive special education services in resource/inclusion settings. The independent variable of groups of teachers is on a categorical, nominal scale and includes general education teachers, special education self-contained teachers, and special education resource/inclusion teachers. The teachers were not randomly assigned, which was a determining factor in selecting the causal-comparative design. The dependent variable of scores from MBI is a naturally occurring variation and is given in survey form and reported in a continuous score.

In alignment with causal-comparative research, the current research utilized a survey. The survey was MBI-ES, which is appropriate for the causal-comparative design because it allows for research of a natural occurrence. The data is not archival and was collected during the

research. The survey results are on a continuous scale and have three dimensions measured independently as factors of burnout. The dependent variable is a linear combination of the three dimensions of MBI: emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion is when the teacher feels they have nothing left to give and their emotional resources are exhausted (Maslach et al., 1996). Secondly, depersonalization is when the teacher feels detached from others or has negative feelings toward others (Maslach et al., 1996). The final subscale of burnout is personal accomplishment, which includes negative self-perceptions or not feeling a lack of accomplishment (Maslach et al., 1996).

The covariate is the teacher's perceptions of administrative support. Administrative support is the factor that influences attrition and the level of contentment among teachers (House, 1981). The covariate is measured on a continuous scale using five questions from the SASS 4A.

Research Question

The research question for this study is:

RQ1: Is there a difference among general education, special education self-contained, and special education resource/inclusion teachers' emotional exhaustion, depersonalization, and personal accomplishment burnout?

Hypothesis

The null hypothesis for this study is:

$H_0$1: There is no significant difference among general education, special education self-contained, and special education resource/inclusion teachers' emotional exhaustion, depersonalization, and personal accomplishment burnout as measured by Maslach's Burnout Inventory – Educational Survey.

Participants and Setting

The purpose of the current research was to study the interaction of the three burnout dimensions using MBI among general education teachers, self-contained special education teachers, and resource/inclusion special education teachers. The participants and setting portion included a description of the population, the participants, the sampling technique, and the sample size. In conclusion, this section includes a description of the setting.

Population

The target population from which the sample was drawn consists of upper school (sixth through 12th grade) general and special education teachers in a large suburban district and districts in the surrounding area in the suburbs of Dallas, Texas. Permission was granted by a large suburban school district (see Appendix A). The total population of teachers in this school district reported in 2019–2020 was 1,621.6, with a special education teacher population reported as 180.6. The overall years of teaching experience was 12.4 years, and the district average was 7.5 years of teaching staying within the district. Years of experience were reported for the teacher population (Table 1). The overall turnover rate in the district is 14.5%. The breakdown between general and special education teachers' years of experience was not provided.

Table 1

Years of Experience in Demographic Data for Target Population

Years of Experience	Percentage of Teachers
Beginning Teacher	3.3
1–5 years	19.9
6–10 years	22.2
11–20 years	39.1
21–30 years	13.8
Over 30 years	1.7

Note. TAPR Data 2020–2021. Data reported in TAPR rounded to one decimal place.

Convenience sampling was used to get participants. Convenience sampling allows the researcher to select a convenient population for location, relationships, knowledge of the population site, or previous data collected from the site (Gall et al., 2007). Convenience sampling allowed the groups of general education, special education self-contained, and special education resource/inclusion teachers to be represented in the study regardless of the actual proportion of teachers in each category. Teachers were selected through randomized clusters to ensure balanced groups from the population.

Participants

The target sample size for the current study was a minimum of 57 teachers split equally into each of the three independent variable categories of general education core classroom teachers, special education resource/inclusion teachers, and special education self-contained teachers. According to Dattalo (2013), the multivariate analysis of covariance (MANCOVA) of three groups and three dependent variables and the covariates assuming a medium effect size with an alpha level of $a = .05$, the statistical power of .20 and partial $\eta 2 = .15$ (moderate) suggests a sample size of 54 participants. When running G*Power for a multivariate analysis of variance (MANOVA), with an alpha level of $a = .05$, a statistical power of .8, and an effect size

of partial η2 = .17, the results indicated a needed sample size of 51. Using these suggested sample sizes, the goal was to collect 57 surveys, allowing room for data that may be excluded during the screening process. To participate in the study, participating teachers must have been teaching in the district during the 2022–2023 school year in one of three teaching settings: general education core content, special education resource/inclusions, or special education self-contained. The formation of groups was the three teacher groups.

The participants' demographic information was collected through a demographic survey. The samples were similar between the whole group of participants and the randomly selected equal groups. The average age was 40–49, with 39.5% of the population and 38.6% of the randomly selected group. The grade levels taught were between 06 and 12, with high school (9-12) represented by 19 (33.3%) teachers and middle school (6-8) represented by 38 (66.7%) teachers in the randomly selected equal groups; the whole group was represented as 24 (31.6%) and 52 (68.4%) respectively. The years of experience in the randomly selected group are noted in Table 2. The ethnicities represented in the whole sample were White (80.7%), African American (7.2%), Hispanic (2.4%), and Multiracial (4.8%).

Table 2

Years of Experience Demographic Data for Random Sample by Teacher Group

	Percentage of Teachers		
Years of Experience	General Education	Special Education Self-Contained	Special Education Resource/Inclusion
Beginning Teacher	.00	.00	5.26
1–5 years	5.26	21.05	5.26
6–10 years	5.26	15.78	15.78
11–20 years	47.37	42.11	47.37
21–30 years	36.84	15.78	21.05
Over 30 years	5.26	5.26	5.26

The participant's demographic information was collected through a demographic survey. The samples were similar between the whole group of participants and the randomly selected equal groups. The average age was 40–49, with 41% of the population and 38.6% of the randomly selected group. The grade levels taught were between 06 and 12, with high school (9-12) represented by 19 (33.3%) teachers and middle school (6-8) represented by 38 (66.7%) teachers in the randomly selected equal groups; the whole group was represented as 26 (31.3%) and 57 (68.7%) respectively. The years of experience in the randomly selected group are noted in Table 2. The ethnicities represented in the whole sample were White (82.4%), African American (8.8%), Hispanic (1.8%), and Multiracial (3.5%).

The demographics of teacher groups were also similar among the groups (Table 3). A diff*e*rence was the years of experience; the special education resource/inclusion teacher group had a teacher in their first year, while the other groups had zero. The special education self-contained teacher group had four teachers with 2–5 years of experience, while the other two groups had one teacher with 2–5 years of experience. A similarity was that all groups were full-time teachers. Another similarity was that the special education resource/inclusion teachers and special education self-contained groups had one male teacher, and the general education teacher group had four male teachers.

Table 3

Demographics for Participants by Equal Teacher Group

		Gen Ed		Spec Ed. Self-Cont.		Spec Ed Resource/Inc.	
	Category	*n*	*%*	*n*	*%*	*n*	*%*
Gender	Male	4	21.05	1	5.26	1	5.26
	Female	15	78.95	18	94.74	18	94.74
Grade-Level	6–8	11	57.89	12	63.16	15	78.95
	9–12	8	42.11	7	36.84	4	21.05
Age	20–29	1	5.26	1	5.26	1	5.26
	30–39	2	10.53	3	15.89	4	21.05
	40–49	8	42.11	5	26.32	9	47.37
	50–59	7	36.84	9	47.37	3	15.89
	60 +	1	5.26	1	5.26	2	10.53
Ethnicity	African American	1	5.26	1	5.26	3	15.89
	Hispanic	0	.00	1	5.26	0	.00
	White	15	78.95	17	89.47	15	78.95
	Multi-Racial	1	5.26	0	.00	1	5.26
	Prefer not to identify	2	10.53	0	.00	0	.00
Employment status	Full-Time	19	100.00	19	100.00	19	100.00
	Part-Time	0	.00	0	.00	0	.00
Years in present district	0–6 months	0	.00	0	.00	1	5.26
	7–11 months	0	.00	1	5.26	0	.00
	1–2 years	0	.00	2	10.53	4	21.05
	3–5 years	2	10.53	8	42.11	3	15.89
	6–10 years	8	42.11	2	10.53	7	36.84
	11–15 years	5	26.32	4	21.05	3	15.89
	16–20 years	1	5.26	1	5.26	1	5.26
	21 + years	3	15.89	1	5.26	0	.00
Years of experience	1 year	0	.00	0	.00	1	5.26
	2–5 years	1	5.26	4	21.05	1	5.26
	6–10 years	1	5.26	3	15.89	3	15.89
	11–20 years	9	47.37	8	42.11	9	47.37
	21–30 years	7	36.84	3	15.89	4	21.05
	31 + years	1	5.26	1	5.26	1	5.26

Note. Gen Ed = General Education, Spec Ed Self-Cont. = Special Education Self-Contained, Spec Ed Res/Inc = Special Education Resource/Inclusion

Setting

The setting was teachers currently teaching in a sixth grade through the 12th grade classroom in each of the three independent categories: general education core classroom, special education resource/inclusion, and special education self-contained classroom. The district's email system was used for communication. The demographic questions, MBI-ES survey, and SASS 4A were administered via Mind Garden's Transform system, and the information regarding accessing the survey was shared via email.

Instrumentation

The current study aimed to determine the differences in burnout sub-scales among teachers teaching in three different classroom assignments. A demographic survey was included through the Mind Garden Transform system to gather demographics and include questions to collect data and identify the groups within the independent variable classroom teaching settings during the 2022–2023 school year. The instrument used to measure burnout dimensions was MBI-ES (Maslach et al., 2018). The covariate of administration support was measured using the Schools and Staffing Survey (SSAS) 4A. This section discussed the instruments, the variables measured, and the instrument's validity.

Maslach's Burnout Inventory – Educator's Survey

To measure the dependent variable of burnout, MBI-ES (Maslach et al., 2018) was used (See Appendix B for sample questions). The MBI-ES has three dimensions to measure emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al., 2018). The original purpose of MBI was to look at burnout in the context of all human service occupations. The MBI-ES was later developed to recognize burnout in the education field, including among teachers, administrators, paraprofessionals, school counselors, and school nurses (Maslach et al.,

2018), thus the reason MBI-ES was chosen for the current study. Maslach et al. (2018) identify the tool as helpful for teachers and students in understanding the school culture.

MBI was developed in 1981 due to a widespread interest in burnout, but there was not much research on it (Maslach & Jackson, 1981). Maslach and other leading researchers of burnout in human service industries found a need for a standardized measure to aid the research (Maslach & Jackson, 1981). The early research was exploratory and used various tools such as interviews, surveys, and observations, which led to finding patterns to develop the burnout inventory (Maslach & Jackson, 1981). The early form of MBI contained 47 items and was given to various service-oriented professionals. Upon completing the research to develop MBI in 1981, the developers continued to create versions of MBI to meet the needs of individualized groups and settings in the human service industry. The current research allowed for the development of the MBI-ES, which is designed to identify burnout in the education field (Maslach et al., 2018). MBI was used in numerous studies (e.g., Aboagye et al., 2018; Hawrot & Koniewski, 2017; Szigeti et al., 2017).

MBI-ES is comprised of three dimensions: emotional exhaustion, depersonalization, and personal accomplishment. The emotional exhaustion scale has nine statements, depersonalization has five statements, and personal accomplishment has eight statements, each with frequency and intensity measurements. There is a total of 22 statements on the survey. Likert-type scales were used to measure the three areas of the MBI-ES. The scales are measured on a frequency scale: 0 – never, 1 – a few times a year, 2 – once a month, 3 – a few times a month, 4 – once a week, 5 – a few times a week, 6 – every day (Maslach & Jackson, 1981; Maslach et al., 2018).

The emotional exhaustion (EE) subscale is described as diminished energy resulting in exhaustion, lethargy, and inability to give any more of oneself (Maslach & Jackson, 1981;

Maslach et al., 2018). The emotional exhaustion scale addresses the feelings of exhaustion caused by work and shows feelings of tiredness and exhaustion. When it becomes chronic, the teachers cannot instruct the students as they were able to before emotional exhaustion (Maslach et al., 2018). The following is a sample question from the emotional exhaustion subscale, "I feel emotionally drained from my work." The higher the emotional exhaustion score, the higher the level of burnout.

The next subscale is depersonalization (DP), which provides questions to determine the educator's feelings toward students. When educators experience feelings of depersonalization, they exhibit distant and negative attitudes (Maslach & Jackson, 1981; Maslach et al., 2018). The DP scale measures the detachment or inability to feel emotions towards the students; when the educator cannot have positive feelings, burnout has been reached; DP manifests in teachers being distant or withdrawing from students (Maslach et al., 2018). The DP subscale includes the following sample item, "I feel I treat some students as if they were impersonal objects." Scoring a higher number on depersonalization indicates a higher level of burnout.

The final subscale of the MBI-ES is personal accomplishment (PA). PA provides insight into the educator's feelings of personal competence and capabilities of teaching students (Maslach & Jackson, 1981). The PA scale measures the teacher's feelings of accomplishment, and when the teacher does not have the self-perception of contributing to the students, burnout occurs (Maslach et al., 2018). A sample item for the PA subscale is "I feel I'm positively influencing other people's lives through my work." PA scoring uses reverse coding since lower scores illustrate higher burnout (Maslach & Jackson, 1981; Maslach et al., 2018).

When testing for reliability, the consistency of findings when replicated is analyzed. The reliability of the MBI-ES in elementary teachers indicated an internal consistency coefficient

alpha in the dimensions of EE .90, DP .76, and PA .76 (Iwanicki & Schwab, 1981). In a meta-analysis of MBI, Wheeler et al. (2011) reported that the EE scale showed a consistent coefficient of 98% of the studies reporting .80 or higher while the mean coefficient alpha across all dimensions typically fell in the .70 to .80 range. In a recent study, Nuri and Tezer (2018) reported the test reliability coefficients as EE being .83, DP being .72, and PA being .67. The internal reliability of the MBI-ES was reported as having a Cronbach alpha of .90 for EE, .76 for DP, and .76 for PA (Maslach et al., 2018). The test-retest reliability was tested in a sample of 248 teachers one year apart. The test-retest reliabilities were .60 for EE, .54 for DP, and .57 for PA (Jackson et al., 1986). The degree to which the MBI survey can be used as a clinical diagnostic tool to discriminate between those with burnout and those without burnout was determined as having validity (Schaufeli et al., 2001).

Maslach et al. (2018) defined the construct validity of the MBI-ES as examining the three-factor structure of the test. In a confirmatory factor study of the validity of the MBI-ES, it was found that both burnout as a whole and the dimensions can be used when seeking to understand burnout in teachers better; however, it was suggested to use caution when using emotional exhaustion and depersonalization as they indicate results of the general burnout rather than specificity (Szigeti et al., 2017). The factorial validity of the MBI General Survey (MBI-GS) was studied, and it found that the three-factor was acceptable (EE, DP, PA); however, the two-factor was not found acceptable (Kitaoka-Higashiguchi et al., 2004). The construct validity was examined, and the three-factor structure was determined to be the best fit (Maslach et al., 2018). The validity of the MBI-ES concerning teachers' working conditions with influences from both administration and student behavior has been supported (Maslach et al., 2018). The validity of burnout dimensions and predicted outcomes were researched, and findings indicated

that teacher-student relationships and literacy skills suffered from teacher burnout (Hoglund et al., 2015).

Maslach et al. (2018) describe the scoring of the MBI-ES. Scoring is typically looked at in the three individual subscale scores and not as one overall score; it is encouraged to study the differences between the dimensions (Maslach et al., 2018). The current study plans to use the MBI-ES subscale scores, not the overall score, as the MBI-ES manual instructs using subscale scores (Maslach et al., 2018). EE and DP scales show higher scores for higher levels of burnout. In contrast, the PA scale used reverse coding, indicating lower scores associated with higher burnout levels. The (EE range of scores is 0–54, with the highest score of 54 indicating the highest level of burnout. DP is 0–25, with the highest score indicating the highest level of burnout, and PA is 0–48, with the lowest score of 0 indicating the highest level of burnout (Maslach et al., 2018). These scores are summations; the current study uses the mean scores for each burnout subscale.

Maslach et al. (2018) describe administering the MBI-ES through an online survey. The MBI-ES typically takes 10–15 minutes to complete. Clear instructions provided an avenue to contact the researcher in case of questions. Response bias can be minimized by following the instructions, stressing the importance of honest answers, and clearly defining the confidentiality of the survey and the anonymity of their responses. The researcher scored the survey using the ESV file from the Mind Garden platform. At this time, permission has been granted to use the instrument, and the allowed sample questions from the instrument have been included (see Appendix B).

The MBI-ES was selected to measure teacher burnout due to the specificity of the teacher questionnaire directed toward the education system and the unique characteristics of burnout in

education. Previous research has utilized the MBI-ES in education and found the data's three-factor structure to have validity (Maslach et al., 2018) in understanding teacher burnout. Information gleaned from the MBI-ES allows administrators to observe teacher burnout according to teacher location and observe the three different dimensions in the different locations to provide an understanding of the support needed in the various classroom assignments. The three were scored separately among each teacher group. Other studies have used the MBI-ES survey to assess teacher burnout (Camacho et al., 2021; Gilmour et al., 2021; Herman et al., 2020).

Schools and Staffing Survey

Administrative support was measured using five questions from the SASS 4A (Schools and Staffing Survey, n.d.). The different versions of the SASS survey were conducted seven times from 1987–2011 to provide descriptive data on various topics in schools, both private and public (Schools and Staffing Survey, n.d.). The SASS 4A is a publicly available survey; therefore, permission is not needed to use its questions. One of the topics covered included administration characteristics; the 2003–2004 (SASS 4A) survey included five questions regarding administrative support. The most recent version of the survey in 2011–2012 included four of the five questions used by Tickle et al. (2011). The survey uses a 4-point Likert scale with the following ratings: 1 – strongly disagree, 2 – somewhat disagree, 3 – somewhat agree, and 4 – strongly agree (Schools and Staffing Survey, n.d.). The scores positively increase with the teacher's positive perceptions of administrative support. For the current study, the mean score of the five questions was used, with a lower score indicating a higher perception of administrative support, with mean scores between 1 and 4. Lower numbers indicate a greater perception of administration support. The following administrative questions were pulled from

the Teacher Attitudes and School Climate section (a, b, h, k, and m): (a) the principal lets staff members know what is expected of them; (b) the school administration's behavior toward the staff is supportive and encouraging; (h) my principal enforces school rules for student conduct and backs me up when I need it; (k) the principal knows what kind of school he/she wants and has communicated it to the staff; and (m) in this school, staff members are recognized for a job well done (Schools and Staffing Survey, n.d.; Tickle et al., 2011).

SASS is a comprehensive survey administered by the National Center for Education Statistics (NCES), the federal division assigned to collect and analyze data (Tourkin et al., 2007). The SASS 4A is the public teacher questionnaire, as opposed to the SASS 2A, principal survey, and the SASS 3A, school survey. The SASS 4A survey was administered to public school teachers, and the SASS 4B was administered to private school teachers (Tickle et al., 2011). The current study surveyed public school teachers; therefore, the SASS 4A was selected. Using results from a principal component analysis using data collected from teachers, Tickle et al. (2011) provided evidence for combining the scores of the five items and calculating the mean to create a composite score. Tickle et al. (2011) reported a mean of 3.31 when reverse coding. It was also noted that the questions indicate the teachers' perceptions of administration support (Tickle et al., 2011).

The five questions from the SASS 4A were presented to the participants in an online survey. The MBI-ES survey was administered on the Mind Garden Transform website. The current study utilizes a customizing feature on the Mind Garden Transform website to include the MBI-ES and the administration questions.

The five questions from the SASS 4A were used to understand the teachers' perceptions of administrative support. Previous research has used these five questions to study teachers'

perceptions of administrative support (Tickle et al., 2011). Information gathered from the five administrative questions helped understand teachers' perceptions of administrative support and burnout.

Procedures

Upon approval of the school district, the proposal was submitted for approval. An Institutional Review Board (IRB) application was submitted through the Liberty University IRB board (See Appendix C). When approval was granted, the research plan was submitted to the school district's research board; preliminary approval was granted. Permission has been given to use the MBI-ES instrument (see Appendix B). Upon final approval, the data collection began.

During the data collection phase, the special education coordinators and principals were emailed to gain support and access to teacher emails. Then, all general and special education teachers who met the criteria were sent an introductory email regarding the purpose of the survey and a link to click, which infers agreement to participate in the study. Upon clicking the link to the survey, the teachers were presented with the consent form (see Appendix D); upon clicking agree on the consent form, teachers were given immediate access to the MBI-ES toolkit, the five SASS 4A questions, and demographic questions. Only teachers currently teaching in the 2022–2023 school year were included in the study. Within the email, a request was made for voluntary participation and an assurance of anonymity of their responses. The teachers were instructed to set aside 10–15 minutes to complete the survey. A reminder email was sent the following week to remind participants to complete the survey. After two weeks, enough samples had yet to be returned to provide a balanced sample; the survey was resent. After an IRB revision, the survey was shared through social media platforms to draw the remaining needed samples from surrounding school districts. Data were collected through the online platform

https://www.mindgarden.com, and permission was obtained to use the MBI survey (Mind Garden, 2019). Permission was not needed to use the SASS 4A. as it is a publicly available survey. Data were then analyzed using the Statistical Package for the Social Sciences (SPSS) and reported.

The groups were determined based on their teaching setting during the 2022–2023 school year. There were 76 teachers with varying numbers of participants in each category: general education core content teachers, special education resource/inclusion teachers, and special education self-contained teachers. A minimum of 57 participants were included to allow for data that may need to be excluded; thus, 57 was the total sample size, with 19 teachers in each of the three categories.

The information was held securely during all research stages, including data collection. The data, including demographic questions, MBI, and five administrative support questions, were collected anonymously through the mindgarden.com website using their no-login method, which does not require a login or email address. The researcher was the only person with access to the data collected, which was stored on a password-protected flash drive. When the flash drive was not being used, it was stored in a locked filing cabinet, with the only person with access to the key being the researcher. The data will be stored for five years upon completion of the study.

Data Analysis

The MANOVA was used in the data analysis of research to discover if there was a difference in the linear combination of burnout dimensions of EE, DP, and PA among general education core content teachers, special education self-contained teachers, and special education resource/inclusion teachers. Initially, the plan was to run a MANCOVA, but the covariate did not

meet the assumption of linear relationships; thus, the MANCOVA was not significant, and a MANOVA was run. Dattalo (2013) discusses the analytical strengths of using MANOVA:

1. By measuring several DVs the researcher improves the chance of discovering what changes as a result of different treatments and their interactions;
2. Protection against inflated type I error as a result of multiple tests of (likely) correlated DVs; and
3. Group differences, not evident in separate ANOVAs, may become apparent. Consequently, MANOVA, which considers DVs in combination, may be more powerful than separate ANOVAs.

According to Dattalo (2013), there are limitations to running a MANOVA. He states that it is more challenging to satisfy the assumption of equality of variance. Another limitation is that the interpretation of the effects of the independent variable on the dependent variables is not always clearly understandable. A third limitation is that the MANOVA is not always more powerful than the ANOVAs and is often considered less powerful. Finally, a limitation of the MANOVA is that when there is more than one dependent variable, there may be a repetition of outcomes.

The MANOVA was selected as it allows for comparing three or more independent variable categories to study the differences between two or more dependent variables among the categories (Dattalo, 2013). In the current study, the categories in the independent variable were the three classroom assignments of teachers in general education core content classes, special education self-contained, and special education resource/inclusion with continuous multivariate dependent variables of burnout dimensions, including EE, DP, and PA. The MANOVA was used to control for the variances in the categorical independent variable of the teaching in different

classroom settings and multiple continuous dependent variables of the burnout dimensions. The MANOVA was chosen for the current study to allow for research to use an inferential statistic to examine if there was a difference in a multivariate set of dependent variables of the burnout dimensions among three independent categories of general education teachers, special education self-contained teachers, and special education resource/inclusion teachers.

Data screening took place and included a visual screening of the data to allow the researcher to look for any missing data points and independent observations to ensure participants were in only one group. Then, using boxplots, it was determined if any extreme outliers would affect the groups' mean scores. These were not excluded based on the possibility of extreme burnout. Next, the following assumptions were tested (Laerd Statistics, n.d.).

First, the assumption of two or more dependent variables was met on a continuous level. This was met using the MBI-ES burnout scales of emotional exhaustion, depersonalization, and personal accomplishment. Thus, the two or more dependent variables on a continuous level were emotional exhaustion, depersonalization, and personal accomplishment.

Secondly, the assumption of having an independent variable with two or more categorical independent groups was tested. This was met with the independent variable of three teacher groups. The three independent categorical teacher groups are general education core content teachers, special education self-contained teachers, and special education resource/inclusion teachers.

Thirdly, the assumption of independence of observations was tested. This was met by establishing no relationships among the groups in the research through independent observations. There were different participants in each group, as established by unique identifier numbers

assigned to each participant and the inability to take the survey more than one survey from each IP address.

Fourthly, the assumption of no significant univariate or multivariate outliers was tested. The assumption of univariate outliers was tested using residual plots. The assumption of no multivariate outliers was tested using Mahalanobis distance values for significant group–dependent variable combinations ($p > .001$).

Fifthly, the assumption of multivariate normality was tested. This was tested using the Shapiro-Wilks test of normality. Multivariate normality assures that the data for each group is normally distributed.

Sixthly, the assumption that there is no multicollinearity. This was tested using Pearson correlation. The assumption of multicollinearity tests the correlation between the dependent variables. It is ideal to have moderate correlations between the variables.

Seventhly, the assumption is that there should be linear relationships between the dependent variables within each group of independent variables. This was tested using scatterplots and individual linear regressions. There needs to be linear relationships between the burnout subscales for each teacher group.

Eighthly, the assumption of adequate sample size was tested. Larger sample sizes are better. However, the minimum is to have as many cases in each independent variable as the number of dependent variables. Between Subjects Factors table was used to test the assumption of adequate sample size.

Ninthly, the assumption of homogeneity of variances and covariances was tested. This was tested using Box's M. The assumption is met if there is no statistically significant ($p > .001$).

Tenthly, the assumption of homogeneity of variances was tested. This was tested using Levene's Test of Equal Variances. The assumption is to test equal variances between the teacher groups for each burnout scale. If the test is not statistically significant, then the assumption has been met and there are equal variances ($p > .05$).

The hypothesis was tested using the *F*-statistic to test whether the means of the dependent variables among the categories of teachers were statistically significantly different. The MANOVA is an omnibus test and only indicates if individual variable categories of teachers are significantly different based on the dependent variable (Laerd Statistics, n.d.). If the MANOVA results indicate a significant difference, post hoc tests of multiple one-way analyses of covariance (ANOVA) were run to determine the significant differences within the dependent variables of burnout dimensions. A MANCOVA was initially planned but failed to meet the assumption of linear regression; therefore, the MANOVA was used. The null hypothesis was set to be rejected at the 95% confidence level with the alpha set at $\alpha = .05$

CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative, causal-comparative study was to determine if there is a difference in the burnout dimensions of EE, DP, and PA among the middle school and upper school teacher groups of general education, special education self-contained, and special education resource/inclusion. Chapter Four includes the results of the analysis of the survey distributed to teachers. The research question and hypothesis are presented, then the descriptive statistics, and finally, the results are presented.

Research Question

RQ1: Is there a difference among general education, special education self-contained, and special education resource/inclusion teachers' emotional exhaustion, depersonalization, and personal accomplishment burnout?

Null Hypothesis

$H_0$1: There is no significant difference among general education, special education self-contained, and special education resource/inclusion teachers' emotional exhaustion, depersonalization, and personal accomplishment burnout as measured by Maslach's Burnout Inventory – Educational Survey.

Descriptive Statistics

A total of 76 participants responded and completed the survey. The school district provided the email list; 819 emails were sent during the last week of school. However, this was the email list for all middle and high school teachers; therefore, there were teachers in this group who did not qualify for the survey. The recruitment email and the consent form were both clear to recruit only those who qualify within the research parameters to complete the survey. After the

first round of emails, 16 participants completed the survey. After the second round of emails, there were 28 respondents, with 22 being in the general education group. An IRB revision was made and approved to post to social media sites to reach teachers from the surrounding school districts (included with the original IRB submission and approval). The recruitment flyer was posted to local Facebook and Twitter teacher and community groups. Eighteen days after posting to the social media groups, there were 76 respondents: 28 general education teachers, 19 special education self-contained, and 29 special education resource/inclusion. The demographics for the randomly selected sample teacher groups are in Table 3.

The decision had been made to run equal groups when planning the research, so equal groups were formed. According to Gall et al. (2007), multivariate analyses are sensitive to violations, and equal groups can help prevent violations. A MANOVA analysis was run using the whole sample with unequal groups, and it violated the assumption of homogeneity of regression $p = .02$. This confirmed the decision to use randomly selected equal groups. Thus, there were randomly selected participants in each teacher group. Each randomly selected teacher group was comprised of 19 teachers.

Initially, the decision had been made to use a MANCOVA using the covariate of administrative support; however, the MANCOVA failed to meet the assumption of linear regression. Therefore, the decision was made to proceed with the MANOVA. The three burnout dimensions and the five SASS 4A questions generated mean and total scores from each participant's responses. The current study used the mean scores for each burnout subscale for the analysis. The MBI-ES manual suggested using the mean scores to ease the interpretation of the results (Maslach et al., 1996). All questions were scored on a 0–6 frequency scale of 0 (never) to 6 (daily). EE and DP were interpreted as higher scores, indicating higher burnout. PA uses

reverse coding of lower scores, indicating higher levels of burnout. The current study used five questions from SASS 4A's perception of administration support. Lower scores indicated a higher level of perceived administration support.

The means and standard deviation for the burnout scales of EE, DP, and PA by teacher group are presented in Table 4. The scores indicated that special education resource/inclusion teachers had higher levels of EE (3.22) and lower levels of PA (4.86). General education teachers had lower levels of EE (2.01) and DP (.86). Special education self-contained teachers showed the highest levels of DP (1.21).

Table 4

Means and Standard Deviations for the Three Burnout Dimensions for Equal Teacher Groups

	Burnout Scales		
	EE	DP	PA
Teacher Group	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)
Gen Ed	2.01(1.12)	.86(.84)	5.06(.58)
SpecEd Self-Cont	2.82(1.58)	1.21(1.18)	5.13(.52)
SpecEd Res/Inc	3.22(1.22)	.96(.87)	4.86(.81)

Note. EE - Emotional Exhaustion, DP – Depersonalization, PA – Personal Accomplishment

M – Mean

The initial plan used the covariate of perception of administration support and was surveyed through five questions from the SASS 4A. There was no missing data, and all questions were answered by all participants who took the survey. The mean scores for each question are reported in Table 5.

Table 5

Means and Standard Deviations for Administration Support for Equal Teacher Groups

	Administration Support		
Teacher Group	*n*	*M*	*SD*
Gen Ed	19	1.90	.71
SpecEd Self-Cont	19	1.72	.72
SpecEd Res/Inc	19	1.85	.58

Results

To address the hypothesis, a MANOVA was employed to investigate the differences among the three distinct teacher groups with respect to the three dependent variables of burnout dimensions of EE, DP, and PA. The MANOVA was chosen to assess whether there were differences in the vector of dependent variables between the group membership. The independent variable represented the teacher groupings based upon their position: general education teacher groups, special education self-contained, and special education resource/inclusion, and the dependent variables: emotional exhaustion, depersonalization, and personal accomplishment.

Table 4 displays the means and standard deviations for each dependent variable across the three teacher groups. Scores for EE were highest for special education resource/inclusion teachers (3.22). Depersonalization was highest for the special education self-contained teacher group (1.21). Personal accomplishment used reverse coding, indicating the special education resource/inclusion teacher group had the lowest score of 4.86. Statistical significance was used to evaluate the results using an alpha level of .05.

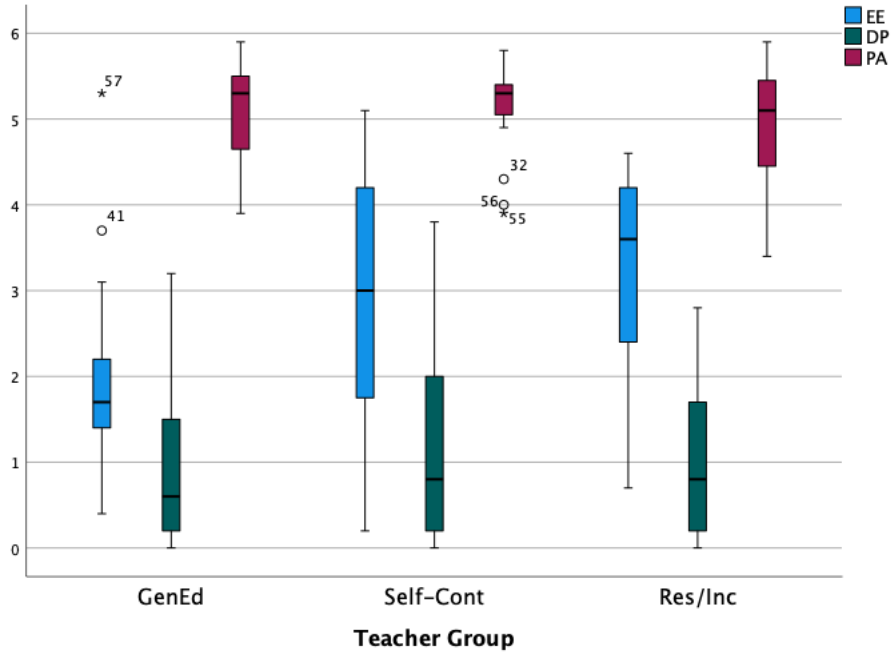
Assumption Tests

The data were screened for inconsistencies and significant outliers. The visual data screening, which looked for missing data points or inconsistencies in actual scores, showed no

issues. Independent observations were observed to ensure that participants were only in one group through the Mind Garden Transform website's use of a unique identification code when collecting data anonymously. The unique identifier was used to track individual responses while keeping the participants' responses anonymous. The Mind Garden website also used IP address tracking to limit the survey to one response per IP address. The IP addresses were kept for one month to prevent participants from submitting multiple responses using the same device or network. Boxplots were used to determine whether extreme outliers would affect the groups' mean scores (see Figure 1). The outliers were not excluded based on the possibility of extreme burnout. The data screening met the assumptions supporting the use of MANOVA. Prior to running MANOVA, the following assumptions were tested.

Figure 1

Boxplots



The first assumption requires two or more dependent variables on a continuous scale. This was met by using the MBI-ES burnout scales of EE, DP, and PA. The assumption of the dependent variable on a continuous scale was met using MBI-ES, which is on a 7-point scale.

The second assumption was having an independent variable with two or more categorical independent groups. This was met with the independent variable of three teacher groups. The three independent categorical teacher groups are general education core content teachers, special education self-contained teachers, and special education resource/inclusion teachers. Using the demographic survey, teachers self-identified as a general education core content teacher, a special education core content teacher, or a special education resource/inclusion core content teacher. Teachers could not identify in more than one group.

The third assumption of independence of observations was met by establishing that there are no relationships among the groups themselves in the research through independent observations. Using the demographic survey, each teacher was assigned a unique identifier. Each group had different participants, as confirmed by the unique identifier assigned to each participant and limited to one unique identifier per IP address.

The fourth assumption is that there are no significant univariate or multivariate outliers. The assumption of no significant univariate outliers was met in the teacher groups in the three dependent variables. This assumption identifies if any scores are unusually high or low. The high or low outliers could have a negative effect on the results as they could influence the mean data for the group. The data had no univariate outliers as assessed by standardized residuals ± 3 standard deviations. The three standard deviations are a common determinant in determining univariate outliers (Laerd Statistics, n.d.). Thus, the assumption of no significant univariate outliers was met. The assumption of no multivariate outliers in the groups in terms of each

dependent variable. Multivariate outliers are the participants that have an unusual combination of survey results. Using Mahalanobis distance with the linear regression technique, it was determined that there were no multivariate outliers that would affect the groups' mean scores as assessed by Mahalanobis distance ($p > .001$) values greater than the cut-off point of 16.27 for three dependent variables.

The fifth assumption is multivariate normality. This was tested using the Shapiro-Wilks test of normality. The assumption that residuals should be approximately normally distributed for each group tests the normal distribution of the residuals for each group for all the dependent variables. When multiple tests are run, a multiplicity adjustment can be considered for the nine Shapiro-Wilk tests in this analysis and, therefore, was considered when interpreting the results (Laerd Statistics, n.d.). Burnout residuals were normally distributed for each teacher group, as assessed by Shapiro-Wilk's test ($p > .05$) when Bonferroni's adjustment was made for multiple tests ($p > .0056$). See Table 6 for assumption results. The assumption of normality was met.

Table 6

Test of Normality

		Shapiro-Wilk		
Residuals for:	Teacher group	Statistic	*df*	Sig.
EE	GenEd	.86	19	.01
	Self-Cont	.95	19	.04
	Res/Inc	.89	19	.03
DP	GenEd	.88	19	.02
	Self-Cont	.89	19	.03
	Res/Inc	.90	19	.05
PA	GenEd	.94	19	.28
	Self-Cont	.79	19	.001
	Res/Inc	.91	19	.08

Note: Bonferroni adjustment p < .0056 (i.e., .05 ÷ 9 = .0056)

The sixth assumption is that there should be no multicollinearity, which was met through Pearson's correlation. The assumption of no multicollinearity determines if the dependent variables are moderately correlated. It is ideal if the dependent variables are moderately correlated; therefore, there is no multicollinearity. To test for multicollinearity, a Pearson correlation was used with the following results: PA/EE r = -.48, p <.001 (moderate correlation), EE/DP r = .56, p <.001 (high correlation), and DP/PA r = .41 p = .001 (moderate correlation), (Warner, 2021). The results of this showed that multicollinearity was not a concern.

The seventh assumption is the linear relationships between the dependent variables within each group of independent variables. Scatterplots were used to assess the linearity of the MANOVA (See Figures 2, 3, and 4). Further analysis was conducted through individual linear regressions to examine the relationships between dependent variables. The findings of the linear regressions indicated that in the general education teacher group, four of six pairs were linearly related; in special education self-contained, six of six pairs were linearly related; and in special education resource/inclusion, two of six displayed linear relationships (Figure 5). Therefore, evidence was provided between the heat map and the scatterplots to meet the assumption of linear relationships between the dependent variables within each independent variable group.

Figure 2

Scatterplot Matrix: General Education Teacher Group

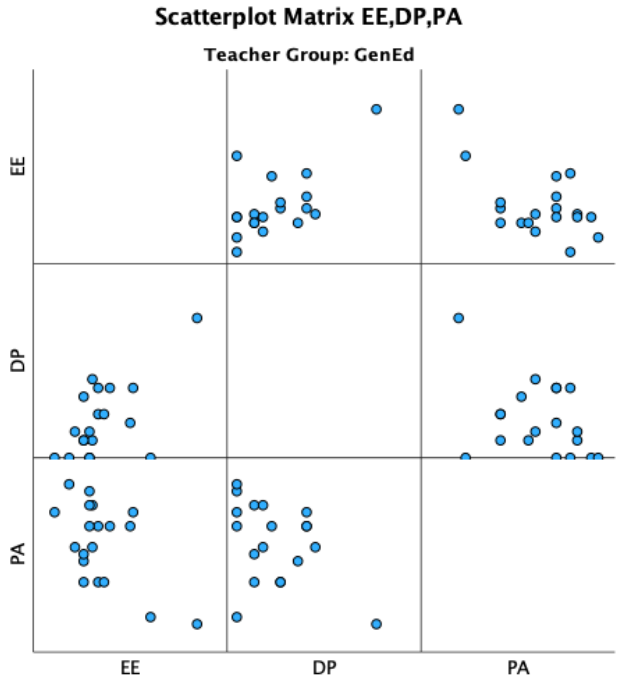


Figure 3

Scatterplot Matrix: Self-Contained Teacher Group

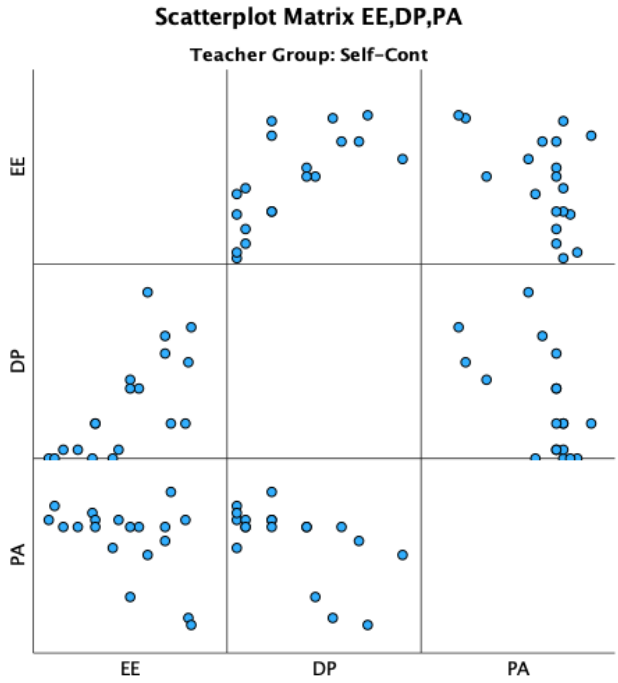


Figure 4

Scatterplot Matrix: Resource/Inclusion Teacher Group

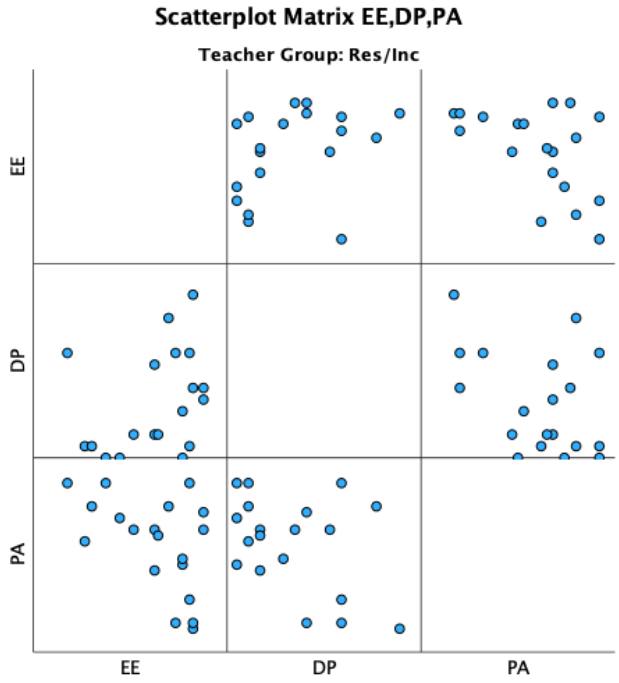


Figure 5

Linear Regression Heat

General Education

	PA	DP	EE
PA		.92	.01
DP	.92		.004
EE	.01	.004	

Special Education Self-Contained

	PA	DP	EE
PA		.01	.04
DP	.01		.001
EE	.04	.001	

Special Education Resource/Inclusion

	PA	DP	EE
PA		.08	.03
DP	.08		.17
EE	.03	.17	

Legend

$p < .05$
$.06 < p < .25$
$.26 < p < .50$
$.51 < p < .75$
$.76 < p < .99$

Note. Linear relationships are significant when $p < .05$

The eighth assumption of adequate sample size was met. The minimum is to have as many cases in each independent variable as the number of dependent variables, which would be three teachers in each group as there are three dependent variables. Between Subjects Factors table was used to test the assumption of adequate sample size. There were 19 teachers in each group, as represented in Table 7.

Table 7

Between-Subjects Factors

	Between-Subjects Factors		
		Value Label	*N*
Teacher Group	1	GenEd	19
	2	Self-Cont	19
	3	Res/Inc	19

The ninth assumption is the homogeneity of variances and covariances. The assumption of homogeneity of variances and covariances was met when the variances and covariances of the dependent variables were equal in all groups. Box's M, $p > .001$, was used to assess the homogeneity of variances and covariances. The results of Box's M test of equality of covariances were $p = .33$ (See Table 8). Thus, the assumption has been met.

Table 8

Box's M Test of Equality of Covariances

Box's M	*F*	*df1*	*df2*	Sig.
14.70	1.13	12	14131.39	.33

The tenth assumption of homogeneity of variances determined if there were equal variances between the independent variable groups. There was homogeneity of variances as assessed by Levene's test of equal variances ($p > .05$). The results were EE $p = .10$, DP $p = .10$, and PA $p = .07$. The assumption of homogeneity of variances was met.

MANOVA Results

A one-way multivariate analysis of variance (MANOVA) was run to determine the differences between teacher groups' burnout. Three subscales of burnout were assessed: emotional exhaustion, depersonalization, and personal accomplishment. Teacher groups were formed from teaching assignments of general education, special education self-contained, and

special education resource/inclusion. Preliminary assumption determined the data was normally distributed as assessed by the Shapiro-Wilks test ($p > .05$) when Bonferroni's adjustment was made for multiple tests ($p > .0056$). There were no univariate or multivariate outliers as assessed by standardized residuals and Mahalanobis Distance ($p > .001$), respectively. There were linear relationships as assessed by scatterplots and linear regressions. There was no multicollinearity as assessed by Pearson's correlation (PA/EE $r = -.48$, $p < .001$; EE/DP $r = .56$, $p < .001$; DP/PA $r = .41$ $p = .001$). There was homogeneity of variances and covariances as measured by Box's M test ($p = .33$). Teacher groups general education, special education self-contained, and special education resource/inclusion scores indicate higher EE burnout in the latter group ($M = 2.01$ $SD = 1.12$, $M = 2.82$ $SD = 1.58$, $M = 3.22$ $SD = 1.22$, respectively). Teacher groups general education, special education self-contained, and special education resource/inclusion scores indicate higher DP burnout in the self-contained group ($M = .86$ $SD = .84$, $M = 1.12$ $SD = 1.18$, $M = .96$ $SD = .87$, respectively. The teacher groups: general education, special education self-contained, and special education resource/inclusion scores indicate higher PA burnout (reverse coding) in the latter group ($M = 5.06$ $SD = .58$, $M = 5.13$ $SD = .52$, $M = 4.86$ $SD = .81$, respectively).

The results of the MANOVA were as follows. The differences between the teacher groups on the combined dependent variables were statistically significant, $F(6,104) = 2.07$, $p = .04$, partial $\eta 2 = .12$ (See Table 9). An effect size of .12 is a high-medium effect size. Effect size measures the strength of the difference, with the larger the effect size indicating a greater difference (Gall et al., 2007). Follow-up univariate ANOVA showed that EE scores were statistically significantly different $F(2,54) = 4.17$, $p = .02$, partial $\eta 2 = .13$. DP was not statistically significantly different among teacher groups DP ($F(2,54) = .64$, $p = .53$, partial $\eta 2 = .02$), and neither was PA ($F(2,54) = .88$, $p = .42$, partial $\eta 2 = .03$), using a Bonferroni adjusted a

level of .025. Therefore, the researcher can reject the null hypothesis based on the MANOVA results.

Table 9

MANOVA Results for Equal Teacher Groups

	Value	*F*	Hypothesis *df*	Error *df*	Sig.	Partial Eta Squared
Wilks' Lambda	.78	2.07	6	104	*.04	.12

Note. Statistically significant when *$p < .05$

Tukey posthoc test one-way ANOVAs were run to determine the burnout for the different teacher groups with the burnout subscales. Participants were classified into three equal teacher groups: general education ($n = 19$), special education self-contained ($n = 19$), and special education resource/inclusion ($n = 19$). The burnout scale EE was statistically significantly different between the teacher groups of general education and special education resource/inclusion, $F(2,54) = 4.17$, $p = .02$, partial $\eta 2 = .13$. EE scores increased from the general education teacher group ($M = 2.01$, $SD = 1.12$) to the special education self-contained group ($M = 2.82$, $SD = 1.58$) to the special education resource/inclusion group ($M = 3.22$, $SD = 1.22$), in that order. Tukey post hoc analysis showed that the mean increase of EE from general education to special education resource/inclusion (.811, 95% *CI* [-.23, 1.84]) was statically significant (p = .02), but no other group differences were statistically significant.

The follow-up tests provided more information. Tukey posthoc tests showed that the only statistically significant difference was in the burnout dimension EE; teachers from special education resource/inclusion had a statistically significantly higher mean score than teachers from the general education group ($p = .02$) using a Bonferroni adjusted level of .025. The remainder of the p-value is shown in Table 10. The only statistically significant difference

identified in the Tukey post hoc test was in EE. Figure 5 represents the mean burnout dimension scores between the teacher groups.

Table 10

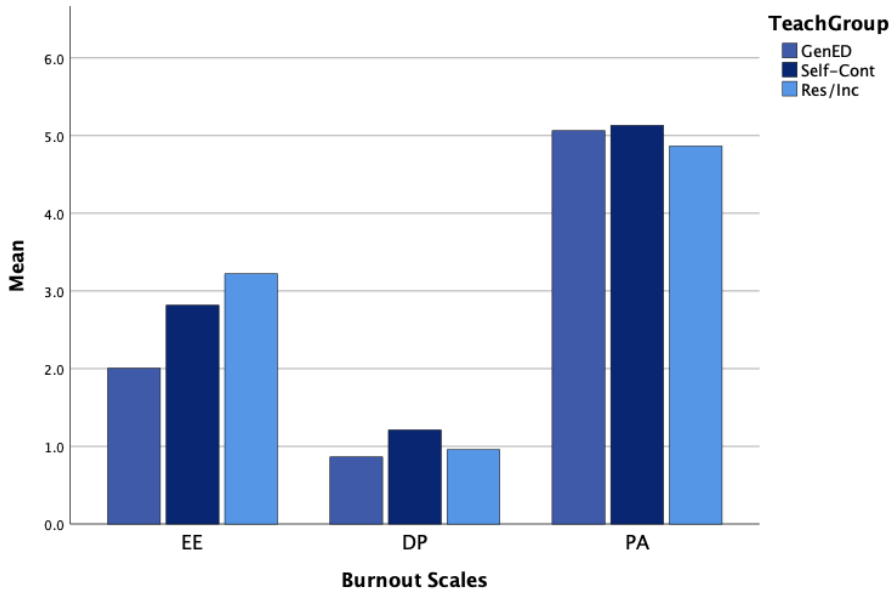
Tukey Posthoc Tests Multiple Comparisons

DV	(I)Teacher Group	(J)Teacher Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
EE	GenEd	Self-Cont	-.81	.43	.15	-1.84	.22
		Res/Inc	-1.22	.43	.02	-2.25	-.18
	Self-Cont	GenEd	.81	.43	.15	-.22	1.84
		Res/Inc	-.41	.43	.61	-1.44	.63
	Res/Inc	GenEd	1.22	.43	.02	.18	2.25
		Self-Cont	.41	.43	.61	-.63	1.44
DP	GenEd	Self-Cont	-.35	.32	.52	-1.11	.42
		Res/Inc	-.10	.32	.95	-.86	.67
	Self-Cont	GenEd	.35	.32	.52	-.42	1.11
		Res/Inc	.25	.32	.71	-.51	1.02
	Res/Inc	GenEd	.10	.32	.95	-.67	.86
		Self-Cont	-.25	.32	.71	-1.02	.51
PA	GenEd	Self-Cont	-.07	21	.94	-.58	.44
		Res/Inc	.20	21	.61	-.31	.71
	Self-Cont	GenEd	.07	21	.94	-.44	.58
		Res/Inc	.27	21	.42	-.24	.78
	Res/Inc	GenEd	-.20	21	.61	-.71	.31
		Self-Cont	.27	.21	.42	-.78	.24

Note. Bonferroni Adjustment for two contrasts $p = .025$.

Figure 6

Bar Graph Representing Mean Burnout Dimension Scores by Teacher Group



Note. There were statistically significant differences between general education and special education resource/inclusion teachers in EE. No other statistically significant differences were found.

Summary

The purpose of this quantitative, causal-comparative study was to determine if there is a difference in the burnout dimensions of emotional exhaustion, depersonalization, and personal accomplishment among the middle school and upper school teacher groups of general education, special education self-contained, and special education resource/inclusion. A MANOVA analysis was used, with results indicating a significant difference. Initial plans were to use a MANCOVA with administrative support as the covariate as the research supported, but the MANCOVA failed to meet the assumption of linearity. Assumption testing showed no significant relationship between the dependent variable of burnout dimensions and the covariate of administration support. Therefore, the decision was made to run a MANOVA. The findings of the MANOVA

were statistically significant, indicating statistically significant differences in burnout dimensions among the teacher groups. The post hoc testing showed a statistically significant difference among general education and special education resource/inclusion teacher groups in the burnout dimension of emotional exhaustion. The null hypothesis for the MANOVA was rejected.

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of this quantitative, causal-comparative study was to determine if there is a difference in teacher burnout among the classroom assignments of general education, special education self-contained, and special education resource/inclusion teachers teaching in sixth through 12th grade. The problem is that the literature needs to fully address the differences in the burnout scales of EE, DP, and PA between the three teacher groups. Differences in the burnout scales between the three teacher groups and the current body of literature on the influence of burnout on teachers were examined. This chapter presents the study overview, implications, limitations, and recommendations for further research.

Discussion

Burnout scales were measured using MBI-ES. The groups were taken from suburban school districts. A total of 76 teachers responded to the survey. Random selection was used to make equal groups of 19. Analysis of the data and the results for the research question follow. Included are the research question and null hypothesis for MANOVA analysis.

Research Question

RQ1: Is there a difference among general education, special education self-contained, and special education resource/inclusion teachers' emotional exhaustion, depersonalization, and personal accomplishment burnout?

Null Hypothesis

$H_0$1: There is a significant difference among general education, special education self-contained, and special education resource/inclusion teachers' emotional exhaustion,

depersonalization, and personal accomplishment burnout as measured by Maslach's Burnout Inventory – Educational Survey.

The original null hypothesis included the covariate of perceived administration support. However, since the covariate did not satisfy the assumption of linearity, the null hypothesis was reformulated without using a covariate. There was a significant difference in the burnout dimensions between teacher groups, leading to the rejection of the null hypothesis ($H_0$1**)**.

When running the MANOVA, there were differences between the three teacher groups of general education, special education self, contained, and special education resource. Previous research identifies burnout among general education teachers ((Benita et al., 2019; Gilmour et al., 2021; McLean et al., 2019), special education self-contained teachers (Billingsley & Bettini, 2019; Gilmour et al., 2021), and special education resource/inclusion teachers (Gilmour & Wehby, 2020; Saloviita & Pakarinen, 2021). Burnout has been identified as a problem in the education system. Prior studies provide research in the utilization of MBI-ES, previously identified educator burnout, comparison of EE in previous research in the teacher groups, general education teachers who may have students with disabilities in their classrooms, and how educators perceived administrative support plays a role in teacher burnout.

Multiple studies used MBI-ES in their study of teacher burnout. Several studies used the MBI-ES to study general education teacher groups (Benita et al., 2019; Herman et al., 2020; McLean et al., 2019). Other studies used MBI to research special education teachers (Bettini et al., 2018; Gilmour et al., 2021; Langher et al., 2017; Ruble & McGrew, 2013). Gilmour and Wehby (2020) touched on the different challenges in all three groups. However, the current study researched the differences in burnout among the three teacher groups. While the aforementioned research findings indicate that all teacher groups struggle with burnout to some extent, the

current study differentiated the burnout scales between three teacher groups. In prior research utilizing the MBI-ES in teacher burnout research, Gilmour et al. (2021) compared the burnout profiles between general and special education teachers who had students with emotional/behavior disorders. While the results of the study were focused on profiles with classroom management, the scores reported for MBI-ES between the two teacher groups indicated higher. EE among special education teachers with a score of 20.78 (mean score of 2.31), while general education teachers scored 2.79 (mean score of .31). In comparison, the current study found special education resource inclusion to have an EE mean score of 3.22, special education self-contained EE mean score of 2.82, and general education mean score of 2.01. The current study and Gilmour et al. indicate a higher EE among special education teachers than general education teachers.

Findings in prior studies indicate burnout among educators. With EE being the burnout scale that indicated a statistically significant difference among teacher groups, other studies had similar results among teacher groups. The current study found the mean score of EE to be 2.1 among general education teachers. A study of 324 Sicilian primary teachers with a combined score for general and special education teachers found the EE mean score to be 2.35 (Pellerone et al., 2020). Another study of the effect of the school level on burnout found lower secondary general education teachers to have an EE mean score of 2.23 (Pedditzi et al., 2021).

Different findings in previous studies indicate lower levels of burnout among teacher groups. In the current study, special education self-contained teachers had an EE mean score of 2.82, and special education resource inclusion teachers had an EE mean score of 3.22. Langher et al. (2017) found that special education resource inclusion teachers had a mean EE score of 1.61, substantially lower than the general education group in the current study. Langher's study was to

find the relationship between perceived support and special education teachers in secondary schools, which found decreased burnout in EE and PA when teachers perceived support. Jovanović et al. (2019) found the EE mean score among special education teachers to be 2.30. The results of both studies indicate a mean score for special education teachers that is substantially lower than the current study.

Another interesting comparison is prior research addressed general education teachers instructing students with disabilities as increasing the potential for teacher turnover (Gilmour & Wehby, 2020). The current research did not address the possibility of general education teachers who may have had students with disabilities in their classrooms. The current research may have had general education teachers with students who receive inclusion services. However, this category was not addressed in the current research, and as clarified in the consent form, the primary role was that of a general education core content teacher. However, as Gilmour and Wehby (2020) discussed the potential for other demands of having a student with disabilities, the current research identified the differences between the three teacher groups, including special education teachers. When running the MANOVA, significant differences were identified between the EE of special education resource/inclusion teachers and general education teachers. In contrast to Gilmour and Wehby (2020), the current study addressed the teacher role. It did not account for general education teachers who may have had students with disabilities included in the general education classroom.

The initial plan was to run a MANCOVA with perceived administrative support as the covariate. Literature supported the influence of administrative support on the general education group (Jensen & Solheim, 2020; Molero Jurado et al., 2019; Öztürk et al., 2021). Likewise, Gilmour et al. (2021) found the importance of support among special education teachers.

However, the survey used in the current study was not used in the previously mentioned research. The five questions from SASS-4A define the current study's attributes of perceived administration support; maybe results would be different had a different scale been used. Öztürk et al. (2021) used the School Culture Scale, which had some similar questions but also went into greater depth with 29 questions and was broken down into different types of school culture. The study concluded that to decrease burnout and low self-efficacy, the schools should focus on the culture, particularly the administrative and success cultures. A study that used the SASS-4A questions found that administrative support was a significant factor in teachers' contentment with their profession (Tickle et al., 2011).

In conclusion, burnout has been identified as problematic in the education system. Prior studies provide research in utilizing MBI-ES, previously identified educator burnout, and compared EE in previous research in the teacher groups. General education teachers may have students with disabilities in their classrooms, and how educators perceive administrative support plays a role in teacher burnout. The current study found a significant difference in the burnout scale EE between general education and special education resource/inclusion teachers. It is possible that with burnout, particularly emotional exhaustion, being significant among educators, it leads to scores indicating a need for all educators to address their emotional exhaustion, regardless of the teacher's role. However, the results of this study indicate a difference between two of the teacher groups, which leads to the questions of how schools, administrators, and politicians are addressing the issue of emotional exhaustion and if care will be taken to recognize the different needs between teacher groups in the schools.

Implications

There was a statistically significant difference found when running the MANOVA. The follow-up ANOVAs indicated a significant difference in emotional exhaustion among general education teachers and special education resource/inclusion teachers. Follow-up univariate ANOVA showed that EE scores were statistically significantly different $F(2,54) = 4.17$, $p = .02$, partial $\eta 2 = .13$ using a Bonferroni adjusted level of .025. The mean scores for EE were statistically significantly higher for special education resource/inclusion teachers (3.22) versus general education teachers (2.01). Implications could build on the body of research regarding teacher burnout, including the increase of general education increase in EE, the significant difference between EE among general education teachers and special education resource/inclusion, the influence of work demands, and the influence of administration support.

First, the current research found significant differences in the burnout scales between the teacher groups of general education and special education resource/inclusion, and the findings provided additional evidence of teacher burnout. Gilmour et al. (2021) identified that the MBI classifications of general education teachers have low EE, low DP, and high PA, while the special education teachers they surveyed indicated moderate EE, low DP, and high PA. The cutoff points identified by Gilmour et al. (2021) were in total scores and translated to the following mean score ranges: Emotional Exhaustion 0 - 1.8 low, 1.9 – 2.9, moderate, > 3.0 high; Depersonalization 0 – 1.2 low, 1.4 – 2.4 moderate, > 2.6 high; Personal Accomplishment 0 – 3.8 low, 3.9 – 4.5 moderate, > 4.6 high. The current research found that general education teachers have moderate EE, low DP, and high PA; special education self-contained teachers have moderate EE, low DP, and high PA; special education resource/inclusion teachers have high EE, low DP, and high PA.

This current research adds to the existing research by examining differences in the burnout scales between the three teacher groups. No differences were found between the three teacher groups in DP and PA. Differences were found in EE between general education and special education resource/inclusion. Special education resource/inclusion teachers showed high emotional exhaustion, and emotional exhaustion among general education teachers increased from previous research (Gilmour et al., 2021), moving from low to moderate EE. Special education resource/inclusion teachers' higher EE could be due to their various demands, including special education paperwork, co-teaching, and inclusion support. Previous research recognized increased work demands in special education, including limited planning time (Bettini et al., 2017), workload, deadlines, and paperwork (Hester et al., 2020).

Additional implications from the current research could be made in understanding the influence of the demands in the teaching industry. In the MBI manual, Maslach et al. (2018) reported a finding of Alarcon (2011) of persons with high EE being related to work demands. The current research indicated either moderate or high levels of EE, indicating the high level of demands teachers are experiencing. Administration and state-level school administrators could consider this as they design the school years and consider the future demands they place on teachers.

The administrative support covariate did not indicate linear relationships among the special education self-contained and resource/inclusion groups. The covariate needs to have meaningful relationships among the dependent variables. In the current study, the covariate's influence may not be detectable due to limited linear relationships. However, an interesting note is that the covariate was linearly related to the general education group, indicating a possible relationship between general education teachers' burnout and administrative support. The linear

relationship with the general education group suggests there could be a meaningful association between perceived administration support and the three burnout dimensions among general education teachers.

Additionally, regarding administration support, previous research found decreased burnout when they were provided support through resources (Bottiani et al., 2019). Camacho et al. (2021) identified teacher support as both professional and emotional support and found it to be related to multiple burnout dimensions. Another study identified administration support as taking visible actions, providing support, and regarding teachers as professionals (Hester et al., 2020). Hester et al. also noted that the lack of administration support influences teachers, including feelings of marginalization and leaving the teaching field. This current study has identified administration support as understanding administrative expectations, helping teachers feel supported and encouraged, enforcing school rules, backing teachers, knowing and communicating what type of school they want, and recognizing staff for doing well (SASS 4A). While the questions on this survey align with prior studies of providing support both in the professional realm and providing social-emotional support through supporting and encouraging teachers, this current study did not provide a meaningful influence on the data. Thus, the MANCOVA analysis did not detect the perception of administration support.

In summary, the research implications include the burnout teachers are experiencing among the teacher groups, work demands, and administration support. The research provided interesting results indicating a significant difference in burnout among the general education and special education resource/inclusion teacher groups. The special education resource/inclusion group's EE burnout score indicated high levels of burnout as categorized by Gilmour et al.'s (2021) low, moderate, and high categories of burnout according to MBI scores. Another

interesting piece of the research was the lack of meaningful influence the perception of administration support had on the data. Prior research had identified the importance of recognizing administration support in teacher burnout, but the current research did not identify the relationship.

Limitations

The current study uses a causal-comparative research design, which has difficulty drawing causal conclusions between the groups and the dependent variables. However, Creswell and Guetterman (2012) indicate a level of confidence when drawing causal conclusions. Another limitation of causal-comparative design is manipulating the independent variable (Gall et al., 2007). The current research discusses the following limitations: convenience sampling, anonymous survey collection, and the data collection phase.

Another limitation was in the use of convenience sampling. The convenience sampling for the purpose of the current study was a location geographically near the researcher. The researcher selected a population in which generalizations could be made in suburban school districts. Detailed characteristics were provided, and the sample was identified as appropriate for the research. It has been noted that inferential statistics can be used, but caution is given to generalizing the research until repeated studies contribute to the evidence (Gall et al., 2007).

An additional limitation in the collection of the surveys was that the participant surveys were collected anonymously. Gall et al. (2007) indicate a drawback of using anonymous data collection is the limitations in follow-ups to ensure the survey is being returned. The current study selected anonymous data collection to allow teachers to report burnout honestly. The Mind Garden Transform survey platform used unique identification codes for each participant and tracked the IP address to prevent teachers from multiple responses. The formal IRB consent was

the gateway page to the survey, which should limit teachers completing the form when they may not qualify.

Finally, the data collection phase provided limitations. Due to unforeseen delays, the first round of surveys was distributed in the final two weeks of school, which could have limited the responses due to the time of year for teachers. The initial distribution sent out 819 emails; the initial response rate was modest, with 16 teachers taking the survey the first week and 12 more teachers taking the survey after sending the second email. The researcher recognized the need to boost the survey participation and submitted an IRB revision to include social media posts to reach a broader audience, including the surrounding school districts, as was approved in the original IRB approval. As a result, within two weeks, an additional 53 participants responded to the survey. The exact response rate is unknown due to the unknown reach of the social media campaign. Another data collection limitation was the social media campaign and anonymous survey collection. While the survey parameters are laid out in the official IRB consent and IRB-approved recruiting flyers, there are no safeguards with anonymous collection to ensure the persons completing the survey met the criteria.

The research provided limitations in the areas of sampling, anonymity, and data collection. However, the research took precautions to minimize the influence of the limitations on the study. The research also provided interesting data regarding the covariate in that it did not have a meaningful influence on the research on teacher burnout.

Recommendations for Future Research

Recommendations for further research to advance the knowledge of teacher burnout among teacher groups:

1. A quantitative study among teachers to compare the three teacher groups' burnout scales throughout the school year. This would provide insight into how burnout changes throughout the year and how the changes differ across the three teacher groups. It might be the case that general education teachers start higher but end lower. This might lead to different interventions to support the teachers during the year. This could benefit administrators and teachers by alleviating teacher burnout throughout the school year.
2. A quantitative study to research elementary teachers' burnout scale scores among the three teacher groups. Elementary teachers might experience burnout differently, and this difference may not follow the patterns seen in the current study. Some differences that may contribute to the differences in burnout could be that the elementary general education teachers may be in self-contained classrooms, which would be different from middle and upper school general education teachers who teach by content. The burnout by teacher group would provide research to support elementary teachers' burnout.
3. A quantitative study using a different covariate. Another possible covariate was the teachers' years of experience. Research has supported using teachers' years of experience and influencing burnout (Kim & Burić, 2020; Nuri & Tezer, 2018). Understanding a teacher's years of experience in burnout would help identify strategies to alleviate burnout among teachers.
4. A larger scale study using a large population sample, recruiting teachers nationwide through various teacher group platforms. This would provide a more comprehensive population sample in understanding teacher burnout. The current recommendation addresses the limitation due to the size and sampling in the present study. The sample

size was 57. Convenience sampling, which cannot be generalized to a larger population, was used.

Summary

This quantitative, causal-comparative study aimed to determine if there is a difference in teacher burnout among the classroom assignments of general education, special education self-contained, and special education resource/inclusion teachers teaching in sixth through 12th grade. The overall findings of the MANCOVA were not statistically significant. Results did indicate there was not a linear relationship between the covariate and the dependent variables, which led to the decision to continue the analysis without the use of the covariate of perceived administration support. Furthermore, when removing the covariate of administration support, a MANOVA was run and was statistically significant. The follow-up tests included one-way ANOVAs, which revealed a significant difference between general education and special education resource inclusion teachers in the burnout dimension of Emotional Exhaustion. The null hypothesis ($H_0$1a**)** for the MANOVA was rejected. The findings of the current research show that there are differences in burnout among teacher groups. Future research should seek to advance the understanding of burnout in education among the different teacher groups to alleviate or eliminate burnout.

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APPENDIX A

[redacted] INDEPENDENT SCHOOL DISTRICT

7 February 2023

Kimberly Matthews
Doctoral Candidate
Liberty University
[redacted]

Dear Kimberly Matthews:

After a careful review of your research proposal entitled Teacher Burnout: A Causal-Comparative Study of Classroom Assignment, we have decided to grant you permission to contact our faculty and invite them to participate in your study.

Check the following boxes, as applicable:

☒ We will provide our membership list to Kimberly Matthews, and Kimberly Matthews may use the list to contact our members to invite them to participate in her research study.

☒ We grant permission for Kimberly Matthews to contact middle and high school core content teachers (math, English/language arts/reading, science, and social studies) in the classroom assignments of general education, special education self-contained, special education resource/inclusion to invite them to participate in her research study.

☒ We will not provide potential participant information to Kimberly Matthews, but we agree to provide her study information to middle and high school core content teachers (math, English/language arts/reading, science, and social studies) in the classroom assignments of general education, special education self-contained, special education resource/inclusion on her behalf.

☒ We are requesting a copy of the results upon study completion and/or publication.

Sincerely,

[redacted]

Chief Accountability Officer
[redacted]

APPENDIX B

Consent has been obtained to use the MBI Toolkit, which includes the MBI-ES through www.mindgarden.com. The manual was purchased for use in the research. The following is the granted permission from Mind Garden to use the surveys to purchase the license for the number of surveys needed. Mind Garden requests that the instrument not be published in full, but that three sample questions be used to represent the survey. The questions are included in the permission form. Maslach's Burnout Inventory is copyright protected and not available to be included in its entirety in published research.

www.mindgarden.com

To Whom It May Concern,

The above-named person has made a license purchase from Mind Garden, Inc. and has permission to administer the following copyrighted instrument up to that quantity purchased:

Maslach Burnout Inventory forms: Human Services Survey, Human Services Survey for Medical Personnel, Educators Survey, General Survey, or General Survey for Students.

The three sample items only from this instrument as specified below may be included in your thesis or dissertation. Any other use must receive prior written permission from Mind Garden. The entire instrument form may not be included or reproduced at any time in any other published material. Please understand that disclosing more than we have authorized will compromise the integrity and value of the test.

Citation of the instrument must include the applicable copyright statement listed below.
Sample Items:

MBI - Human Services Survey - MBI-HSS:
I feel emotionally drained from my work.
I have accomplished many worthwhile things in this job.
I don't really care what happens to some recipients.

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MBI - Human Services Survey for Medical Personnel - MBI-HSS (MP):
I feel emotionally drained from my work.
I have accomplished many worthwhile things in this job.
I don't really care what happens to some patients.

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MBI - Educators Survey - MBI-ES:
I feel emotionally drained from my work.
I have accomplished many worthwhile things in this job.
I don't really care what happens to some students.

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Cont'd on next page

MBI - General Survey - MBI-GS:

I feel emotionally drained from my work.
In my opinion, I am good at my job.
I doubt the significance of my work.

MBI - General Survey for Students - MBI-GS (S):

I feel emotionally drained by my studies.
In my opinion, I am a good student.
I doubt the significance of my studies.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

APPENDIX C

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

April 17, 2023

Kimberly Matthews
Janice Kooken

Re: IRB Exemption - IRB-FY22-23-880 Researching the differences in attitudes of teachers towards their work between general education and special education teachers.

Dear Kimberly Matthews, Janice Kooken,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office

APPENDIX D

Consent

Title of the Project: Researching the Differences in Attitudes of Teachers Towards Their Work Between General Education and Special Education Teachers
Principal Investigator: Kimberly Matthews, Doctoral Candidate, School of Education, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be a core content (English/Language Arts/Reading, Math, Science, Social Studies) teacher in middle or high school (grades 6-12) teaching in general education, special education self-contained, or special education resource/inclusion during the 2022-2023 school year. Special Education Self-Contained teachers need to teach in a special education classroom with students who remain in that classroom for their core content. Special Education Resource/Inclusion teachers need to be special education teachers teaching in the setting of a resource classroom or inclusion setting. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to determine if there is a difference in attitudes toward work among general education teachers, special education self-contained teachers, and special education resource/inclusion teachers.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. Participate in an online survey that contains demographic questions and a rating scale with 4-point and 7-point scales (10-15 minutes).

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include understanding how teacher attitudes toward work affect teachers in different classroom assignments.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher and faculty sponsor will have access to the records.

- Participant responses will be anonymous.

- Data will be stored on a password-locked computer, and on a flash drive which will be stored in a locked file cabinet. After five years, all electronic records will be deleted.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Kimberly Matthews. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted] or [redacted] You may also contact the researcher's faculty sponsor, Dr. Janice Kooken, at [redacted]

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.