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Burnout in rural special education teachers of students with low incidence disabilities: A mixed methods study on the fall of the dedicated and committed.

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BURNOUT IN RURAL SPECIAL EDUCATION TEACHERS OF STUDENTS WITH

LOW INCIDENCE DISABILITIES: A MIXED METHODS STUDY ON

THE FALL OF THE DEDIDCATED AND COMMITTED

By

Kristie N. Jones
B.S., Eastern Kentucky University, 2006
M.A. Georgetown College, 2012

A Dissertation
Submitted to the Faculty of the
College of Education and Human Development of the University of Louisville
In Partial Fulfillment of the Requirements
For the Degree of

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University of Louisville
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A Dissertation Approved on

March 29, 2024

by the following Dissertation Committee:

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Dr. Ginevra Courtade

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Dr. Jeff Valentine

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Dr. Terry Scott

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Dr. Melina Ault

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Dr. Jenny Root

DEDICATION

To my husband, Danny, thank you for your unwavering support and faith in me during this crazy time. Your steadfast belief and confidence in me pushed me when I needed it most. Your love, patience, and ability to make me take a step back and breathe when I most desperately needed it gave me the motivation and drive needed to succeed.

To my parents, Michael and Patrica, thank you for always believing in me. Your support and guidance throughout my entire life has given me the courage and dedication to pursue my dreams and passions. I will never be able to express how much you mean to me and how thankful I am for you. Thank you for giving me my roots and wings.

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ABSTRACT

BURNOUT IN RURAL SPECIAL EDUCATION TEACHERS OF STUDENTS WITH

LOW INCIDENCE DISABILITIES: A MIXED METHODS STUDY ON THE

FALL OF THE DEDICATED AND COMMITTED

Kristie Jones

March 29, 2024

The purpose of this explanatory sequential mixed methods study was to examine the phenomenon of burnout in rural special education teachers of students with low incidence disabilities. For the quantitative phase, the *Maslach Burnout Inventory-Educator Survey* (MBI-ES, Maslach et al., 1986) was administered to 23 participants from geographically rural areas of one southern state in the United States. Descriptive analysis found that 92% of participants were experiencing high or moderate levels of burnout. Pearson correlation coefficient determined a statistically significant positive correlation between emotional exhaustion and depersonalization. A negative correlation was found between teachers' age and depersonalization. Six participants were selected based on the results of their MBI-ES scores to participate in follow-up interviews. Interviews added in-depth insight into how and why burnout in impacting this population of teachers. Participants expressed job demands, unrealistic expectations, lack of professional recognition, consistent high needs of students, lack of professional support, and isolation as contributing factors. Additional findings were discovered during data integration. Clear

distinctions were determined between participants scoring in different levels (i.e., high, moderate, low). Professional recognition, coping skills, lack of professional support, and experiences with burnout previously contributed to distinctions among levels. Study limitations and theoretical, practice, and future implications are discussed. In conclusion, this research enhances the understanding of burnout in rural special education teachers and contributes to current literature.

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CHAPTER ONE

INTRODUCTION

Defining Burnout

In 2019, the World Health Organization (WHO) declared burnout an occupational

phenomenon and included it in the International Classification of Diseases (ICD);

defining burnout as persistent stress caused by workplace factors that have not been

managed effectively. While this new recognition did not qualify burnout as a medical

diagnosis, it does acknowledge burnout as a factor that can contribute to overall health

issues and can be listed as a reason someone is seeking care. Moreover, the ICD

acknowledgment allows healthcare providers and insurance companies a billing code that

is to be used for burnout (WHO, 2019). Burnout is characterized by three symptoms: (a)

feelings of energy depletion or exhaustion, (b) increased mental distance from one's job,

and (c) and reduced professional efficacy (WHO, 2019). Burnout can be a result of an

individual's response to persistent stress in the workplace (Maslach & Jackson, 1981),

and can affect and cause damage in cognitive, emotional, physical, and attitudinal ways

(Maslach, 2006). Burnout is a serious syndrome and can have detrimental effects for the

individual, the clients, and their organizations when not treated or effectively managed

(Freudenberger, 1974; Maslach et al., 2018).

While the word burnout has been used for decades, Freudenberger (1974) first

introduced the term in a psychological context to refer to individuals that worked or

volunteered with individuals with mental disorders or social issues, specifically therapy

providers, clinics, intervention centers, and runway houses. Freudenberger described burnout as an individual's experience with emotional depletion, cynicism, loss of motivation, and frustration due to failed expectations in a professional capacity. Freudenberger first observed that he and his colleagues, who worked at a free clinic were experiencing these symptoms and feelings and would refer to this as "burn-out" (p. 159). Observing and analyzing his own symptoms and those of fellow colleagues, Freudenberger documented their experiences and he and his colleagues began referring to their experiences as "burnout." In fact, in Freudenberger's initial study on burnout (1974), he defined burnout in a clinical manner as a verb meaning– "to fail, wear out, or become exhausted by making excessive demands on energy, strength, or resources (p. 159)." This definition has shaped all future definitions of burnout. The most recent definition of burnout in the Merriam-Webster's Dictionary is to "cause to fail, wear out, or become exhausted especially from overwork or overuse (Merriam-Webster, 2023).

Two years after Freudenberger (1974) identified the phenomenon of burnout, burnout became more formally recognized with an updated definition to include a sense of fatigue, cynicism, and decreased commitment to the occupation (Maslach, 1976). This significant revamp of the definition prompted burnout to become recognized as a syndrome, meaning it is a clinical definition of a mental state that has signs and symptoms that present themselves at the same time and a distinct state from others (Edú-Valsania et al., 2022; Maslach 1976). While there have been various definitions of burnout, Maslach and Jackson's (1981) is the most recognized and used. For this study, burnout is defined according to Maslach and Jackson's (1981) definition:

Burnout: psychological syndrome of emotional exhaustion, depersonalization, and

reduced personal accomplishment, which can occur among individuals who work

with other people in some capacity;

Emotional Exhaustion: feelings of being emotionally overextended and depleted

of one's emotional resources;

Depersonalization: a negative, callous, or excessively detached response to other

people, who are usually the recipients of one's service or care;

Reduced Personal Achievement: a decline in one's feelings of competence and

successful achievement in one's work.

Background of the Problem

Special education teacher (SET) shortages and attrition are a significant issue that

affects school districts across the nation. In the United States, 65% of schools report a

shortage of SETs (Institute of Education Sciences [IES], 2022), with districts expressing

difficulty in hiring and retaining SETs (Goldring et al. 2014; McLeskey et al., 2004).

Furthermore, SET vacancies are almost double that of other certification areas (IES,

2023). Several literature reviews have been conducted on SET attrition and retention over

the past three decades (Billingsley, 1993, 2004; Billingsley & Bettini, 2019), and report

burnout as a reason for SETs to either leave the field or move to general education (Berry

et al., 2011; Billingsley, 2007; Garwood et al., 2018; Hagaman & Casey, 2018,).

Hagaman and Casey (2018) describe SET attrition as a "revolving door," in which

experienced SETs are exiting, and novice SETs are entering. In turn, this can have a

detrimental impact on students with disabilities, who are affected simply because they

receive services from different, often novice teachers, meaning students with disabilities may not often be educated by experienced veteran teachers.

Burnout among SETs is a devasting problem affecting teachers nationwide. The U.S. Department of Education (2020) reported there is a substantial shortage of SETs in 48 states and the District of Columbia, with an annual attrition rate of 33%. Brownell and colleagues (2018) found that approximately 13% of the attrition rate was due to SETs leaving the field, and 20% moving to general education. Burnout is not a new phenomenon in education. Several studies and subsequent reviews of SET burnout have been conducted since burnout was formally defined by Maslach in 1976. A synthesis of research (Brunsting et al., 2014), and a meta-analysis (Park & Shin 2020), have specifically evaluated burnout in SETs and provided valuable information for stakeholders (e.g., administrators, support specialist, district officials, teachers). Researchers have found that burnout can be a result of work related stress, job responsibilities and demands, inadequate support, role conflict, paperwork, role confusion (Billingsley, 2004; Garwood et al., 2018), challenging student behaviors (Grayson & Alvarez, 2007; Hastings & Brown, 2002; Zabel & Zabel, 2001), efficacy in managing challenging student behavior (Garwood et al., 2018; Park and Shin, 2020), role overload as a result of too many unique demands (Brunsting et al., 2014) and expectation/reality mismatch occurring when expectations of preservice do not align with reality of in-service teaching (Brunsting et al., 2014). Several studies have documented burnout or job-related stress as a reason for leaving, thus contributing to the nationwide SET attrition and shortage issue. Billingsley (2019), who surveyed SETs, reported up to 27% of SETs claim burnout or stress, as a reason for leaving the field.

Burnout in a Post-COVID World

Mental health issues and burnout in teachers have had a detrimental effect on teacher well-being and attrition for decades; however, COVID-19 and the ensuing pandemic exacerbated the issues of mental health of education professionals, including burnout (Cormier et al., 2021; Marshall et al., 2022). SETs reported high levels of burnout and stress, and low levels of satisfaction while teaching during and post-COVID. In the 2021-2022 school year, a staggering 76.4% of teachers reported they were considering leaving their positions (Marshall et al., 2022). Furthermore, SETs represent the highest vacancies in the teaching profession since COVID (IES, 2023).

While burnout data related to SETs post COVID are not abundantly available yet, one study has examined burnout in SETs post-COVID. Cormier and colleagues (2021) conducted a survey on overall mental health in SETs during the first year of the COVID pandemic (Fall 2020). While this was early in the experience of COVID, results show that SETs reported emotional exhaustion, a dimension on the Maslach Burnout Inventory-Educator Survey (MBI-ES; Maslach et al., 1986), with a sample score of $M = 32.0$, which indicates a high level of emotional exhaustion (Cormier et al., 2021; Maslach et al., 1986). In comparison, a study conducted on SET burnout pre-COVID revealed emotional exhaustion scores to be $M = 25.63$ (Garwood et al., 2018); indicating a moderate level of emotional exhaustion. While the study participants are different, these two scores could indicate an increase in SET burnout from moderate to high levels.

Ruble and colleagues (2023a) conducted a longitudinal study on burnout in SETs with data collection occurring pre-COVID. The MBI-ES (Maslach et al., 1986) was used, however, the scoring scale used to measure the three dimensions of burnout was used

differently than in previous studies. In this study, the scores were reported as the average number of times per month the participants experienced emotional exhaustion, depersonalization, and personal accomplishment. Ruble and colleagues (2023a) reported participants experienced symptoms of emotional exhaustion on average a few times a month ($M = 3.23$, $SD = 1.04$). Similarly, Cormier and colleagues (2021) also reported the average scores of men ($M = 3.3$, $SD = 1.2$), and women ($M = 3.6$, $SD = 1.2$). Naturally, due to an already demanding occupation and the increased demands of teaching during COVID, burnout, as measured by the emotional exhaustion dimension, as well as mental health issues have increased. Furthermore, a recent national study of SETs post-COVID found that SETs are reporting high levels of stress (91%), depression (58%), and anxiety (76%) due to COVID (Cormier et al., 2021). Marshall and colleagues reported that teachers post-COVID are exhibiting lower levels of morale, with 29.5% of reporting low morale in May 2021 and increasing to 53.6% when surveyed the following year (May 2022). SETs are exhausted, overworked, and deal with mental health issues such as burnout, anxiety, and depression (Cormier et al., 2021; Marshall et al., 2022). Burnout in SETs pre-COVID was a detrimental issue facing schools across the nation, resulting in high SET vacancies. Undeniably, COVID has only exacerbated this problem.

Burnout in Helping Professions

Originally, burnout was applied to individuals who worked or volunteered in helping professions, such as clinics, intervention centers, therapy providers, or runaway houses (Freudenberger, 1974). Several years after the term burnout was first used in psychological manner, Maslach and Jackson (1981) developed the Maslach Burnout Inventory (MBI), which focused on burnout in human service occupations such as nurses,

police officers, doctors, and teachers (Maslach et al., 2018). In Freudenberger's (1974) seminal paper detailing burnout, he said it was the "dedicated and committed" that are prone to burnout. These people who continuously give and give that walk into a "burn-out trap" (p. 161). People in the helping professions spend a lot of time with clients that are often experiencing physical, social, or psychological problems (Maslach et al., 2018), and the continuous stress experienced working in these settings can lead to burnout. Today, burnout can be experienced in all types of settings and occupations, including unpaid work and students (Maslach et al., 2018). Still, burnout can be experienced by various occupations by showing signs and risk factors of emotional exhaustion or depletion, depersonalization, and reduced personal accomplishment (Maslach et al., 2018).

Burnout in Educators

While burnout and subsequently attrition is found in a variety of work settings and populations (Maslach et al., 2018) educators appear to have higher rates of attrition than other professions (Borman & Dowling, 2008). Several factors have been found to contribute to burnout in educators, including job stress, unsafe schools, role conflict, role ambiguity, support from administration and colleagues, and teaching experience (Dworkin & Tobe, 2014; Maslach et al. 1986). Moreover, teachers experience pressure from administrators, parents, politicians, and society (Maslach et al., 2018). As in other professions, burnout can lead to other mental health issues, such as anxiety and depression, and has been found to contribute to overall health and well-being (Madigan & Kim, 2021; Maslach et al., 2018). Furthermore, educators experiencing burnout are more susceptible to demonstrating diminished quality of teaching and often report higher levels

of absenteeism (Wolf et al., 2015). Teacher burnout may be on the rise, due not only to typical contributing factors, but also to accountability standards and lack of trust in professional relationships (Dworkin & Tobe, 2014).

As previously stated, the MBI was originally developed to be used for individuals in human services occupations (Maslach et al., 1981; Maslach et al., 2018). Educational researchers became interested in the measurement tool to obtain an evaluative measure of burnout, leading to the development of a modified version of the original MBI—the Maslach Burnout Inventory-Educator Survey (MBI-ES; Maslach et al., 1986). The three original dimensions—emotional exhaustion, depersonalization, and personal accomplishment—are still used in the modified version. However, the wording of scale items was changed from "recipient" to "student" to clarify and provide concise language regarding the teaching profession (Maslach et al., 1986; Maslach et al., 2018).

Burnout in Special Education Teachers

Burnout is likely to be seen in SETs at higher rates than general education teachers, as the unique job demands of special education make them more susceptible to risk factors (Aloe et al., 2014; Brunsting et al., 2014; Garwood et al., 2018). Reasons for high burnout rates include special education job-specific circumstances, such as special licensing requirements, work overload, challenging behaviors, job-role stressors, efficacy in behavior management, relationships with other professionals, limited and/or absent administrative support (Brunsting et al., 2014; Garwood et al., 2018), and intrapersonal teacher factors, such as social support, coping strategies, and mindfulness skills (Ruble et al., 2023a). SETs experiencing burnout, or those who are at-risk for burnout can experience not only emotional exhaustion, depersonalization, and reduced personal

accomplishment (Maslach & Jackson, 1981), but can also exhibit negative emotions towards their work and others, such as frustration, cynicism, emotional depletion, and physical ailments and illness (Maslach et al., 2018). More than 20 years ago, burnout in SETs was deemed a "crisis" (Wisniewski & Gargiulo, 1997); unfortunately, the crisis of burnout is still ever present in SETs, with little being done since to lessen the effects of burnout (Garwood et al., 2018).

Burnout in SETs has a direct impact on the students with disabilities they are responsible for teaching. SETs experiencing burnout are more susceptible to negative personal effects, such as anxiety, stress, emotional and physical strain, and depression, which can hinder students' academic and behavioral outcomes (Williams & Dikes, 2015) and IEP goal attainment (Ruble & McGrew, 2013). Additionally, when negative feelings, cynicism, and exhaustion are not dealt with, SETs become less efficacious, which can lead to less effective teaching (Brunsting et al., 2014). SETs that are experiencing burnout may also have more absences and long-term absences (Leiter & Maslach, 2005; Suter et al., 2020) attributed to stress or similar issues. For students with disabilities to receive high quality instruction, SETs need to be well and present in the classroom. Furthermore, with 65% of schools reporting SET teacher vacancies (IES, 2022), the 7.3 million students with disabilities in the United States will experience a more difficult time receiving a free appropriate public education (FAPE; National Center for Education Statistics, 2021). Researchers have studied the phenomenon of burnout for decades; however, it is still an evident problem that trickles down to not only teacher retention, but also the health and well-being of teachers and the quality of education students with disabilities need and deserve.

Special Circumstances in Rural Special Education

While attrition and burnout in SETs are problematic across the nation, geographically rural areas carry unique challenges in retaining teachers due to burnout and related factors. Researchers have reported that administrators express a difficult time recruiting and retaining special educators in rural areas, often because of geographic location, diverse caseloads, lower pay, and lack of relevant professional development opportunities (Berry, 2012; Garwood et al., 2018; Nguyen 2020; Ruble et al., 2023a). Studies conducted specifically on rural populations are scarce (Nguyen, 2020). In addition to the general stressors and risk factors associated with SET burnout (previously mentioned), rural SETs unique challenges can include isolation in both a professional and geographical sense, as well as caseloads that can be diverse (e.g., multiple ages, grades, disabilities). Moreover, isolation and lack of social support are often areas special education teachers acknowledge as an area of stress (Berry, 2012; Garwood et al., 2018; Kaff, 2004; Ruble et al., 2023a), especially in rural areas where the number of SETs can be small. SETs in rural areas may be the only one in the school or sometimes the entire district (Menlove, 2004), meaning that just the loss of one special educator could mean the loss of an entire special education program and services in rural areas. Additionally, special education support services (e.g., board-certified behavior analyst or school psychologist) may be harder to obtain in rural areas, which can contribute even more to SETs feeling the pressure and stress of multiple job roles (Garwood et al., 2018; Oram et al., 2016; Ruble et al., 2023a). These additional challenges that rural SETs experience can contribute to higher levels and risk factors of burnout, as well as issues with attrition and retention in already hard to fill rural areas.

Burnout in Rural Special Education Teachers

Undoubtably, burnout can be identified and experienced by a vast number of occupations and experiences (Maslach et al., 2018); however, SETs are highly susceptible to burnout, and often identify burnout factors as a reason for leaving the profession (Berry et al., 2011; Bettini et al., 2017; Billingsley & Bettini, 2019; Brunsting et al., 2014; Garwood et al., 2018; Ruble et al., 2023a). Moreover, with the chronic shortage of SETs in rural areas and the unique job demands associated with rural teaching, there is a critical need for research in this area. After an extensive review of literature spanning the past two decades, I was only able to locate two studies that focused on examining burnout in rural SETs that obtained a quantitative measure of burnout studies (Garwood et al., 2018; Ruble et al., 2023a). It is important to note that the term burnout is used in research and findings of teacher stress factors, and reasons for job attrition (leaving or switching to general education); however, many studies report it without an actual measure or explore the dimensions of burnout in an in-depth way. A short summary of each study will provide relevant information and details, followed by a synthesis of results and findings, and concluding with identifying gaps in research.

Both studies used the Maslach Burnout Inventory-Educator Survey (MBI-ES; Maslach et al., 1986) to evaluate burnout in rural SETs. The MBI-ES is a 22-item survey evaluating each dimension of burnout: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) using a 6-point Likert scale, rated from 0 (never) to 6 (every day). Each dimension receives a score independently of the other dimensions, and there is not an overall burnout score. There is also not a definitive score that substantiates proof of burnout (Maslach et al., 2018). The MBI-ES shows consistent

measures of reliability with .90 for emotional exhaustion, .76 for depersonalization, and .76 for personal accomplishment (Iwanicki & Schwab, 1981; Maslach et al., 2018). There are two methods to scoring the MBI-ES: the summation (SUM) method, and the average (AVE) method. The former is how most research on burnout in the last 30 years has been evaluated (Maslach et al., 2018), and how Garwood and colleagues (2018) scored MBI-ES results. The SUM method involves totaling Likert-scale responses for each dimension to obtain a score, which can then be used to provide information regarding low, moderate, and high levels of burnout (Maslach et al., 2018). The second method, the AVE method, is to calculate the average score of each dimension, using the same Likert rating scale. Ruble and colleagues (2023a) used this method to obtain scores. This method does not provide an overall score for each dimension, instead, the average would be represented the same as the Likert response. For example, a mean score of 3.5 would indicate that the respondent felt the dimension several times a month, but not every week (Maslach et al., 2018; Ruble et al., 2023a).

Garwood et al. (2018) conducted the first and only mixed-methods study focused on burnout in 64 rural SETs. Participants included a variety of teaching experiences ($M =$ 14.94 years, $SD = 9.12$), special education teaching experience ($M = 13.04$ years, $SD = 9.20$), and classroom management professional development hours ($M = 13.92$ hours, $SD = 22.13$). The MBI-ES (Maslach et al., 1986) was used to determine levels of burnout and how several different variables affected burnout that rural SETs are experiencing. Variables assessed were classroom management efficacy, role conflict, and role ambiguity. Results from the quantitative phase were then used to develop qualitative inquiry. Focus groups were conducted to reveal rich insight and meaning to enhance and

explain the quantitative data obtained. Overall, results revealed that rural SETs were experiencing burnout in emotional exhaustion. Efficacy in managing challenging behaviors, job stressors, and collegial relationships had the largest effect on SET burnout.

Ruble and colleagues (2023a) conducted a longitudinal study of burnout in 48 rural SETs over four time points in one school year. The aim of their study was to explore the stability of burnout measures over the course of a school year and determine the predictive nature of several teacher intrapersonal variables and school factors. Participants included a variety of special education teaching experience *(M* = 13.1 years, *SD* = 7.8), and classroom settings: resource/inclusion (*n* = 25; 53.2%); inclusion only (*n* = 18, 17%); resource room (*n* = 7; 14.9%); self-contained (*n* = 4; 8.5%); and a combination of self-contained, resource, and inclusion (*n* = 3, 6.4%). The MBI-ES (Maslach et al., 1986) was used to determine levels of burnout. Ruble and colleagues (2023a) were interested in exploring how school climate and teacher intrapersonal variables (mindfulness, coping, social support, and problem-solving skills) affected burnout levels in SETs. Overall, results reveal that SETs burnout levels remain stable throughout the school year. Burnout factors were present at the beginning of the school year, *M* = 3.2, *SD* = .98, and similarly at the end of the year *M* = 3.4, *SD* = 1.5; indicating that SETs were consistently experiencing emotional exhaustion several times a month. Moreover, the researchers found that the biggest predictor of burnout at the end of the school year was burnout scores at the beginning of the year. Interestingly, only one school related factor, excessive work demands, demonstrated a predictive factor of burnout. In contrast, teacher interpersonal variables (coping, social skills, and mindfulness) did have a predictive relationship with burnout. Although both studies scored and reported results

differently, making comparison of quantitative data not definitive, results can still be synthesized and inferred on available information. The results of the MBI-ES for each study will be discussed below according to burnout dimension.

Emotional Exhaustion

Emotional Exhaustion (EE) is the first measure on the MBI-ES (example survey item: "I feel emotionally drained from my work."). There are nine survey items for EE, with a possible range of scores from 0-63: low (0-16), moderate (17-26), and high (>27). Garwood et al. (2018) reported moderate to high levels of burnout in the EE scores ($M =$ 25.63, $SD = 12.70$). Factors associated with EE scores varied in the studies, Garwood et al. found role conflict ($r = .56$, $p < .001$) and role ambiguity ($r = .46$, $p < .001$) were positively associated, and classroom management efficacy ($r = -.26$, $p = .036$) was negatively correlated with EE. Similarly, Ruble et al. (2023a) reported levels over four time points ($M = 3.2$, $SD = 3.2$; $M = 3.2$, $SD = 3.2$; $M = 3.3$, $SD = 3.3$; and $M = 3.4$, SD 1.5), indicating SETs were consistently reporting levels of EE several times a month throughout the school year. Furthermore, Ruble and colleagues (2023a) were interested in examining school climate and intrapersonal teacher factors. Only one school climate variable, excessive work demands ($r = .42$, $p < .01$), predicted burnout in terms of EE. The researchers reported that four intrapersonal variables correlated with EE: non-judging mindfulness ($r = -.53$, $p < .01$); nonreactivity mindfulness ($r = -.33.$, $p < .05$), coping self-efficacy ($r = -.33$, $p < .05$); and coping-passive avoidance ($r = .60$, $p < .01$).

Depersonalization

Depersonalization (DP) is the second measure on the MBI-ES (example survey item: "I don't really care what happens to some students."). There are five survey items

for DP, with a possible range of scores from 0-25: low (0-8), moderate (9-13), and high (>14). In both studies, low levels of depersonalization were present. Garwood et al. reported a mean of 5.89 (SD = 5.89) for depersonalization, indicating low levels of burnout in the dimension of depersonalization. Ruble et al. (2023a) reported a mean of 1.5 (SD = 1.5), indicating that study participants exhibited signs of depersonalization between one time a month and a couple times a year. Garwood et al. (2018) reported a positive correlation between DP and role conflict (r = .38, p = .002) and DP and role ambiguity (r = .46, p < .001) and a negative correlation between DP and classroom management efficacy (r = -.47, p < .001). Ruble et al. (2023a) reported a positive correlation between DP and passive avoidance (r = .53, p < .01), and negative correlations between DP and social support (r = - 45, p < .01); DP and nonjudging mindfulness (r = -.61, p < .01); DP and nonreactivity mindfulness (r = -.33, p < .05); and DP and coping self-efficacy (r = -.49, p < .01).

Personal Accomplishment

Personal accomplishment (PA) is the third measure on the MBI-ES, (example: survey item: "I have accomplished many worthwhile things in this job."). There are eight survey items for PA, with a possible range of scores from 0-48: low (0-30), moderate (31-36), and high (>37). Both studies reported high levels of personal accomplishment, which is scored opposite for this dimension; higher scores represent lower levels of burnout. Garwood et al. (2018) reported high levels of PA (M = 37.20; SD = 7.87). Ruble et al. (2023a) reported high levels of PA (M = 4.9, SD = .73), which indicates that study respondents experienced personal accomplishment attributes between once a week to a few times a week. Garwood et al. (2018) reported a negative correlation between PA and

role conflict ($r = -34$, $p = .006$), and PA and role ambiguity ($r = -.55$, $p < .001$), and a positive correlation between PA and classroom management efficacy (CME; $r = .62$, $p < .001$). Ruble et al. (2023a) reported a positive correlation between PA and school morale ($r = .30$, $p < .05$); PA and professional interactions ($r = .31$, $p < .05$); PA and social support ($r = .42$, $p < .01$); PA and nonjudging mindfulness ($r = .41$, $p < .01$); PA and nonreactivity mindfulness ($r = .35$, $p < .05$); PA and coping self-efficacy ($r = .52$, $p < .01$); PA and problem focused coping; ($r = .39$, $p < .05$) and PA and emotion focused coping($r = .43$, $p < .01$). A negative correlation was reported between PA and caseload size ($r = -35$, $p < .05$).

Results of both studies did appear consistent with each other regarding higher levels of emotional exhaustion and personal accomplishment, and lower levels of depersonalization. Results of emotional exhaustion are a consistent theme reported in studies on burnout and teacher attrition (Billingsley & Bettini, 2019; Brunsting et al., 2014; Cormier et al., 2021; Garwood et al., 2018; Park & Shin, 2020; Ruble et al., 2023a). Low levels of depersonalization were noted in each study. Evaluating contributing factors of depersonalization in rural SETs could provide more information, however, it would be necessary to evaluate similar variables of interest to make larger scale generalizations about rural populations.

Rural Special Education Teacher Burnout: Qualitative Results

In addition to the MBI-ES (Maslach et al., 1986), Garwood and colleagues (2018) conducted focus groups based on the survey results. The analysis and results of the focus groups revealed the following themes associated with burnout in rural SETs (a) role conflict, (b) role ambiguity, (c) exhaustion, (d) personalization and accomplishment, (e)

behavior management, (f) relationships with students, and (g) relationships with colleagues. Focus groups provided in-depth explanations and experiences of how the SETs were experiencing burnout. Following is a summary of factors and themes contributing to burnout found in current literature.

Factors Contributing to Burnout in Special Education Teachers

Role Conflict

Role conflict occurs when responsibilities and demands of SETs compete, resulting in duties not being filled (Garwood et al., 2018). Role conflict is often a struggle many SETs face and contribute to burnout (Billingsley & Bettini, 2019; Fimian & Blanton, 1986; Garwood et al., 2018; Ortogero et al., 2022), especially in rural education where resources and support services are limited. Role conflict was associated with all the three dimensions of burnout as reported by Garwood et al. (2018). Clearly defining SETs roles, expectations, and job responsibilities, as well as designing a contingency plan for when the roles compete with each could provide some relief for rural SETs.

Role Ambiguity

Role ambiguity happens when the job roles are unclear, and in special education this is often tied into the multiple job roles SETs are expected to perform. Garwood and colleagues (2018) found that role ambiguity for rural SETs happened when teachers were working tirelessly towards an uncertain goal or ending. Role ambiguity has shown to be a contributing factor of EE and PA (Brunsting et al., 2014; Garwood et al., 2018). Role ambiguity and role conflict are not new to educational research; however, additional research is needed that examines organizational issues, job design, and interventions that

provide clarity and support in role conflict and role ambiguity as found in prior studies (Billingsley & Bettini, 2019; Brunsting et al. 2014).

Professional Development

Burnout in rural SETs can be a result of teachers not feeling qualified or prepared to teach across several disability categories (Berry et al., 2011; Garwood et al., 2018). The increasing diversity in classrooms, especially in rural areas, means that today's teachers are experiencing more job-related stressors than previous generations (Aloe et al., 2014; Garwood et al., 2018) carrying the potential of burnout with it. Berry and colleagues (2011) reported that almost a third of SETs interviewed did not feel prepared to teach the range of diversity in students they teach. Rural SETs are often responsible for diverse caseloads, including disability categories they may not feel qualified to teach. This factor has contributed to high levels of EE and low levels of PA, demonstrating the need for relevant professional development (PD) in rural settings to support SETs retention (Benjamin & Black, 2012; Berry et al., 2011; Garwood et al., 2018; Helge & Marrs, 1981; Nyguyen 2020).

Rural SETs often have limited access to PD, especially PD specific to teachers' perceived needs. Researchers indicate that it is imperative for teachers to have input into the PD they receive (Bettini et al., 2020; Garwood et al., 2018; Ruble et al., 2023b). Otherwise, SETS may feel like professional development is a punishment for inadequately handling job roles, specifically challenging PD to be delivered by people who have "street cred." In other words, people who know what it is like and means to be a rural SET in their community (Garwood et al., 2018).

Self-efficacy and job-related stressors have been reported to have a high correlation to burnout in both general education teachers and SETs (Aloe et al., 2014; Dicke et al., 2014; Garwood et al., 2018). Based on these findings the following are topics of interest for PD rural SETs could benefit from (a) self-efficacy (especially in classroom management; challenging behaviors), (b) collaboration/co-teaching, and (c) handling multiple job demands (paperwork, schedules). Again, PDs and training will be more relevant and impactful for both teacher and student when the SET can have input on the additional training needed.

Social and Collegial Resources/Supports

Interestingly, while several studies have determined the importance of administrative support (Benjamini & Black, 2012; Bettini et al., 2020; Nguyen, 2020) for SETs, Garwood et al. (2018) reported that collegial support had a bigger impact on teacher job satisfaction than administrative support. Rural SETs that report having a positive social network and relationship with colleagues reported lower levels of burnout than those who did not, and a higher intent to stay in their positions when there is a sense of shared responsibility for students with disabilities (Berry et al., 2012). Similarly, Ruble et al. (2023a) reported a negative correlation between social support and depersonalization and a positive correlation between social support and personal accomplishment. Rural SETs that report more social support are less likely to experience emotional exhaustion and depersonalization and are more likely to have report higher levels of feelings of personal accomplishments (Garwood et al., 2018; Ruble et al., 2023a). Isolation is not a new feeling in special education; however, the importance of how social and collegial supports are impacting rural teacher burnout needs more

research. As noted, due to geographic locations some rural SETs may be the only SET in the school (Garwood et al., 2018), meaning that rural SETs have fewer opportunities to collaborate with other special education teachers. Social and collegial support is important for rural SETs to collaborate, support each other, vent, and just help with not feeling alone. Social support and interventions for rural SETs to prevent stress/burnout would be beneficial to the field (Ruble et al., 2023b). When SET's have someone in the same field they can share and discuss their feelings and experiences, the risk of burnout is reduced (Maslach & Leiter, 2016).

Self-Advocacy, Self-Care, and Intrapersonal Skills

As burnout is a personal response to stress, it is important to determine the causes of burnout and how to better help SETs manage their overwhelming feelings of stress before they reach burnout levels. SETs must be able to practice self-advocacy and self-care and be aware of their cognitive processes that affect their emotions and feelings of stress. SETs that can advocate for themselves and learn to put their emotional health first by setting limits, may be able to stay ahead of burnout (Brunsting et al., 2014; Garwood et al., 2018; Ruble et al., 2023b). There is a gap in research regarding the mental processes associated with burnout. Most burnout research conducted has been focused on causes and factors (Heinemann & Heinemann, 2017; Ruble 2023b), which is of grave importance. However, researchers also need to study SETs experiencing the burnout phenomenon to determine the mental processes and intrapersonal skills they exhibit. (Ruble et al., 2023a; 2023b).

Rural vs. Urban Special Education Teacher Burnout

Just as there is a lack of research examining burnout in rural settings, there is a lack of research to determine differences in burnout due to geographical setting. Shortages of SETs are increasing, especially in high-poverty urban and rural areas (Levin et al., 2015); however, it is important to note these geographic areas have different circumstances and risk factors that may contribute to burnout in SETs. Two studies have reported lower turnover of SETs in rural areas than urban areas (Menlove et al., 2004; Prater et al., 2007). Rural SETs often have personal connections to the communities they teach in that may be a factor in lower attrition rates in rural areas. The most recent study conducted on contributing factors of SET attrition between geographical areas was in 2007 (Prater et al.) Rural districts reported a higher number of SETs citing retirement (20%) and transfer to general education (17.1%) as their reason for leaving, when compared to SETs in urban districts (retirement = 12.2%; transfer = 10.1%); whereas urban districts reported SETs moving (25.7%) and changing district (14.3%) as their reason for leaving, as compared to SETs in rural districts (moving = 17.1%; changing district = 5.7%). Exploring the differences in attrition levels as it relates to burnout levels according to geographic location could provide relevant information regarding burnout and attrition similarities and differences in the special education.

Work Demands vs. Resources

Working conditions have been studied regarding SET attrition, intent to return, and burnout (Bettini et al. 2020; Stark 2022). However, in a recent systematic review of working conditions of SETs, only two studies were conducted with rural populations (Berry, 2012; Westing & Whitten, 1996) and neither of these studies gained a quantitative measure of burnout. Researchers have concluded that satisfactory working

conditions enable SETs to engage in effective learning and teaching practices and decrease their burnout levels (Brunsting et al., 2014; Stark et al., 2022). Furthermore, research shows that SETs are more likely to experience burnout when their working conditions are not ideal, and their demands overpower their resources, leading to a greater possibility of SET intent to leave (Bettini et al., 2020; Stark et al., 2022). A study of working conditions and the effect on burnout in rural SETs of low incidence disabilities remain nonexistent.

Interventions

Only one known study examined the effects of an intervention to decrease burnout in SETs (Cooley & Yovanoff, 1996) and while it did not focus on rural populations, promising results were reported. The study evaluated two interventions (a stress-management workshop and a peer-collaboration workshop) on burnout in 92 SETs and related service providers. The intervention resulted in positive changes in SETs levels of EE and PA. Replicating this study in rural populations could prove beneficial to decreasing rural SET burnout and increasing retention.

Ruble and colleagues (2023b) recently modified a burnout intervention developed for community health workers titled BREATHE (Burnout Reduction: Enhanced Awareness, Tools, Handouts, and Education; Salyers et al. 2011). Ruble and colleagues (2023b) modified the original version, to meet the needs of SET teachers−BREATH-EASE (Burnout Reduction: Enhanced Awareness, Tools, Handouts, and Education: Evidence-based Activities for Stress for Educators (Ruble et al., 2023b). This intervention provides three modules: (1) Reminding ourselves to BREATHE in work; (2) Managing our workloads; and (3) Connecting with others. To date, this modified

intervention has not been implemented, nor have results been published. However, this work holds promise for supporting SETs and filling a gap in literature. New and updated research needs to be conducted to ensure we are designing interventions that meet the unique needs of the population of current teachers and students. Terminology and culturally relevant issues change frequently, requiring the need for current research to guide practice and interventions (Landers et al., 2011). By effectively studying burnout and associated variables and risk factors in rural areas, interventions can be designed and implemented for specific application to rural SETs.

Purpose of the Study

Projections from the U.S. Bureau of Labor Statistics (2017) reveal that by the year 2026, there will be a need for more than 33,000 additional SETs, with the greatest need in teaching students with low incidence disabilities (for definition) in rural and remote areas (Jameson et al., 2019). This is highly problematic as it is consistently difficult to fill positions for both SETs in rural areas and SETs of students with low incidence disabilities (Berry et al., 2011; Nguyen, 2020), but SETs in these positions are also highly susceptible to burnout (Garwood et al., 2018). In the most recent study conducted on burnout in rural SETs, Ruble and colleagues (2023a) found that rural SETs are experiencing symptoms and levels of burnout consistently throughout the year, even beginning the school year already exhibiting symptoms of burnout. Research is needed to explore how this highly susceptible population of teachers are experiencing burnout and why, so that meaningful interventions and plans can be designed and implemented that help to support rural SETs, decrease the all-encompassing symptoms of burnout, and facilitate retention of our most needed group of educators.

The need for rural specific research is critical to understanding how burnout is affecting SETs in rural populations. Rural specific research is often an "after-thought" or covariate in research (Nguyen, 2020) and not fully examined as a construct in its own. Rural focused studies examining burnout in SETs, the factors, causes and how teachers are experiencing burnout are imperative areas that need research. Furthermore, it is important to note that geographically rural areas are not all similar, and findings may not generalize across different rural contexts.

A meta-analysis conducted by Park and Shin (2020) identified different variables and their relation to burnout in SETs. Variables examined were student-related (e.g., age, behavior problem, disability, grade, and number of students); teacher-related variables (e.g., age, teaching experience, self-efficacy, coping and education level); and school-based variables (e.g., number of support personnel, resources, support from school personnel). Student disability had a significant effect on depersonalization; however, it is unclear which disability categories determined this result, only that SETs who teach students with high frequency of behaviors may be more prone to feelings of burnout. While there was no disaggregation of rural information or data, this analysis provides further evidence of the need for future research in rural areas to evaluate levels of burnout according to these levels of variables. By thoroughly evaluating the effects of different variables on burnout, interventions targeting specific issues in rural populations can be designed and implemented.

Unfortunately, most SETs will exhibit multiple forms of frustrations and stress in their careers. Some may experience these frustrations and stress more frequently and intensely, it is when these feelings are not appropriately handled and in turn lead to

experiencing the different dimensions and symptoms of burnout (Brunsting et al., 2014; Maslach et al., 2001). Researchers need to not only identify the difference in stress and burnout in research, but also conduct research that effectively measures burnout, not just stress or self-identified burnout (Brunsting et al., 2014) and the variables that contribute to burnout so that appropriate strategies can be developed to minimize those variables. Chirico and Leiter (2022) recently cautioned people against using burnout as an umbrella term to portray distressing situations in the workplace and urged researchers studying burnout in occupations to use measurement tools accordingly to develop evidence-based practices to decrease symptoms of burnout and promote mental health and well-being.

In addition to the need for rural focused research, additional gaps in research in evaluating burnout in rural SETs, include focusing on SETs of low incidence disabilities and early career teachers. Teachers of students with low-incidence disabilities are highly susceptible to burnout and to date no studies using burnout measurement tools have focused solely on this population of SETs and how burnout is impacting them. By examining these gaps in research on burnout in rural SETs of low incidence disabilities, effective practices may be discovered in ways to be proactive instead of reactive and "get ahead" of the phenomena of burnout. Furthermore, most studies conducted on burnout in special educators have been quantitative in nature, and while significant, it is also important to examine and understand the intricacies and reasons about why SETs are experiences burnout and what it means to them. Garwood and colleagues (2018) used focus group to explore and expand on survey results; recognizing the importance in this work and encouraging future researchers to find ways to "entice individuals to share more about their experiences" (2018; p 41). Collecting and analyzing both qualitative and

quantitative data can provide comprehensive insight into burnout of rural SETs serving students with low incidence disabilities.

As evidenced, burnout can be attributed to many factors and is present in SETs around the nation, with rural teachers reporting high levels of burnout (Garwood et al., 2018). Importantly, rural SETs want their voices heard; in focus groups conducted by Garwood and colleagues (2018), the researchers found that many SETs were eager to participate simply because it was the first time someone had asked them about their experiences. This is an alarming finding. It is difficult to make positive change in the lives of SETs if they do not feel like their voices are being heard, and if questions about their experiences are not even being asked. Interestingly, Garwood and colleagues (2018) noted that the 39 SETs that scored high on the depersonalization scale did not commit to participating in the focus group. Given the level and dimension of burnout, this is not surprising. However, this speaks to the fact that researchers need to hear teachers, know their stories, and understand why they are experiencing burnout. Effective interventions and changes must be developed based on current teacher input. The use of valid measurements to gain information is vital to understanding the SETs; however, asking in-depth questions and hearing their stories is imperative to designing programs, PDs, and interventions that will truly impact their success and overall well-being, as well as decrease rural SETs levels and risk factors of burnout.

While research examining burnout in rural SETs is increasing there is still a long way to go. As a profession we must do better. Forty years ago, Helge and Marrs (1981) concluded a study by stating that "Without effective, continuous staff development including stress reduction; a relatively high rate of teacher burnout may result as rural

staff are asked to be 'all things to all people'" (p. 13). Helge and Marrs were correct, as high rates of burnout currently exist. If burnout in rural SETs is not addressed, there will continue to be detrimental impacts to these SETs and their students. Therefore, the purpose of this study was to address identified gaps in research to understand the phenomenon of burnout in rural SETs of students with low incidence disabilities. Research data were collected from SETs of students with low incidence disabilities in geographically rural areas of Kentucky.

The following research questions were addressed in this study:

Research Questions

1. What levels and dimensions of burnout are rural special education teachers of students with low incidence disabilities experiencing? What factors are related to burnout in rural special education teachers?

2. How do rural special education teachers of students with low incidence disabilities describe their lived experiences with burnout?

3. In what ways do the lived experiences of burnout among participants explain the levels and dimensions of burnout reported by quantitative measures?

Brief Explanation of Design

An explanatory sequential mixed methods design was used to examine and explore the phenomenon of burnout in rural SETs of students with low incidence disabilities. During this study, I first collected quantitative data to acquire numeric measures of the levels and dimensions of how burnout is being experienced and to explore relationships of various factors on burnout. The quantitative data were collected using a demographic questionnaire and the MBI-ES (Maslach et al., 1986) on SETs of

students with low incidence disabilities from geographically rural areas of Kentucky. In the second phase of this study, I collected qualitative data during semi-structured interviews to explore and explain results from the first phase. Data from both phases were then integrated and analyzed to gain a comprehensive and deeper understanding of how the phenomenon of burnout is affecting rural SETs of students with low incidence disabilities.

Conceptual Framework

In order to explain mixed methods research, it is important to provide details as to how I (as the researcher) shape not only the investigation but the philosophical assumptions I bring into the design of the study, the creation of the interviews, data collection processes, and proposed data analysis plan. Figure 1 represents the conceptual framework for this study beginning with worldviews and philosophical assumptions, leading to the study's purpose, the theoretical framework, and finally how the study has been informed and designed. As evidenced in the framework, all pieces are interconnected, and the framework provides insight into the design of each component.

Experiencing burnout as a former self-contained SET of students with low incidence disabilities, I am deeply invested in the thoughts and experiences of study participants. For this reason, this study was designed and implemented from a pragmatism world view with constructivism melded in. Mixed methods are often approached from a pragmatism philosophy, encompassing a "what works" approach, such as using multiple methods to best explore and answer the research question (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2003). As this study is designed to use both inductive and deductive approaches as well as subjective and objective

knowledge, pragmatism provides the foundation to best examine the research questions. However, because I am so deeply intertwined in the phenomenon of interest (burnout) with potential study participants there is also constructivism interspersed in the study. The worldviews and philosophical assumptions brought into this study are representing that the reality of what I present is shaped not only by the views and experiences of my participants but also by my views and experiences with burnout, as well as using the most practical means to fully answer and explore the research questions. I aim to understand the essence of a shared lived experience, burnout, and what that means by becoming familiar with my participants' realities (Neubauer et al., 2019; van Manen, 2017). I aim to give voice to the participants.

Figure 1

Conceptual Framework of Burnout in Rural Special Education Teachers
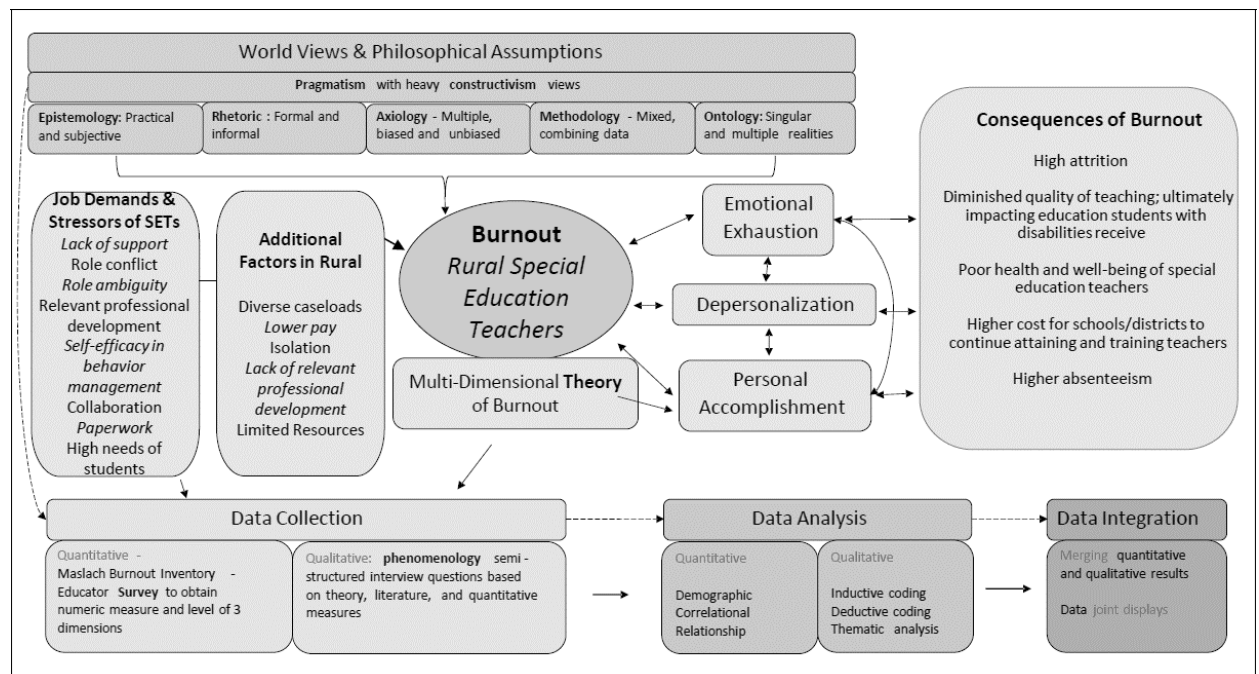
The Multi-Dimensional Theory of Burnout

The multi-dimensional theory (MDT) of burnout is "an individual stress experience embedded in a context of complex social relationships, and it involves the person's conception of both self and others" (Maslach, 1998, p. 69). There are three dimensions of MDT: emotional exhaustion, depersonalization, and reduced personal accomplishment. Burnout goes beyond everyday occupational stress, which is grounded in this theory. Burnout is not a dichotomous syndrome, meaning that there is not just a yes or no to experiencing burnout. Rather, there are several levels and dimensions that one can exhibit and experience (Maslach, 1998; Maslach et al., 2018). MDT represents that the experiences of burnout are not the same for all and individuals can experience burnout in specific areas. MDT is appropriate for framing the experiences of burnout in rural SETs due to the ability to evaluate multiple dimensions and factors independent of each other to explore how rural SETs are experiencing burnout.

Definition of Terms

Alternate Kentucky Summative Assessment. The assessment given to Kentucky students with the most severe cognitive disabilities. This assessment provides schools and programs with a valid and reliable means of assessing the instruction provided to students with moderate and significant disabilities (i.e., for the less than 1% of the total student population for whom traditional assessments would be an inappropriate measure of progress; Kentucky Department of Education, 2023).

Geographically rural areas. Rural is defined and determined as any area that is not designated to be urban as defined by the U.S. Census Bureau and represents areas that are sparsely populated, not built up, far from urban centers, and have

low housing density (Ratcliffe et al., 2016). For the purposes of this study, Kentucky counties were selected based on having been identified as having a locale classification number of 41 (rural-fringe), 42 (rural-distant), or 43 (rural-remote); or any territory that is less than or equal to 5 miles or more from an urbanized area, and less than or equal to 2.5 miles from an urban cluster (NCES, 2021).

Low-incidence disability: Defined according to IDEA's most current definition:

a) A visual or hearing impairment, or simultaneous visual and hearing impairments;

b) A significant cognitive impairment; or

c) Any impairment for which a small number of personnel with highly specialized skills and knowledge are needed in order for children with that impairment to receive early intervention services or a free appropriate public education (IDEA; 2019).

Special education teacher (SET): A teacher that provides specially designed instruction to students that qualify for special education services and have undergone a teacher preparation program that led to an Exceptional Children Teaching Certificate from the state of Kentucky. For this study, teachers must hold a valid teaching certificate awarded by the state of Kentucky and have an Exceptional Children teaching certificate in one of the following areas: moderate/severe disabilities, hearing impaired, hearing impaired with sign proficiency, visually impaired, or communication disorders (Educator Professional Standards Board; EPSB, 2018).

Temporary provisional licensure. A program that enables individuals with a non-teaching bachelor's degree to work in a Kentucky school district while pursuing their full teaching certification through an approved university program (EPSB, 2022).

Positionality Statement

In this study, my positionality as a researcher was informed by my background as a SET of students with low incidence disabilities. I have 14 years of experience as a SET in both urban and rural settings. My experiences have shaped my perspective and reality of the unique job demands and risk factors associated with burnout in this population of teachers. Furthermore, I have personally experienced burnout as a SET of students with low incidence disabilities. My experiences with burnout ultimately led me to leave the profession. I understand the realities of burnout and the detrimental effect it has on those it affects. While I strive to maintain a bias free and impartial research study, I recognize that my firsthand experience with the phenomenon of interest has the ability to influence my interpretations and interactions with study participants. I fully committed myself to acknowledge and examine my biases and experiences to ensure the study participants are the voices represented in this study, ensuring the study's validity and rigor.

In this chapter I provided an introduction, literature support, research purpose, research questions, and supporting details of this study. In summation, this study used an explanatory sequential mixed methods design to address gaps in literature, focusing on how the phenomenon of burnout is experienced by rural SETs of students with low incidence disabilities. The following chapter will address the methodology of this study.

CHAPTER TWO

METHODOLOGY

Research Design

To complete this study, I conducted a mixed methods research design (Tashakkori & Teddlie, 1998) to explore how rural SETs of students with low incidence disabilities are experiencing dimensions of burnout. Mixed method designs combine quantitative and qualitative practices, providing an opportunity for researchers to thoroughly explore and examine questions of interest by utilizing both designs in a way that integrates the collected data to allow for more in-depth analysis (Creswell, 2014). Conducting mixed methods research allows investigators the opportunity to examine complex and unresolved issues and can be used to gain a deep understanding of a phenomenon of interest. The use of mixed method research designs in the field of special education is extremely limited; only 0.63% of published studies in the top 15 special education research journals from 2007-2019 used mixed methods research (Corr et al., 2021; Leko et al., 2022). Furthermore, using mixed methods to explore complex and persistent issues in special education is needed to address pressing and unresolved issues (Leko et al., 2022; Onwuegbuzie & Corrigan, 2018). As evidenced in Chapter 1, SETs are highly susceptible to burnout and often identify burnout as a reason for leaving the profession (Berry et al., 2011; Bettini et al., 2017; Billingsley & Bettini, 2019; Brunsting et al., 2014; Garwood et al., 2018), thus providing the need for in-depth research on the phenomenon of burnout. Moreover, based on a review of the literature only one mixed

methods study has been conducted examining burnout in rural SETs (Garwood et al., 2018), providing the rationale for additional use of mixed methods research designs to examine burnout in SETs. Using a mixed methods design to further examine and explore burnout in SETs can provide meaningful and significant information to the field.

In this chapter I present the rationale for using a mixed methods design to answer my research questions; discuss methodology of each phase of the study; demonstrate the selection of the core mixed method design; and explain the quantitative, qualitative, and integration phases. Sampling strategy, instruments, data collection, and data analysis will be presented for each phase.

Design Selection and Rationale

In the following section I present the rationale for choosing a mixed methods design, determining why this method was the most appropriate method to answer the research questions. To detail the rationale for a mixed methods design, I created an implementation matrix to provide a visual representation of the planning process that highlights each research question and corresponding phases (see Appendix A). An implementation matrix is a visual representation of the procedures and components of a mixed methods study, which allows for a focus on the content of the overall study (Creswell et al., 2011).

As detailed in the matrix, the aim of Research Question 1 is to identify how rural SETs of students with low incidence disabilities are experiencing burnout. This question was best explored by obtaining quantitative data that provide a numeric measure representing the levels of burnout experienced by SETs on the three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment

(Maslach & Jackson, 1981). Research Question 2 aims to explore burnout through the lived experiences of burnout of rural SETs of students with low incidence disabilities. This question was best investigated by using qualitative methods to gain a deep understanding of the experiences of burnout in rural SETs of students with low incidence disabilities. The aim of Research Question 3 was to explore and examine how the experiences presented during the qualitative phase could be explained and/or expanded upon the quantitative data presented in phase one. This question was most effectively answered by integrating and analyzing data from both the quantitative and qualitative phases to explore, expand, corroborate, and discuss findings. The use of mixed methods was imperative to thoroughly explore and answer the research questions, as one method alone would not be sufficient. Combining both methods allowed each method to complement the other and provide the opportunity for a more exhaustive data analysis (Green et al., 1989; Tashakkori & Teddlie, 1998), thus providing rich information and detail. Using mixed methods provides the ability to integrate both designs to explore a deeper understanding and representation of how rural SETs of students with low incidence disabilities are experiencing burnout. The in-depth examination this provided would not have been possible using only one design.

A mixed methods design allowed for a thorough exploration and understanding of the experiences of burnout in rural SETs of students with low incidence disabilities, providing the opportunity to explore and examine special education issues from a methodology that can assist in examining the complex research questions (Onwuegbuzie & Corrigan, 2018). However, it was important to consider the different core designs of mixed-methods research to ensure the most appropriate mixed methods design was

selected. I explored the three core mixed methods designs according to Creswell and Plano Clark (2018). Each core design was considered when selecting the most appropriate design to best answer the research questions. These are explained in the following paragraphs.

> **Convergent design:** The researcher collects and analyzes two separate databases-quantitative and qualitative-and then merges the two for the purpose of comparing the results or adding transformed qualitative data as numeric variables into the quantitative database. (p. 447)

Convergent designs require data to be collected separately and requires the two methodologies to be analyzed apart from each other and then to compare results, or even quantify the qualitative data (Leko et al., 2022). This design could provide beneficial information to the field; however, for the purpose of this study, this design would not be appropriate. The research questions require a design that lends itself to discovering and identifying SETs that are experiencing burnout. Subsequently, the study aims to further explore this phenomenon by utilizing the results from the quantitative portion to ensure that participants selected for the qualitative portion are teachers exhibiting signs and symptoms of burnout as indicated by the quantitative data. Therefore, a convergent design was not an appropriate core design to thoroughly address the research questions.

> **Exploratory sequential design:** Three-phase mixed methods design in which the researcher starts with the collection and analysis of qualitative data, which is then followed by a design phase of translating the qualitative findings into an approach or tool that can be tested quantitatively. This means that the approach or tool will be grounded in the views of the participants. (p. 448)

Exploratory sequential designs require qualitative data to be collected first, analyzed, and then utilized to create an approach or tool for a quantitative measure (i.e., survey creation; Leko et al., 2022). While this is an important design and one to consider for future research, the purpose of the study is not to create a quantitative measurement tool that is designed based on the qualitative data provided by participants. The research questions can be answered with a measure of burnout. As there is already a validated burnout measure that is targeted for educators (i.e., MBI-ES; Maslach et al.,1986), a new measurement tool is not necessary. Therefore, an exploratory sequential design was not appropriate for this study.

> **Explanatory sequential design:** Two-phase mixed methods design in which the researcher starts with the collection and analysis of quantitative data, which is then followed by the collection and analysis of qualitative data to help explain the initial quantitative results. (p. 448)

Explanatory sequential designs require that a quantitative method be conducted first, followed by qualitative measures to explain, or further expand on the results obtained. Results are then integrated together to provide a rich and deep understanding of the topic (Creswell & Plano Clark, 2018; Fetters, 2020; Leko et al., 2022). This design lent itself perfectly to the research questions. The quantitative phase is implemented first, followed by qualitative phase to further explain, corroborate, or present incongruence of the results of the quantitative phase. Therefore, an explanatory sequential design was the most appropriate core mixed methods design for this study. Figure 2 provides a visual representation of the explanatory sequential design as it relates to this study, detailing the phases and integration points. The first phase is the quantitative phase, followed by the

qualitative phase, and concluding with a data integration phase. In the following section, I

present an overview of the use of an explanatory sequential design to address the research

questions developed for this study.

Figure 2

Explanatory Sequential Design: Burnout in Rural Special Educators

Purpose	Phase	Procedures
• Identify and obtain numeric measures of special education teachers' levels and dimensions of burnout	**Quantitative Data Collection**	• MBI-ES • Demographic questionnaire
	Quantitative Data Analysis	• Descriptive statistics • Zero-order correlation
• Determine nesting sample for qualitative phase • Develop/modify interview protocol	**Integration Phase Connecting Quantitative into Qualitative**	• Semi-structured interview participants • Semi-structured interview protocol
• Gain an in-depth understanding of the lived experience of burnout as described by rural special education teachers	**Qualitative Data Collection**	• Phenomenology • Semi-structured Interviews
• Expand, explain, or corroborate findings from the first phase	**Qualitative Data Analysis**	• Thematic coding • Use of both inductive and deductive coding
• Analyze and interpret findings gained from merging quantitative and qualitative data	**Integration Phase Merging Quantitative & Qualitative**	• Data triangulation • Joint data display

Note. MBI-ES = Maslach Burnout Inventory- Educator Survey (Maslach et al., 1986).

First Phase: Quantitative

Quantitative research allows variables to be measured to obtain numeric data that can be statistically analyzed (Creswell, 2014). In the first phase, a survey design was used. This phase has two goals. First, to obtain a numeric measure of the levels and dimensions of burnout SETs are experiencing. Second, to use this data to identify participants for the second phase of the study. Considering this phase was aimed in identifying levels and dimensions of burnout, survey research was used to gain a quantitative (numeric) measure of burnout. Survey research is used when specific variables of a population need to be provided; this can be done by surveying a sample of the population (Creswell, 2014). The MBI-ES (Maslach et al., 1986) was used to collect data. The MBI-ES is the most widely used and accepted instrument measuring burnout in educators (Maslach et al., 2018; Emery & Vandenberg, 2010). Additionally, a demographic questionnaire (see Appendix B) was administered to examine relationships and associations between burnout dimensions and demographic variables of participants. More detailed information discussing measurement instruments is provided in the data collection section. The results of this phase were integrated with the second phase (i.e., qualitative) to revise the interview question protocol and guide participant selection.

Second Phase: Qualitative

A qualitative phenomenological approach was used in the second phase. Qualitative designs allow researchers to gain an in-depth understanding of the meaning people give to experiences (Creswell, 2014). The purpose of this phase was to gain an in-depth understanding of the lived experience of burnout as described by rural SETs of

students with low incidence disabilities. The rationale for this phase was that while the quantitative phase provides the numeric measures to answer the research questions, the qualitative phase can gain a more in-depth understanding of how and why the phenomenon of burnout is impacting rural SETs of students with low incidence disabilities. While both the quantitative and qualitative phases examined how burnout affects SETs, the quantitative phase focused on determining the individual dimensions and levels of burnout experienced, whereas in the qualitative phase I delved into how these participants described their experiences with burnout. Qualitative data were used to expand, explain, and corroborate findings or contradictions from the first phase. This phase was designed to answer Research Question 2, which examined how participants described their lived experiences with the phenomenon of burnout. For this reason, a phenomenological approach was the most conducive qualitative design to address this question. Phenomenological research aims to make sense of a lived experience or phenomenon (Starks & Trinidad, 2007). A phenomenological approach is appropriate when wanting to explore and describe the overall essence of a phenomenon (burnout) and how individuals (SETs) experience and describe their lived experiences with the shared phenomenon (Creswell & Poth, 2018). Phenomenological inquiry provided a rich and deep understanding of the burnout from the experiences of study participants.

Phenomenological inquiry requires bracketing by the researcher (Creswell & Poth, 2018; Lopez & Willis, 2004). Bracketing, a conscious effort researchers of phenomenological studies employ to set aside, "as far as humanely possible", all preconceived experiences to focus on the participants (Moustakas, 1994). Bracketing encourages researchers to discuss their experiences with the phenomena and set them

aside to fully focus on the participants' experiences with the phenomena. Bracketing provides transparency of the researcher and allows readers of the study to know the author has been honest and open about their experiences. Readers can use this information to be aware of authors influence on data and if the authors analyzed the data with or without representing themselves in the analysis (Moustakas, 1994). Understanding the researcher's voice and lived experiences, and how they are interpreting the meaning and lived experience of the phenomenon, is of vital importance (Reiners, 2012; Vagle, 2018) to gain "a grasp of the very nature of the thing" (van Manen, 1990, pp. 177). As a former SET who experienced burnout in high levels, it is important to disclose that I am deeply interwoven in the shared experience of burnout with study participants, and for that reason my personal experiences with burnout have shaped my views of burnout and allowed me to relate to participants' experiences (Lopez & Willis, 2004; Reiners, 2012). As the researcher, I am aware of the subjective perspective that my experiences present in this study. My experiences, beliefs, and perspectives can influence data interpretation. However, by employing bracketing and being aware of my potential influence, I am making a conscious effort to set aside my experiences and bias to allow the data to form naturally. This effort aids in enhancing the reliability, validity and trustworthiness of the data and findings. The transparency I provide allows me to proceed by acknowledging and setting aside my experiences, to focus on the lived experiences of study participants.

Mixed Methods Integration

Integration is a large component of designing, implementing, analyzing, and reporting mixed methods studies. Integration is when components of both the quantitative

and qualitative phases come together to provide something that could not be created by either phase independently (Fetters & Molina-Azorin, 2017). This study applied integration strategies at three individual points in the study (see Figure 2). First, integration occurred after the quantitative data had been collected and analyzed to identify participants eligible for the qualitative phase. Second, integration occurred by connecting the data of the quantitative phase to review and revise the interview protocol administered during the qualitative phase. Furthermore, at this stage, participant selection of the second phase was determined by a nesting relationship sample, which entailed determining participants based on the results and sample of the first phase (Fetters, 2020). Third, integration occurred by merging the results of data of both phases to explain, corroborate, or report incongruence, thus providing an in-depth analysis of all data collected to present a thorough investigation of the experiences of burnout presented by SETs of students with low incidence disabilities. The rationale for this phase is that integrating the data allows for a more thorough examination of the phenomena of burnout that neither methodology would have provided independently.

In the preceding sections I provided the study's framework, addressed the core design, and gave an overview of the phases of this explanatory sequential design study. I will now outline the study procedures for each phase. I will address the sampling strategy, data collection procedures, and data analysis procedures for both the quantitative and qualitative phases. In the data analysis plan for the third phase (mixed methods integration), I provide procedures on how I used data from both phases to explore relationships, corroborate findings, and to discuss opposing findings.

Study Procedures

Sampling Strategy

In this study I employed three phases of sampling strategies to obtain and ensure participants met inclusion criteria of each phase and to maintain focus on SETs of students with low incidence disabilities from geographically rural areas. Figure 3 represents the explanatory sequential design sampling strategy used. Potential participants were first identified using a clustered sampling procedure, which is a type of participant sampling procedure that can be used when the researcher does not have immediate access to the names of individuals in the target population (Creswell, 2014). All participants were recruited following procedures approved by the institutional review board. The first phase of sampling encompassed identifying potential participants for the study by contacting the Director of Special Education of each qualifying district and the Kentucky Special Education Cooperative Network via email. Local school district websites and educational cooperative websites were used to obtain the names of Directors of Special Education of qualifying districts and special education personnel from regional educational cooperatives. Eighty-nine counties in Kentucky meet the definition of rural for this study. Inclusion criteria for initial participant recruitment were (a) must be special education teachers and (b) must teach in a geographically rural area. Initial recruitment emails and two follow-up emails were sent to 166 Directors of Special Education and Kentucky Special Education Cooperative Network individuals. This led to the return of 96 SET emails and two educational co-operatives agreeing to forward the recruitment email to the SETs in their districts. All individuals that met inclusion criteria received recruitment emails.

Figure 3

Sampling Strategy for Explanatory Sequential Design

Stage				
Identify Rural Counties in Kentucky	120 Counties in Kentucky	89 Met Qualification		
Obtain Contact Information for SETs	Directors of Special Education	Regional Educational Cooperatives	166 Initial recruitment emails	
Contact information for SETs	96 SETs emails	2 Educational Cooperative Personnel agree to forward recruitment email		
Intial Recruitment with Survey	80 Responses	7 excluded due to not proceeding past informed consent		
Quantitative Participant Sample	23 met full inclusion for SETs of rural low-incidence populations			
Qualitative Participant Sample	9 random selection recruitment emails	7 conducted; 1 removed for not being fully certified	4 follow-up emails sent	6 Interviews

Participant Selection Quantitative Phase

Upon completion of the surveys, the researcher transferred survey information into Microsoft Excel to allow for survey data to be analyzed and screened for inclusion criteria for analysis of quantitative and qualitative data. Participants were selected using convenience sampling with a criterion-based sampling scheme (Collins et al., 2007). This sampling scheme ensured participants met the inclusion criteria and were willing to

participate. Due to the variety in definitions for special education certification and placement options, I determined participant eligibility based on information requested in the demographic survey. A primary purpose of this study is to focus on rural SETs who teach students with low incidence disabilities. Therefore, additional inclusion criteria for study sample were that SETs had to indicate they provided services to students that qualified for alternate assessment administration or self-contained early childhood/ primary grades with students having qualifying disabilities according to the definition of low incidence disability (IDEA; 2019). Special education teachers with temporary provisional licenses were not eligible to participate in this study. Of the 73 survey responses, 23 met full-inclusion criteria for the study. This was due to the focus on SETs of students with low incidence disabilities, which was determined based on results of the demographic survey. General demographic information and the SETs background and experience was collected in a demographic questionnaire. A final question was included to determine the participant's willingness to participate in follow-up interviews. A total of 21 of the 23 SETs (91%) were willing to participate in the second phase of this study.

Participant Selection Qualitative Phase

For the qualitative phase, I selected participants through a purposeful sampling strategy based on the results of the quantitative phase (Creswell & Plano Clark, 2018). Participants were selected based on their results of the MBI-ES (Maslach et al., 1986) and must have indicated on the survey their willingness to participate in interviews. Furthermore, participant selection in this phase also represents an area of integration for mixed methods. Participant selection in this phase represents a nested sampling

relationship between the quantitative and qualitative samples (i.e., this participant sample

was a subset of the quantitative sample; Fetters, 2020).

Phase I: Quantitative Phase

Data Collection

The first phase focused on identifying how rural SETs are experiencing signs of burnout. The primary technique for obtaining a quantitative measure of burnout was survey design. Participants received the MBI-ES (Maslach et al., 1986) and a researcher created demographic questionnaire (see Appendix B). Permission to use the MBI-ES was obtained upon purchasing the license (see Appendix C).

Quantitative Variables

The MBI-ES (Maslach et al., 1986) is the most comprehensive and nationally recognized measurement tool to obtain numeric measures of the three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al., 1986). The MBI-ES consists of 22 items, rated on a 7-point Likert scale, 0-7, from "Never" to "Every Day." Each dimension receives an individual score, and dimension scores are not to be combined, as burnout is not a dichotomous variable and can be experienced in various levels on each dimension; therefore, an overall score is not recommended (Maslach & Jackson, 1981).

Emotional Exhaustion is defined as "feelings of being emotionally overextended and exhausted by work" (Maslach & Jackson, 1981, p. 101). Scores of 27 or higher represent high levels of burnout. Depersonalization is defined as "unfeeling and impersonal responses toward recipients of one's instruction" (Maslach & Jackson, 1981, p. 101). Scores of 14 or higher represent high levels of burnout. Personal Accomplishment is defined as "feelings of competence and successful achievement in one's work" (Maslach & Jackson, 1981, p. 101). For this dimension lower scores indicate

higher levels of burnout. Scores of 0-30 represent high levels of burnout. More detailed variable information was presented in Chapter 1 (see pp. 26-28).

In addition to the MBI-ES (Maslach et al., 1986), participants completed a demographic questionnaire created by the researcher (see Appendix B). A demographic questionnaire was created using Qualtrics Software (XM; 2020). Questionnaires were administered to obtain demographic information to allow for descriptive and inferential analysis. Information obtained included participants' age, gender, race, years of teaching special education, highest degree obtained, current grade levels taught, type of classroom setting, type of teaching certification, disability categories of students taught, and mentored experience. Two follow-up questions were included to indicate if participants would be willing to participate in follow-up interviews for the second phase of the study, and to identify if teachers would be interested in a social support intervention. Demographic questions were open-ended and close-ended, with several questions including an "other" option which allows the participant to write in their answer.

The MBI-ES (Maslach et al., 1986) and demographic questionnaire were web-based and accessed through a link provided via email, allowing for easy transfer of data into SPSS and Microsoft Excel formats for analysis. Ninety-six emails were sent, with two districts agreeing to forward the recruitment email to the SETs in their districts. Potential participants received an informed consent prior to beginning the survey (see Appendix D) that must be acknowledged before beginning the survey. The informed consent detailed the purpose and importance of the survey, as well as the opportunity to be entered into a random drawing for a chance to obtain one of five $50 Amazon gift cards upon completion and submission of the survey. Contact about the survey was

conducted using a three-follow-up survey sequence (Dillman, 2000) to increase response rate. Participants received the initial email with an invitation to participate in the study after IRB approval was obtained (see Appendix E). Participants were sent follow-up emails in three predetermined time limits: (a) 5 days post survey distribution, (b) 10 days post survey distribution, and (c) 2 weeks post survey distribution, reiterating the importance of the study (see Appendix F). Three weeks after the survey was distributed, all completed surveys in which the respondent indicated their willingness to be entered into the random drawing were entered in a computer database random generator and five random names were selected to win the gift card. Upon completion of the survey, 80 SET teachers accessed the link provided, however, seven were incomplete due to not moving past the informed consent page.

Reliability and Validity

Tests of reliability and validity are important in quantitative research to determine whether the measurement instrument is accurate and consistent in measuring what it is intended to measure (Boeteng et al., 2018; Thorndike, 1997). Cronbach's alpha and test-retest are the most common reliability testing. The MBI-ES (Maslach, 1986) is a modified version of the original MBI (Maslach & Jackon,1981), changing only the wording "recipient" to "student" to clarify the language common for teachers. The MBI (1981) and MBI-ES (Maslach et al., 1986) are highly validated instruments that have demonstrated reliability over time. Early reliability tested of MBI dimensions included: EE (α =.90), DP (α =.76), and PA (α =.76; Iwanicki & Schwab, 1981). More recent testing on teachers reveals a consistent score: EE (α = .87), DP (α = .76), and PA (α = .84; Chang, 2013). In a more recent study conducted with SETs, consistent scores on reliability were shown as well: EE (α = .93), DP (α = .84), and PA (α = .88; Garwood et

al., 2018). In a study conducted by Maslach and colleagues (2018), test-retest reliability produced slightly lower levels of reliability: EE (α = .60), DP (α = .54), PA (α = .57). To ensure reliability of MBI-ES for this study, Cronbach's alpha was calculated for each dimension of burnout: EE (α = .86), DP (α = .51), and PA (α = .62). Cronbach alpha scores can range from 0-1 with higher scores indicating higher reliability. Sample size and the number of survey items can have an impact on Cronbach's alpha scores. Given the low sample number and small number of survey items on the MBI-ES, it is possible these are related to the less than desirable scores DP and PA received.

Validity testing in quantitative research ensures that the intended construct the researcher aims to measure has been successful (Boeteng et al., 2018; Thorndike, 1997). Content validity consists of an evaluation of prepared questions by both experts and a sample of the target population (Boateng et al., 2018; Hinkin, 1998). Content validity is important to the overall construct validity because it ensures each potential question can measure the domains of interest. Content validity can be accomplished by having experts review the prepared questions and conduct cognitive interviews. Cognitive interviews require drafted items be administered to the target population, to allow for drafting and revising or measurement tool (Boeteng et al., 2018). Content validity of the MBI-ES (Maslach et al., 1986) has been demonstrated as evidenced in literature that continues to assess relationships between the individual burnout dimensions and different variables of work life (Byrne, 1994; Chang, 2013).

Construct validity is best defined as the overall goal of the measurement instrument and links theory and psychometric measure. Construct validity can be determined by conducting factor analysis of survey items and measurement of instrument

correlating with other measurements intended to measure the same construct (Hinkin, 1998). Construct validity of the MBI-ES (Maslach et al., 1986) has been assessed to ensure comparable psychometric properties of the original MBI (Maslach & Jackson, 1981). A cross-validation study factor analysis (Iwanicki & Schwab, 1981) was conducted, and results were consistent and demonstrated the constructs and dimensions in the MBI (Maslach & Jackson, 1981) were consistent with the creation of the MBI-ES (Maslach et al., 1986).

In closing, the data collection procedures of the quantitative phase were successful in obtaining a quantitative measure of burnout in a very specific population of teachers. However, to strengthen statistical analysis and statistical power the researcher hoped for a larger sample size. Follow-up emails were sent and while these efforts did increase overall survey completion, the final sample size included 23 participants who met full inclusion criteria. While this number is not sufficient to provide a high power or statistically significant analysis, the data can still provide valuable information on how this population of teachers are experiencing burnout and areas of future research.

Data Analysis

The quantitative phase of the study had three aims: (a) identify participants who are experiencing burnout regarding the dimensions and levels obtained from the MBI-ES (Maslach et al., 1986); (b) determine relationships and associations between levels and dimensions of burnout with demographic variables; (c) and determine eligibility of participants in the second, qualitative phase by using survey results to guide participant selection. All data were screened for identifying participant information prior to analysis. Identifying information was removed and a respondent number was given. Data

screening was conducted prior to statistical analysis to test for normality of data, any outliers, and/or missing data, and is more thoroughly discussed in the results sections.

While it is not possible to estimate the number of SETs that received recruitment emails from their DoSEs or educational co-operatives, the response rate for surveys sent directly to SETs was 76%. Of all completed surveys 24% met full inclusion criteria. Quantitative data provided numeric measures of the individual levels and dimensions of burnout and allowed for analysis between levels and dimensions of burnout and demographic variables. Rural SETs of students with low incidence disabilities are a small portion of teachers in individual districts, especially in smaller, rural districts. While exact numbers are unknown, it is common for rural districts to have just one or two SETs. Descriptive statistics and inferential analyses were conducted as planned; however, the small sample size should be considered when reviewing and interpreting results and is further discussed as a limitation to overall results of the study findings.

To effectively address Research Question 1 and to integrate data with the qualitative phase, descriptive statistics and zero-order correlation analyses were conducted on participants' survey and demographic responses. The procedure for each statistical analysis is described in the following paragraphs.

Descriptive Statistics

Descriptive statistics are used to measure central tendency (mean, median, and mode) and measures of variability (variance, standard deviation, and range). Examining descriptive statistics is important to understand the data, to ensure the sample data meet statistical assumptions, and to gain a visual representation of sample characteristics of interest. Furthermore, descriptive statistics were used to ensure participants meet

inclusion criteria. Descriptive statistics were conducted for all MBI-ES (Maslach et al., 1986) dimensions and demographic variables. Descriptive statistics are reported and further discussed in the following chapter.

Pearson's Correlation Coefficient

Correlations are used to show the direction and strength of a linear relationship between quantitative variables. Examining correlations is important to research as it determines if a relationship between variables exists and can allow for a visual representation of the relationship. By using correlation testing, the direction and strength of the relationship between selected variables of interest and levels of burnout for individual dimensions can be determined. Additionally, correlation testing provides a basis for additional statistical analysis if necessary. Pearson's correlation testing was conducted using continuous variables, including the raw numeric burnout scores on each dimension and the following demographic variables: age, years teaching special education, and number of students on caseload. The demographic variable licensure route was dummy coded to be included in the correlation analysis. Dummy coding is a coding method in which categorical variables are coded to be a dichotomous variable, 0 or 1. This allows for inclusion in statistical analysis. Moreover, 18 of the 23 participants identified themselves as female, and most demographic categories were similarly unbalanced.

Descriptive and correlational analysis provide the necessary information to answer the first research question, as well as address the overall aims of the quantitative phase. All statistical analyses were conducted using Statistical Package for Social Services software (SPSS) version 29 and Microsoft Excel. Results and findings of

statistical analyses are presented in visual and discussion form in the following chapters. Having discussed the data collection and data analysis procedures for the quantitative phase, in the next section I will discuss the data collection and data analysis procedures for the qualitative phase.

Phase II Qualitative

The second phase of this study is the qualitative phase. Qualitative research allows for a deeper exploration and understanding of social processes of participants and provides rich and detailed insights (Creswell, 2014; Miles et al., 2020). A phenomenological design (Husserl, 1970) was used to gain a deeper understanding of how rural SETs of students with low incidence disabilities are experiencing burnout. In the follow sections, I discuss the data collection and data analysis procedures according to phenomenological design.

Phenomenological research aims to describe the meanings of "lived experiences" represented and shared by several individuals experiencing the same phenomenon (Creswell & Poth, 2018). Data are collected and analyzed to describe what participants experience and how they experienced it (Moustakas, 1994). This study was designed using the guidance of Creswell and Poth (2018) and Moustakas (1994). Steps taken to engage in phenomenological research include (1) identify and determine a phenomenon of interest (burnout)*;* (2) consider and include philosophical assumptions (epistemological); (3) collect data from individuals who experience the phenomenon of interest *(*conduct semi-structured interviews*);* (4) analyze data (coding data and analysis of important statements); (5) develop descriptions (based on knowledge gained from data collection and data analysis); (6) report the essence (provide written statement of the essence of burnout); and (7) provide understanding of the phenomenon (written

description of study). Each step was considered, planned for, and evidenced throughout the preceding and following sections.

Data Collection

Data were collected using semi-structured interviews (see Appendix G). The interview protocol was drafted and developed according to the theoretical framework, expanding on information presented in the MBI-ES (Maslach et al., 1986) and the demographic questionnaire. Furthermore, a characteristic of semi-structured interviews is that it allows for the interviews to explore issues and topics that come up in discussion and allow for flexibility while remaining structured (Merriam, 1998). Probing questions were developed and included in the protocol to prompt opportunities for participants to elaborate on their experience with burnout.

The interview protocol was developed using the theoretical and conceptual framework (see Figure 1). Also, preliminary interviews were conducted with three rural SETs showing signs and symptoms of burnout during Fall 2022 and Spring 2023. Results of these interviews led to the modification of questions to provide more clarity and conciseness for the participants. Furthermore, as a data integration point, interview questions were reviewed upon completion of surveys and two changes were made. Question #13, "If a social support intervention were to be implemented with special education teachers in similar settings as you, would you be interested in participating" was removed as it was a duplicate from the survey. Additionally, individual results of the MBI-ES can be presented during interviews to encourage elaboration or discussion as needed. The final interview protocol included 12 open-ended questions.

All interviews for this study were conducted during November and December of 2023 virtually via Microsoft Teams, a video conference platform that allowed for recording and transcription of interviews (with permission of participants). Informed consent was shared, and participants gave verbal agreement to participate and be recorded (see Appendix H). Data were collected through the transcription analysis, interviewer notes taken during the interview, and additional memos upon viewing the recordings (i.e., a process in which researchers document their thoughts and ideas for later analysis; Creswell & Poth, 2018).

Data Analysis

Data analysis was conducted using the guidance of the Data Analysis Spiral (Creswell & Poth, 2018). Components included: (a) data collection, (b) managing and organizing the data, (c) reading and memoing emergent ideas, (d) describing and classifying codes into themes, (e) developing and assessing interpretations, (f) representing and visualizing the data, and (g) presenting the findings. Both inductive and deductive approaches were planned for and utilized in the data analysis. Based on the preliminary interviews, I determined that using both inductive and deductive approaches would be the most conducive way to answer the research questions. This decision was informed by the fact that burnout already has a priori or predetermined codes, namely the three dimensions: emotional exhaustion, depersonalization, and personal accomplishment. (Maslach & Jackson, 1981). While conducting data analysis on preliminary interviews, I was looking to "fit the data" into predetermined codes according to the dimensions. While this approach was highly effective and allowed dimensions of burnout and risk factors to be explored, it is equally important to not "force

fit" data and to allow data to represent what it intends to (Saldaña, 2021). Data analysis is cyclical and upon reviewing the literature and the theoretical framework it is unrealistic to expect I completely remove deductive thinking while analyzing data. Therefore, data analysis procedures used both inductive and deductive approaches.

Before beginning any data analysis (see Figure 4) I first managed and organized the data. This consisted of reading the transcripts, viewing the recorded interviews, then simultaneously viewing the recording and transcriptions to ensure the recorded transcription was accurate and to begin to develop a strong sense of the interviews. Confidentiality of participants was ensured by immediately masking the names, and conducting a thorough examination of transcripts to ensure identifiable information was not present. Since participants are from small rural areas and some schools/districts may have only one or two SETs of students with low-incidence disabilities, it is important to ensure confidentiality by removing any potentially identifying information (Creswell & Poth, 2018). I reviewed and memoed thoughts and ideas several times for each transcript (Agar, 1980; Miles et al., 2020; Saldaña, 2021). This allowed me to "immerse [my]self in the details, trying to get sense of the interview before breaking it into parts" (Creswell & Poth, 2018, p. 103). Once I had a strong sense of each interview, I engaged in several rounds of coding, which led to codes, categories, and themes. Additionally, a computer-assisted qualitative data analysis software program, ATLAS.ti (version 23; https://atlas.ti.com) was used to organize qualitative data and assist in data analysis.

Figure 4

Qualitative Data Analysis Process
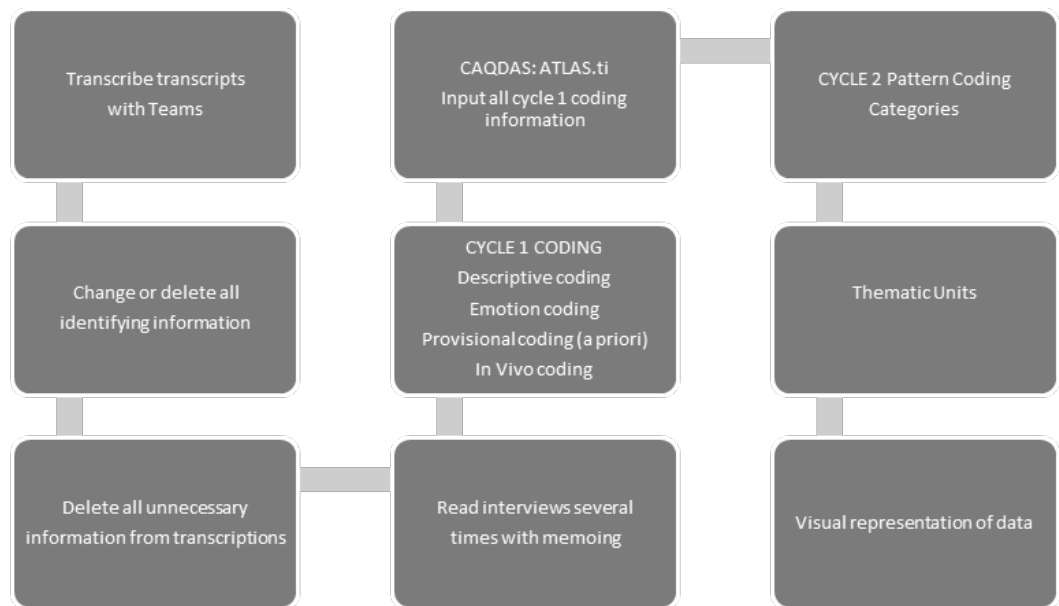
First and second cycle coding are discussed as part of the data analysis process. The remainder of the qualitative thematic analysis is presented in Chapter 3.

First cycle coding

The first cycle coding was conducted according to the guidance of Saldaña (2021) and Miles et al. (2020). Table 1 presents the different coding methods used and provides an example of each. There was significant importance to thoroughly honor and represent the phenomenon of burnout. To ensure this, provisional coding was conducted to ensure the dimensions of burnout were being represented in participants' experiences. Additionally, I took an inductive approach to first cycle coding to ensure I was also allowing the data to represent findings outside of the provisional coding. Completion of first cycle coding led to 75 individual codes from participants in the high level category, 60 codes from participants in the moderate level category, and 32 codes from participants in the low level category.

Table 1

Qualitative Coding Definitions and Examples

Type of Code	Definition	Example
Descriptive	A succinct label or phrase used to capture the essence of data	There's a couple of us that meet a couple times at a gym, and we don't talk work. We just come and work out and work out frustrations. (Coping Strategies)
Provisional/ a priori	Codes determined prior to coding	I'm exhausted from my job now; I'm exhausted because of all the needs all day. It will exhaust you and frustrate you. (Emotional Exhaustion)
In vivo	Verbatim language used by the participant	"I don't care as long as we all survive."
Emotion	Interpersonal and/or intrapersonal participant experiences expressed through emotions	It's heavy, it's heavy working with kids with MSD.

Note. Adapted from Onwuegbuzie et al. (2016).

Second cycle coding

The second cycle coding was conducted according to the guidance provided by

Miles and colleagues (2020) and Saldaña (2021). Pattern coding was utilized to condense

the developed codes from first cycle coding into smaller analytic units to further analyze

the data. This was accomplished by categorizing the initial codes for each level into more

manageable categories. I began with developing a spreadsheet in Excel and reviewed

each code, determining a category it would fit into. The first several codes created new

categories. When codes fit into already created categories I placed them there. I did this

for the complete list of codes for each level. I did not want to "force fit" any data, so if a

code did not fit into a category or a new category was not determinable, the code was highlighted, and returned to after completing the categorization process. After completing this process, I reviewed each highlighted code and determined all remaining codes were an intrinsic feeling or emotion expressed by participants. For this reason, a new category was created for these codes, emotion coding (Saldana, 2021). The categorization process of each level led to 16 overall categories: career path, work demands, emotional exhaustion, depersonalization, personal accomplishment, isolation, collaboration, rural specific, relationships, job stressors, coping skills, social support, work/life balance, professional support, emotions, recognition as a professional, and previous burnout.

Credibility and Trustworthiness

Qualitative research requires different means to determine the quality and representation of the study. Whereas quantitative research focuses on mitigating issues of reliability and validity, qualitative research focuses on credibility, or trustworthiness (Lincoln & Guba, 1985). This can be addressed by a verification process as evidenced by ensuring transparency in my research design and plan, which can also enhance replication studies (Creswell, 2003). This was accomplished by presenting clear research questions, my role and experience with the topic (previously presented), finding and reporting the parallelism and findings between and among participants, and connecting practice to theory.

Validation of findings provides credibility to the findings I present (Merriam, 1998). Triangulation of data is a widely used practice in qualitative data analysis. Triangulation of data is important as it shows that at least three independent measures support data findings (Miles et al., 2020). Additionally, Denizen (2001) provides four

types of triangulations: (a) data source, (b) methods, (c) researcher, and (d) theory. Data

source triangulation was used with each individual semi-structured interview serving as a

data point (discussed in results). Furthermore, memoing was used throughout the data

collection and data analysis, providing another means of which I was able to describe the

processes I engage in to reach the findings (Miles et al., 2020; Saldaña, 2021).

In summation, data analysis of qualitative findings was explicated through a

several step process and presented in its entirety. Having presented the data collection

and analysis procedures for both quantitative and qualitative phases, I next discuss data

integration of both phases.

Phase III: Data Integration

Data integration (i.e., using both qualitative and quantitative components to create

something new) is a distinct feature of using mixed methods research and is something

that is not possible using just one of the research methods (Fetters & Molina-Azorin,

2017). This phase addresses Research Question 3, "In what ways does the lived

experiences of burnout among participants explain the levels and dimensions of burnout

reported by quantitative measures?" The aim of this question is to create something new

from the data, to learn something about burnout in rural SETs of students with low

incidence disabilities that we could not have determined using just one methodology. In

the sections to follow, I will explain the data integration procedures across multiple

research stages.

As previously discussed, this study has been designed to incorporate several

phases of data integration (see Figure 2). First, participant selection for the qualitative

phase was determined using results of quantitative phase results. Second, semi-structured

interview questions were reviewed to incorporate results of quantitative phase. Lastly,

data from both phases were integrated and analyzed. Both merging and connecting

integration strategies were implemented throughout this study. Merging integration

strategies are used to compare or relate data (Fetters et al., 2013). Whereas, connecting

integration strategies are used to connect or explain one phase to another phase (Fetters et

al., 2013). Connecting strategies were implemented first and evidenced from the use of

data obtained in the quantitative phase to inform and guide participant selection and

review of semi-structured interview questions of the qualitative phase. Secondly, the data

were merged to explore the results of both phases together, as well as gain a more

thorough understanding of burnout in rural SETs of students with low incidence

disabilities. To further represent the integration of the methods and data, joint displays

were developed to provide a more in-depth analysis, explain the variables associated with

burnout and themes developed from semi-structured interviews, corroborate findings,

discover contradicting findings, and provide a visual representation of the quantitative

and qualitative data (Fetters et al., 2013; Miles et al., 2020). These findings are discussed

in the following chapter.

Legitimation of Data

Just as quantitative and qualitative research have different standards about what

constitutes quality research, mixed methods research has its own indicator of quality

research that must be met as well-legitimation of data (Johnson & Christensen, 2020;

Onwuegbuzie & Johnson, 2006; Perez et al., 2023). Legitimation of data refers to

"assessing the trustworthiness of both the qualitative and quantitative data and

subsequent interpretations" (Johnson & Onwuegbuzie, 2004, p. 22). Legitimation ensures

the overall quality of the study and its components and can be used to address threats to validity of the mixed methods research design. Potential legitimation issues of explanatory sequential designs include not fully exploring quantitative results, not explaining contradictory results obtained by both phases, and not integrating the results of the separate phases (Creswell & Plano Clark, 2018). These threats to validity can be minimized by incorporating legitimation of data strategies. Furthermore, legitimation has been determined to be a quality indicator of mixed methods research in special education research (Leko et al., 2022). For this reason, it was particularly important to be aware of issues that could arise in this study, plan to mitigate potential issues, and provide transparency in reporting legitimation. The following legitimation types were recognized and carefully planned for in this study aiding in minimizing the threats to legitimation.

Sample integration legitimation is the extent to which conclusions are drawn from samples of both phases that are integrated effectively (Johnson & Christensen, 2020; Onwuegbuzie & Johnson, 2006). This threat to legitimation is addressed and evident by ensuring participants in the qualitative phase were selected using the nesting sampling strategy from the quantitative phase and using quantitative data to ensure purposeful sampling measures for the qualitative interviews.

Integration legitimation is achieved by integration that has been successfully planned for and evident throughout the study. (Johnson & Christensen, 2020; Onwuegbuzie & Johnson, 2006). This threat to legitimation was mitigated by purposeful and specific planning for integration stages throughout the study, providing visual joint displays of results and ensuring transparency of data analysis processes.

Sequential legitimation ensures that the second phase of the study (i.e., qualitative) builds upon the first quantitative stage as planned (Johnson & Christensen. 2020; Onwuegbuzie & Johnson, 2006). Sequential legitimation is demonstrated by ensuring transparency and intentional procedures in utilizing the quantitative phase to guide participant selection for the qualitative phase and to inform the development of interview protocols.

Additionally, peer debriefing was implemented. Peer debriefing is used to further establish credibility and validity in qualitative studies. Lincoln and Guba (1985) define peer debriefing as "the process of exposing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind" (p. 308). Peer debriefing requires one to engage in reflective discussion with fellow researchers or peers to examine the data collection and analysis process. The peer(s) provides input and feedback that enables qualitative researchers to recognize any potential biases, assumptions, or oversights (Cooper, 1997; Lincoln & Guba, 1985). By incorporating peer debriefing in this study, another level of methodology transparency and the pursuit of rigorous research is underscored.

Advantages and Limitations of the Sequential Explanatory Mixed Methods Design

The advantages and limitations of this sequential explanatory design have been discussed extensively in literature. The advantages include utilizing both methods to gain a deeper understanding while leveraging the strengths of each design and measurement tool. This approach allows for the development of richer insights and the exploration of research questions that cannot be addressed using only one method. Additionally, the sequential explanatory method enables implementation to be carried out by a single

researcher (Creswell, 2003; Creswell & Plano Clark, 2018). Furthermore, mixed methods design allows researchers to develop skills in forms of research while allowing for multiple publications from a singular study (Fetters, 2020).

Limitations or challenges that may be present include ensuring that there is appropriate time to conduct and complete a rigorous study, feasibility of data collection and analysis, and preparing for the possibility that quantitative results may present unsignificant findings (Creswell, 2003; Creswell & Plano Clark, 2018; Fetters, 2020). The advantages of using a mixed methods design to answer the research questions far outweigh the potential limitations of the design; however, it was necessary to plan for and consider how limitations can impact study development, implementation, and completion. To mitigate limitations several processes were developed and implemented. A detailed study timeline was developed to ensure respective phases remained on track. Additionally, conducting virtual interviews increased flexibility in scheduling to accommodate teachers scheduling. Furthermore, all integration phases were successfully planned for and implemented, as well as ensuring validity and reliability of quantitative data was evident, credibility of qualitative data was planned for and implemented, and legitimation of the study design was planned for and implemented as evidenced.

Research Permission and Ethical Considerations

Ethical issues were considered and addressed for all phases of the study according to Creswell and Poth (2018), Miles et al. (2020), and guidelines presented by the University of Louisville Institutional Review Board (IRB). Permission from university IRB was obtained prior to contacting any potential participants or collecting data (see Appendix I). Informed consent was developed and distributed to each participant (See

Appendices D & H). Confidentially and respecting the interviewees' thoughts and feelings was of utmost importance. Participant confidentiality was ensured by providing numeric codes to surveys, using pseudonyms in interviews, and ensuring no identifying information was released. Upon completion of interviews, any identifying information (names, school name, location, etc.) was removed and/or changed. Additionally, ethical consideration was given during data analysis to ensure the voices of all participants were equally present in coding and reporting of data, as well as evidenced in all components of this study.

In conclusion, this chapter has provided a comprehensive overview of the study design and methodology. Each aspect of this explanatory sequential mixed methods design has been planned and detailed to conduct a rigorous and valid study. The following chapters will detail the results of the quantitative, qualitative, and integration phases providing invaluable information regarding the phenomena of burnout as it is experienced in rural SETs.

CHAPTER THREE

RESULTS

The purpose of this study was to answer three main research questions. The first question was designed to examine how rural SETs of students with low incidence disabilities are experiencing burnout by determining participant's levels and dimensions on the MBI-ES (Maslach et al., 1986). The second question was written to explore the phenomena of burnout through semi-structured interviews to gain an in-depth understanding of burnout in rural SETs of students with low incidence disabilities. Finally, the third question allowed for an examination of how the results of semi-structured interviews could provide information to expand on the quantitative results. In this chapter, I present results using a contiguous approach. As the design requires the sequential use of the quantitative phase first, followed by the qualitative, and concluding with the integration of collected data from each phase, the results of each phase will be presented with respect to the study design and corresponding research question for each phase. First, demographic information of the overall study sample is presented. Second, descriptive and inferential analyses are presented based on results of the MBI-ES (Maslach et al., 1986) and the demographic questionnaire. Third, interview results and findings are presented. Finally, results of the integration of survey and interview data are provided.

Demographic Information of Participants

There were 23 SETs included in the quantitative phase. Twenty reported their age ($M = 43.2$, $SD = 8.1$, range = 28-59). Twenty-two reported the number of years teaching experience ($M = 14.2$, $SD = 8.8$, range = 1-25). Twenty-two reported the number of students on their caseload ($M = 9$, $SD = 2.6$, range 5-14). The sample was mostly female (78%) and 100% Caucasian, which is representative of rural school districts in the study. Almost all teachers that responded held a master's degree (95%), all were fully certified in special education and almost two-thirds obtained certification in a traditional manner (65%). There was a roughly equal representation of grade levels taught (elementary, 30%; middle, 22%; high school, 30%). SETs worked in a variety of settings, most commonly delivering services in a self-contained setting (44%). Almost all SETs taught students that qualified for alternate assessment (91%). The most common disability diagnoses were intellectual disabilities (26%), multiple disabilities (26%), and multiple categories (26%). Many SETs reported they did have experience with a mentor (78%). Most SETs indicated that they would be interested in a social support group/intervention (43%), or they may be interested (43%). Please see Table 2 for detailed results of demographic information.

Table 2

Quantitative Phase Participant Demographics

Variable	$N = 23$	%
Gender		
Female	18	78
Male	5	22
Race		
Caucasian	23	100
Highest degree		

Bachelor's	1	4
Master's	22	96
Doctoral	0	0
Licensure Path[a]		
Traditional	15	65
Alternative	7	30
Grade setting		
Early Childhood	1	4
Elementary (K-2nd)	1	4
Elementary (3rd-5th)	0	0
Middle School (6th-8th)	5	22
High School (9th-12th)	7	30
Elementary (K-5th)	6	26
All grades (K-12th)	2	9
Other	1	4
Setting		
General education/ inclusion	0	0
Resource	7	30
Self-contained	10	44
Multiple settings	6	26
Residential	0	0
Students on alternate assessment		
Yes	21	91
No	2	9
Student disability diagnoses		
Autism spectrum disorders	3	13
Developmental delay	1	4
Emotional behavioral disturbance	1	4
Deaf blindness	0	0
Intellectual disability	6	26
Multiple disabilities	6	26
Multiple categories	6	26
Experience with a mentor		
Yes	18	78
No	5	22
Interested in social/support group		
Yes	10	43

Maybe	10	43
No	3	13
Willing to participate in interview		
Yes	21	91
No	2	9

[a] = One participant did not answer this question.

Quantitative Results

Research Question 1: What levels and dimensions of burnout are rural special education teachers of students with low incidence disabilities experiencing? What factors are related to burnout in rural special education teachers?

In this section, I share descriptive results of the MBI-ES (Maslach et al., 1986) and the demographic questionnaire collected during the quantitative phase to address Research Question 1. Further, the results of a Pearson product-moment of correlations among age, years teaching, licensure route, number of students on caseload, emotional exhaustion, depersonalization, and personal accomplishment was used to answer this question. The small sample size limits statistical power and should be considered when reviewing results; however, the information is presented to provide a clear picture of how the individuals in this study are experiencing burnout and how the burnout subscales relate to each other and other important participant characteristics.

Descriptive Analysis

Table 3 details how study participants are experiencing burnout according to the three dimensions of burnout measured by the MBI-ES. Participants reported high levels of emotional exhaustion, low levels of depersonalization, and moderate levels of personal accomplishment (see Table 3). A boxplot (see Figure 5) presents a visual distribution of scores for each dimension of burnout.

Table 3

Maslach Burnout Inventory-Educator Survey Results

Dimension	*n*	Level	*M*	*SD*	Min	Max
Emotional Exhaustion	23	High	28.9	10.3	0	46
Depersonalization	23	Low	6.7	4.0	0	20
Personal Accomplishment[a]	23	Moderate	36.1	6.2	23	45

[a] Scored in opposite direction of emotional exhaustion and depersonalization.

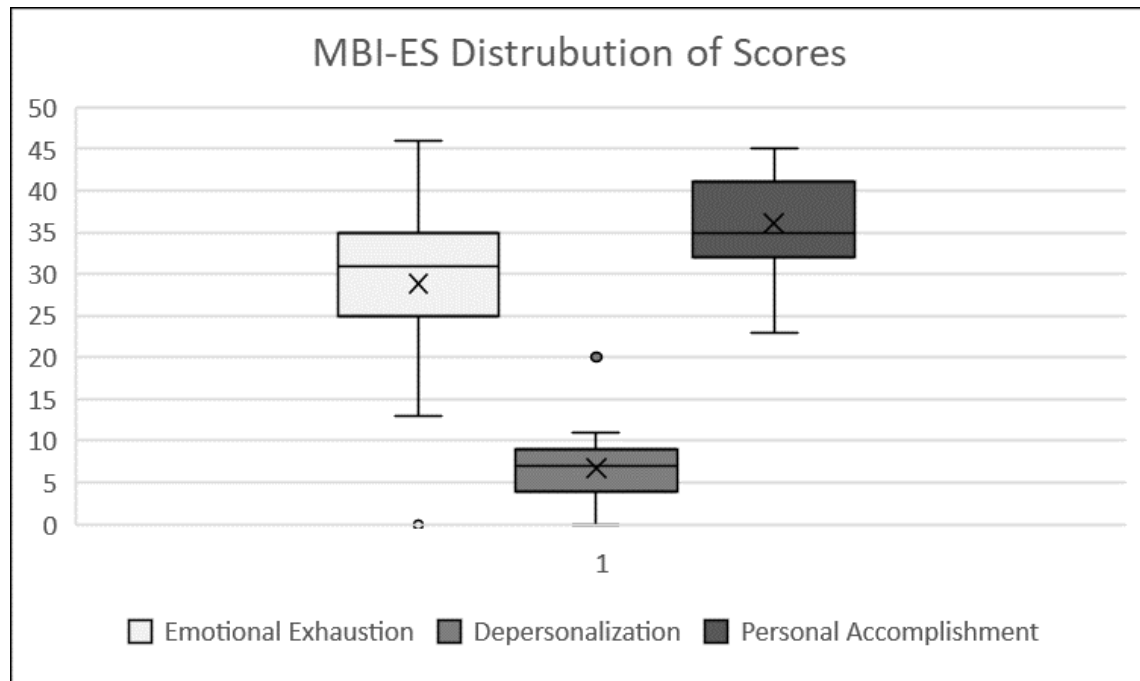**Figure 5**

Boxplot of MBI-ES Scores

Table 4 displays the frequency count of study participants who scored in each burnout dimension. The most frequent levels that participants scored in for each burnout dimension are as follows: most participants scored in the high level for emotional exhaustion ($n = 16$, 69.6%), the low level for depersonalization ($n = 17$, 73.9%), and the moderate level for personal accomplishment ($n = 11$, 47.8%).

Table 4

Participant Maslach Burnout Scores- Levels

Dimension	$n = 23$	High	Moderate	Low
Emotional Exhaustion	23	69.6%	17.4%	13.0%
Depersonalization	23	4.4%	21.7%	73.9%
Personal Accomplishment a	23	17.4%	47.8%	34.8%

[a] Scored in opposite direction of emotional exhaustion and depersonalization.

Table 5 displays frequency counts examining the key variables: emotional exhaustion, depersonalization, personal accomplishment, gender, licensure path, classroom setting, student disability diagnoses, experience with a mentor, and interest in a social/support group. Overall, 91.3% of SETs in this study are experiencing moderate or high levels of burnout in at least one dimension area. Eighty-seven percent of participants are experiencing moderate or high levels of burnout in emotional exhaustion. Twenty six percent of participants are experiencing moderate or high levels of burnout in depersonalization. Sixty one percent of participants are experiencing moderate or high levels of burnout in personal accomplishment. All SETs that had early/childhood or elementary age students on their caseload ($n = 11$) reported high levels of emotional

exhaustion. Additionally, all participants that provided services in multiple settings or resource settings ($n = 13$) reported high levels of emotional exhaustion.

Table 5

Percentage of Teachers with High and Moderate Levels of Burnout

Variable	*n*	Emotional Exhaustion	Depersonalization	Personal Accomplishment
		%	%	%
All Participants	23	86.9	26.0	60.9
Gender	18	94	22	72
Female	5	80	40	20
Male				
Licensure Path				
Traditional	15	93	20	47
Alternative	7	86	43	43
Grade setting				
Early Childhood	1	100	0	100
Elementary (K-5th)	7	100	29	43
Middle School (6th-8th)	5	80	20	60
High School (9th-12th)	7	86	43	57
All grades (K-12th)	2	100	0	100
Other[a]	1	100	0	100
Setting				
Resource	7	100	43	443
Self-contained	10	80	20	70
Multiple settings	6	100	17	67
Student disability diagnoses				
Autism spectrum disorders	3	100	86	100
Developmental delay	1	100	0	100
Emotional behavioral	1	100	100	0
disturbance	6	83	33	17
Intellectual disability	6	83	0	83
Multiple disabilities	6	100	17	67
Multiple categories				
Experience with a mentor				

Yes	18	94	33	61
No	5	90	0	60
Interested in social/support				
group	10	90	30	40
Yes	10	100	30	100
Maybe	3	67	0	0
No				

Note. [a] k-8th.

Inferential Analysis

Table 6 reports the intercorrelations between seven variables (i.e., teacher age, number of years teaching, licensure route, number of students on caseload, emotional exhaustion, depersonalization, and personal accomplishment). All variables were continuous or dummy coded transformations of categorical variables. Inspection of the table revealed two statistically significant correlations. Depersonalization scores decreased as age increased ($r = -.487$, $p < .05$), and higher levels of emotional exhaustion correlated with higher levels of depersonalization ($r = .483$, $p <.01$).

Table 6

Correlation Maslach Burnout Inventory-Educator Survey and Demographic Variables

Variable	1	2	3	4	5	6	7
1. Age	—	.773** [.53, .90]	-.051 [-.45, .37]	-.049 [-.45, .37]	-.370 [-.68, .05]	-.487* [-.75, -.10]	.315 [-.11, .64]
2. Years teaching		—	-.175 [-.55, .26]	.070 [-.35, .47]	-.201 [-.57, .23]	-.290 [-.63, .14]	.314 [-.11, .64]
3. Licensure Route [a]			—	-.006 [-.42, .41]	.310 [-.12, .64]	.301 [-.13, .63]	-.275 [-.62, .15]

	4	5	6	7
4. Number of Students on Caseload	—	*.197* [-.23, .56]	*.171* [-.26, .55]	*.420* [.01, .71]
5. Emotional Exhaustion		—	***.483**** [.89, .75]	*-.190* [-.56, .24]
6. Depersonalization			—	*-.135* [-.52, .29]
7. Personal Accomplishment				—

Note. 95% Confidence interval for each correlation is below correlation coefficient.

ᵃ Licensure route was coded a 0 = traditional and 1= alternative.

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

When reviewing correlation results it seemed surprising that a statistically significant positive correlation existed between emotional exhaustion and depersonalization, given that 70% of participants reported high levels of emotional exhaustion and 74% reported low levels of depersonalization. To ensure this was not a mistake, I conducted further analysis to expand on the results. In addition to double checking coding categories, I viewed a box plot (see Figure 5) and scatterplot (see Figure 6) to demonstrate a visual representation of the correlation. These additional investigations revealed that several scores are scattered around cutoff scores for placement in different levels and that the depersonalization scores are less spread out than the emotional exhaustion scores, partially due to the range of scores. Emotional

exhaustion ranges from 0-46; depersonalization ranges from 0-20. These findings paired

with the small sample size explain some uncertainties associated with this correlation.

Figure 6

Scatterplot of Correlation Between Emotional Exhaustion and Depersonalization
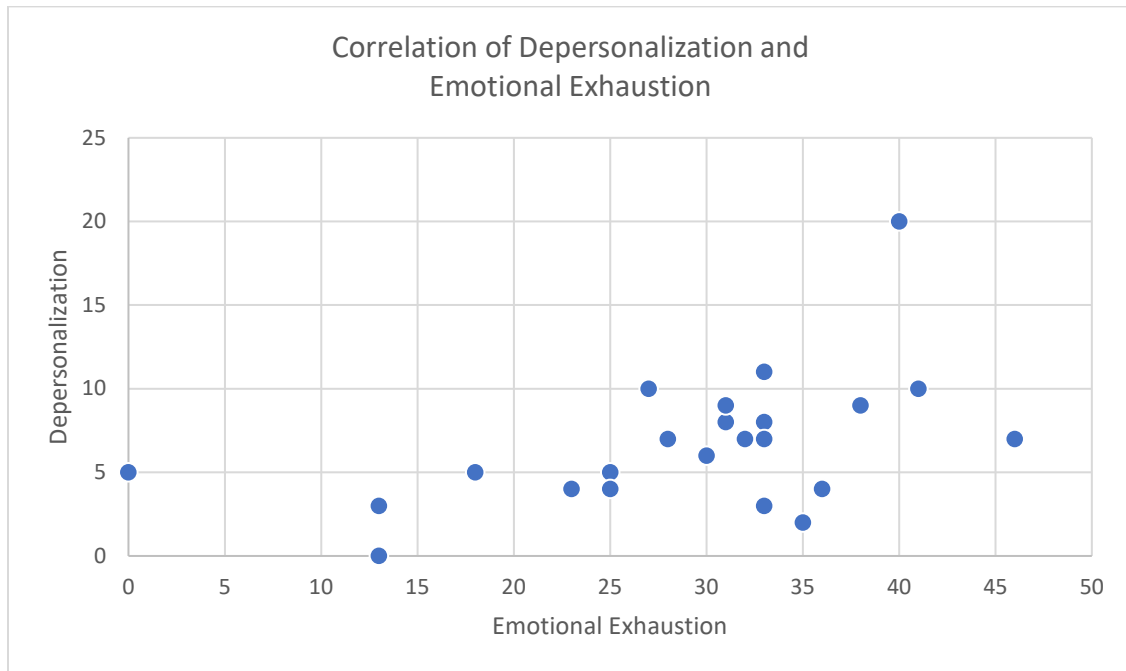
Qualitative Results

Research Question 2: How do rural special education teachers of students with low

incidence disabilities describe their lived experiences with burnout?

I designed the qualitative phase of the study to conduct an in-depth exploration

into how rural special education teachers of students with low incidence disabilities

describe their lived experiences with burnout. I used a phenomenological approach to

explore the experiences of burnout through semi-structured interviews of participants. To

address Research Question 2, I present the results of the semi-structured interviews,

detailing major themes identified through coding interviews.

Sample. Table 7 contains demographic information and burnout levels for each interview participant. The six participants who participated in follow-up interviews were four females (67%) and two males (33%) with 14.17 average years teaching experience. All SETs were Caucasian. All SETs taught in self-contained settings, with two providing services in resource settings as well. Grade levels were equally represented with two participants from each level (i.e., high school, middle school, and elementary school). Disability categories of students were as follows: Intellectual Disabilities ($n = 2$), Multiple Disabilities ($n = 1$), Autism Spectrum Disorder ($n = 1$), and multiple categories ($n = 2$). Four SETs (67%) exhibited high or moderate levels of emotional exhaustion and personal accomplishment. Three SETs (50%) exhibited high or moderate levels of depersonalization.

Table 7

Demographic and Burnout Levels of Interview Participants

Name	Age	Years Teaching	Licensure Route	# of Students	Grade Level	Setting	Student Diagnoses	EE Level	DP Level	PA Level[a]
Bill	55	25	T	8	6-8	SC	ID	Low	Low	Low
Marsha	42	7	T	10	K-3	RR/SC	ID	Moderate	Low	Low
Susie		18	AC	7	9-12	SC	MD	Low	Low	Moderate
Luke	41	11	T	11	6-8	SC	ASD, EBD, OHI	High	Moderate	High
Mia	28	4	AC	10	K-5	SC	ASD	High	High	Moderate

| Addison | 43 | 20 | T | 7 | 9-12 | RR/SC | ASD, ID, MD | High | Moderate | Moderate |

Note. EE= Emotional Exhaustion; DP = Depersonalization; PA= Personal Accomplishment= Traditional; AC= Alternative

Certification; SC=Self-Contained; RR=Resource Room; ID=Intellectual Disability; MD=Multiple Disabilities; ASD= Autism

Spectrum Disorder; EBD= Emotional Behavioral Disorder; OHI= Other Health Impairment.

[a] Scored in the reverse. Low levels of burnout indicate high levels of personal accomplishment.

Identification of Patterns and Themes

I display the progression of the coding process in Figure 7 and discuss it in the following sections. After the categories were developed, I began organizing and arranging those categories in patterns and themes. To begin this process and visualize the categories as themes, I wrote each category on color coded index cards to allow a straightforward way to arrange and rearrange data until the participants' experiences were represented. While engaging in this process, I was conscientious of the fact that I was working with two distinct types of data and needed to honor this portion of data analysis to be representative of both inductive and deductive data. The deductive approach uses provisional coding (emotional exhaustion, depersonalization, and lack of personal accomplishment; Maslach & Jackson, 1981; Miles et al., 2020) to explore and analyze the experiences of participants. The inductive approach analyzes the data in a manner that leads to discovery and explanations, as well as assessing the assumptions and assertions of the lived experiences of burnout in these special education teachers. Several times I had to reorganize and begin the recoding process (Saldaña; class lecture; March 22, 2022). The category coding led to the creation of seven patterns in data burnout dimensions, job demands and expectations, supports, intrapersonal experiences, career path, relationships, and rural (see Figure 7).

Figure 7

*Categories-Patterns-Themes of Qualitative Findings*
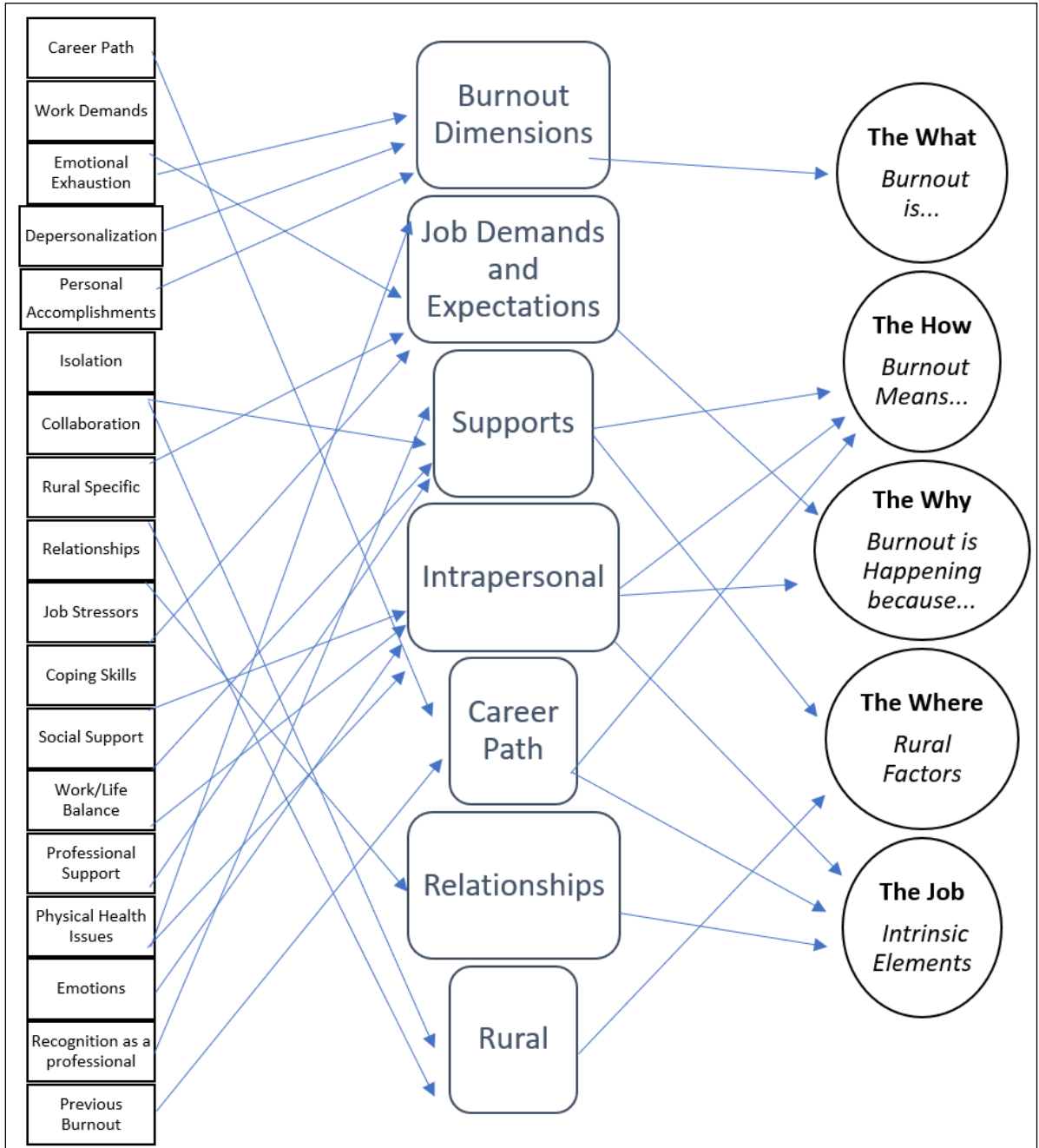
I developed thematic units to frame and organize patterns in a more conceptual

way (see Figure 8). Patterns were reviewed several times along with reviewing memo

notes. Each pattern (and subsequent code) was placed in one of five boxes, "the what,"

"the how," and "the why" of burnout, the rural aspect, and the intrinsic

qualities/characteristics of the job. This conceptualization of data into themes presented

the experiences of burnout in an organized and cohesive manner.

Figure 8

Conceptualization of the Data and Themes
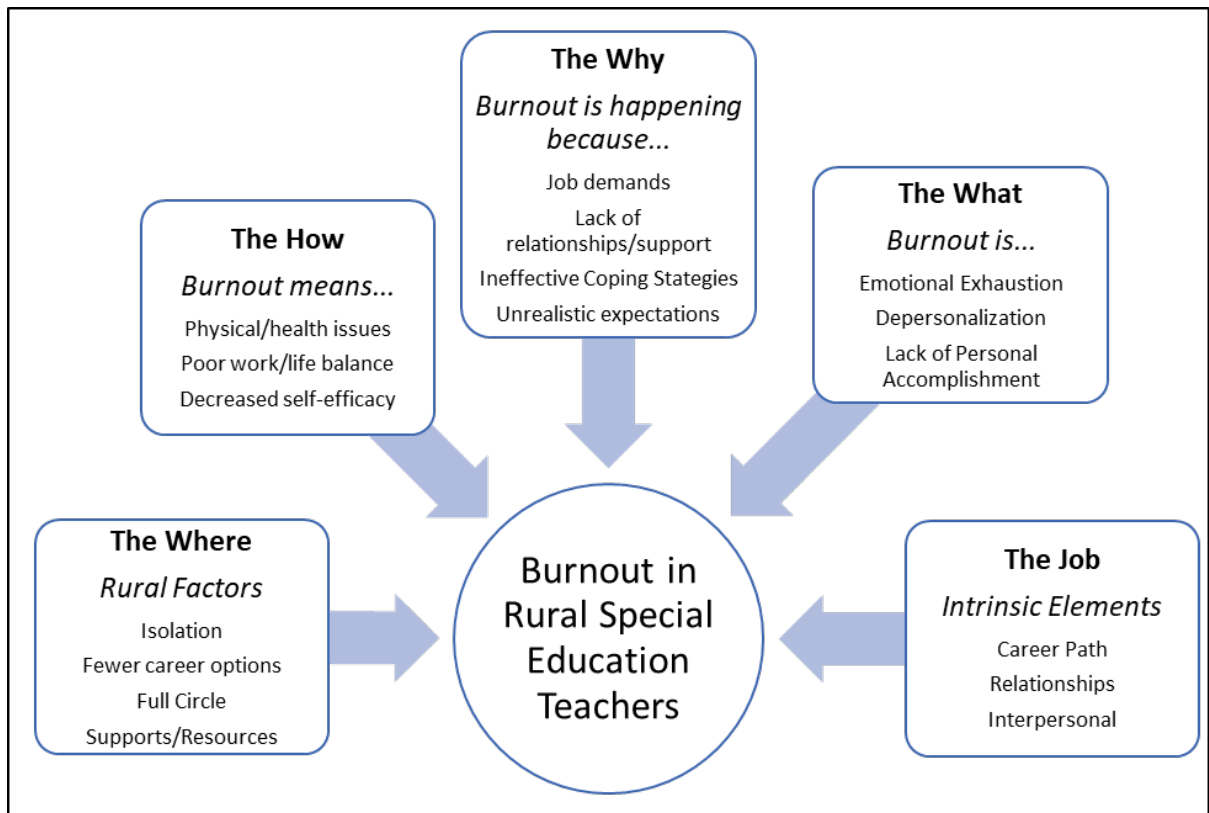
From there I developed a conceptually clustered matrix (Miles et al., 2020, pp.

171-172) to present the information of each participant as it related to the developed

themes (see Table 8). This allowed a visual representation of the thematic units as

experienced by each participant and evidence of data triangulation of themes across

participants. In qualitative research, data triangulation is used to show that at least three

independent measures support findings (Miles et al., 2020). I used data source

triangulation to corroborate findings among participants as evidenced by descriptions of individual themes.

Each theme was corroborated with at least three participants. Aside from the potential outlier already discussed in cycle one coding (eventfully becoming "emotion code") using data triangulation allowed me to discover any outliers among participants or evidence of inconsistency or conflicting findings (Miles et al., 2020). I discovered no major coding or thematic outliers during data analysis that would present conflicting or biased information. Bill does not present any signs of burnout, expect a brief statement on minor feelings of depersonalization; however, this is expected as he was purposefully selected based on his low levels of burnout on the MBI-ES (Maslach et al., 1986). Furthermore, I utilized memoing throughout the data collection and data analysis, providing another means of which I was able to describe the processes I went through to reach the findings (Miles et al., 2020; Saldaña, 2021).

Table 8

Conceptually Clustered Matrix: Themes of Burnout Across Participants

Themes	Luke	Mia	Addison	Susie	Marsha	Bill
Burnout is…						
Emotional exhaustion	X	X	X	X	X	
Depersonalization	X	X	X			X
Lack of personal accomplishments	X	X	X	X		
Burnout means…						
Physical/health issues		X	X	X		
Decreased energy for work/life	X	X	X	X	X	
Poor work/life balance		X	X			
Decreased self-efficacy	X	X	X	X		
Burnout is happening because…						
Isolation	X	X			X	
Work demands	X	X	X			
Support (lack of)	X	X		X		
Relationships (lack of)		X	X			
Different expectations	X	X	X			
Coping skills (lack of)		X	X			
Unrealistic expectations	X	X		X		
Previous self-identified burnout	X		X	X	X	
Rura Factors						
Isolation	X	X			X	
Fewer resources	X	X		X		
Everyone is intertwined	X		X	X	X	X
Fewer career options	X	X		X		X
The intrinsic elements						
Love and passion for students/job		X	X	X	X	

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Thoughts of quitting/changing careers	X	X	X	X	X
Guilt	X	X	X	X	X
Job choice regret	X	X			
Break from teaching special education	X			X	
Plans to leave career	X	X			

Phenomenological inquiry (i.e., examining and representing experiences shared by several participants on the same phenomenon) aims to provide rich detail in how participants describe their experience with burnout. In the next section I present evidence from the interviews that details how these participants are experiencing burnout by providing specific examples and participant quotes obtained during interviews. I use these to explain and evidence each theme.

Theme 1: The What? Burnout is…

All participants expressed experiencing signs of burnout in at least one dimension (i.e., emotional exhaustion, depersonalization, or personal accomplishment). Emotional exhaustion was the most prevalent and experienced in five participants (Luke, Mia, Addison, Susie, and Marsha). Participants expressed that high needs throughout the day (e.g., not being able to "shut off the mind,") constantly going, and unrealistic job demands contributed to feelings of emotional exhaustion.

Mia expressed that "several days **I leave crying** and have to step out in the hallway to compose myself, the days just run together." Her comment was supported by Addison who said, "When you're working with students with higher needs it just makes for more emotional exhaustion. **Work is draining, it's heavy**."

Luke further corroborated this theme adding that,

Work is overwhelming and being pulled in a lot of different ways, a lot of different expectations, not a whole lot of communication or continued instruction on how the district wants the IEPs. Just overwhelmed with the paperwork and expectation. I'm **exhausted from my job**; I'm exhausted because of the high needs all day long. It will exhaust you and sometimes frustrate you.

Susie expressed that she feels emotionally exhausted but also tries to be aware of these feelings. She further expressed that she has learned to recognize this feeling and make changes before it gets bad stating, "**I was staying until 6:00 or 7:00, and coming in on weekends**, and I have to tell myself to stop. You are not going to be any good to them if you are completely exhausted by Labor Day." Marsha shared a similar experience with emotional exhaustion, "**I feel like that often** [*emotional exhaustion*], and more so in the past, but I try to be aware of feeling that way and getting overwhelmed and just try to take a step back."

Feelings of depersonalization were expressed by four of the six participants (Luke, Mia, Addison, and Bill). Participants describe feelings of depersonalization due to high needs of students, job demands, unrealistic expectations, sole responsibility of students, and feelings of exhaustion. Mia stated, "There are so many behaviors and high needs this year. One student bites and hits all the time, sometimes, **I just let her do it**. It's like self-preservation or survival mode." Addison further corroborated this feeling of survival, by stating, "**There is only so much we can do**. If I think about how I feel about [depersonalization] it just breaks my heart." Luke shared a similar sentiment, **"What's the point**? They are just going to push me, and I get frustrated trying to find ways to keep them motivated." Luke also shared the following sentiment regarding depersonalization,

"Yes, I think yes everybody [all SETs] does. They'd be lying if they said they did not have days they feel that way." Bill echoed this sentiment as well, "**I feel that way**. When you're getting hit, some on spits in your face, sure." Bill also added that when this happens, he "goes home, works out, sleeps it off, comes back and it's a new slate."

Personal accomplishment [lack of] was experienced by four of the six participants (Luke, Mia, Addison, and Susie). Participants expressed concerns that the high needs of the students, the diverse caseloads, lack of support, and unrealistic expectations and job demands contributed to low feelings of personal accomplishment.

Luke expressed that he does not feel accomplished often, and that "many days I feel like I've just spun my wheels all day. I've taken, you know, **two steps forward and three steps back**." Mia corroborated similar feelings, "A lot of days I feel like **I have not accomplished anything throughout the day**. I feel like the days just run into each other." Addison expressed similar feelings in that "working with higher needs, you're just not seeing success often and when I do, they are not on the magnitude I would like them to be." Addison further added that the last time she **felt personal accomplishment was at the beginning of the year** [four months prior to interview]. Susie expressed similar sentiments, stating that "**Yes, I feel that way. Not feeling accomplished at work**. I had to find ways to feel the gap, and realize work is not the only place I can feel accomplished."

Signs of each dimension of burnout were affirmed and corroborated across participants and dimensions.

Theme 2: The How? Burnout Means…

This theme represents how burnout is affecting the participants. Five of the six (Luke, Mia, Addison, Susie, and Marsha) expressed concern with how the feelings of burnout are impacting their lives, both personally and professionally. Common sentiments included having physical/health issues, decreased energy, fatigue, lack of self-efficacy in their work and home life, and a poor work/life balance. Addison stated that, "I was **on medicine for a long time** to deal with the stress of work. I went off of it [medicine] for a short time this year but had to go back on it." Mia further elaborated "My **left eye has** twitched the entire year. I get **headaches.** I have **fibromyalgia** and I've had so many flare-ups the last couple years because of the stress. Susie stated in the past she felt this way all the time, "It took burning out to realize I needed to do things for me." **I wasn't sleeping, I had headaches**. This year is very busy, I wanted to go home and just sit on the couch. I had to learn to take time for me."

Additionally, several participants expressed guilt, especially in the difficulties of maintaining a work/life balance. Mia expressed concern about guilt and failure as a parent because she is so exhausted and overwhelmed that when she gets home, she feels she is "**not meeting her own son's needs**". Luke supported this theme by stating that at the beginning of the year, he was **going home exhausted and overwhelmed** and his wife commented that he has never brought work home so much. Luke later expressed **sentiments of guilt**, "I am trying to build relationships with my students, many don't have a dad or good father. Trying to build relationships, but it is tiring." Addison expressed guilt regarding parenting and being a teacher, "Work has always been draining. I have a 15-year-old and a 12-year-old, and I can't remember some things from when they were little. **I regret missing out on moments with my children**."

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Theme 3: The Why? Burnout is Happening Because…

This theme is representative of how the participants describe contributing factors of burnout. Five of the six participants (Luke, Mia, Addison, Susie, and Marsha) provided information that the job demands are a large contributing factor, including: the amount of paperwork, the behaviors of students, isolation, feelings of being solely responsible for the students' successes, unrealistic job demands/expectations, feelings of previous burnout, lack of professional support, and lack of effective coping skills.

Lack of professional support and feeling the sole responsibility of students was a common sentiment among all participants. Support included that from administration, colleagues, and/or district personnel. Isolation was related to professional support and sole responsibility of students.

Mia expressed concern in areas of support across the school and district. Stating that "The principal we have now, it's almost like he is **scared of our kids**, and it breaks my heart." *Marsha* shared similar sentiments in that "working with **MSD is isolating**. In my past position it was so defeating, **no one was supporting us**."

Luke supported this claim, expressing struggles he faces when planning inclusion/collaboration time for his students,

> I know a lot of the general education teachers, and an unfortunate thing about my position is a lot of times when they see me coming they're expecting me to say, 'Hey, I've got a guy we want to try in your class,' and **I can see the dread in their eyes**. Working through things like that alone are exhausting and frustrating.

Participants also shared similar experiences in which unrealistic and ambiguous job demands were contributing to their feelings of burnout. Luke shared that "it is just

overwhelming, and **being pulled in a lot of different ways**, a lot of different

expectations, not a whole lot of communication."

Mia explained that,

You just have to put more thought in things than you do for general education,

because you have **so many different kids with different needs,** and you're

having to differentiate things and make sure everything is individualized.

Marsha further explained the diversity of the classroom, "I have a girl with a g-

tube and [students with] behaviors, **as long as we all make it out safely, that's what I**

care about."

Susie expressed that in her past position,

I was so overwhelmed, exhausted and burnout out. I was having a hard time

dealing with all the paperwork and demands. I was actually put on a **corrective**

action plan. It was the **best thing to happen** to me. I learned a lot and got

support I needed.

Theme 4: Rural Circumstances

This theme is representative of the how rural specific circumstances affect

feelings of burnout. Fewer resources and professional isolation were prevalent within the

school system and community, as well as a lack of job opportunities. While a common

expression among all six participants was the interconnectedness of rural communities,

that also was both viewed as both a pro and con by all participants. Relationships were a

common theme found across all participants. Most participants stated that they had strong

relationships within the school and community, but it was the lack of professional

relationships contributing to feelings of burnout.

Addison, discussed relationships as, "The **relationships are the most important**, relationships with your team members, it all comes down to support because that is what will help get you through." Mia expressed, "I have a relationship with co-teacher [another MSD teacher]. We're the only two people that understand what the other is going through." Luke similarly shared, "I have good relationships with other teachers and administrators [personally] **but only collaborate with them if they're able to stop by my room** to chat."

Lack of career options and job opportunities in rural communities appeared in all participant interviews, with participants expressing obtaining special education certification to get their foot in the door or changing districts due to lack of mobility in career.

Mia shared, "My initial degree is in K-5 education, but **the school I really wanted** to be in did not have any opening except MSD."

Bill shared a similar experience,

My degree was in physical education. I knew it was going to be **difficult to get a job in physical education**. Someone advised me to go back and get a degree in special education, **so I got a degree** in elementary education and **special education**.

Addison shared, "I got my director's certificate and they decided to hire someone that worked at the state department. And since **there was no chance of moving up there, I left**".

Luke further evidenced the experience of job searching in rural communities by sharing, **There are a lack of options you see when growing up** [in a rural

community]. You can work in a factory, become a teacher, own a business, or

become a doctor. That was really the only options we have. Not a lot of industry

or job opportunities.

Theme 5: The Job… The Intrinsic Feelings

This theme is representative of the intrinsic feelings and emotions of being a

special education teacher. Love, passion, and a "job calling" came up in four interviews

(Mia, Addison, Susie, and Marsha). Participants often associated feelings of guilt as well,

due to thoughts or plans to leave the profession.

Addison expressed,

It is a **calling**- you may love the kids but there is so much more that comes with

that." She then went on to say, "I would love a support role and am looking. When

I am eligible for retirement, I will retire. It is a **lot of work to balance** this job and

life."

Marsha shared similar thoughts,

I've always been **passionate** about my career. But I mean it is more than that it is

a calling. I want to stay in special education, but maybe not in teaching. Maybe a

non-profit or go back and get my Ed. **to teach college classes**.

Susie and Addison want to stay in special education but in support roles, not in

teaching positions. Whereas Luke and Mia are both actively looking to change to

different positions out of special education. *Mia* shared, "**I love these kids**. I love this

job." When asked about future career plans:

Mia shared,

I wish I would have known how hard this was going to be. I was shocked. I have

actually talked to my principal already because physically, **I don't know that I**

can do this job any longer. I have my general education certificate, so I am

hoping to get a job starting next year.

Luke shared similar experiences,

I'm looking at leadership options, I can also teach 5th-12th social studies as a

back-up. If I don't get anything, I guess I will stay where I am, for as long as I

can.

Phase III: Integration Results

Research Question 3: In what ways do the lived experiences of burnout among

participants explain the levels and dimensions of burnout reported by quantitative

measures?

The third phase was designed to integrate data obtained and analyzed from both

the quantitative and qualitative phases to gain a deeper understanding of the issue under

analysis (i.e., rural SET burnout) (Creswell, 2013). Results of this phase address

Research Question 3. To detail the results of integration, I created a joint display (see

Table 9). During data analysis clear distinctions emerged that aligned with respective

dimensions and levels. Results are presented in the joint display by aligning each level

and dimension of burnout with major qualitative findings, exemplar quotes, and mixed

methods inferences.

A major component of integrating data is to determine the "fit" of data, allowing

researchers to provide the coherence of integrated data. Data fit can fall into one of three

categories: confirmation, expansion, or discordance (Fetters et al., 2013). Integrating data

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allowed me to expand information on each dimension of burnout. By using the

quantitative data to guide the selection of interview participants, I expanded on

quantitative results and discovered information that would not have been possible using

just one set of data. Each dimension of burnout was expanded based on the qualitative

data, allowing for representation of how burnout is experienced by participants across

levels. The results of data integration for each dimension are presented as follows.

Table 9

Joint Display of Quantitative Survey Data and Qualitative Interview Data

Maslach Burnout Inventory Dimensions and Levels	Participants	Qualitative Findings	Exemplar Quotes	Mixed Methods Inference
Emotional Exhaustion				*Expansion*
High Level	Luke, Mia, Addison	Fatigue and exhaustion that impacts personal and professionally lives, health/physical issues, regret, and guilt	"Several days I just leave crying. My eye has been constantly twitching, I have headaches, I've had several flare-ups of fibromyalgia due to stress in the past couple years." (Mia)	Moderate level participant and one low participant had experience with burnout previously. Both switched positions, and one was put on corrective action plan. Both expressed the need and importance to recognize the signs and make changes to limit burnout.
Moderate Level	Marsha	Experiences feelings of emotional exhaustion, however, recognize the signs and symptoms and make changes before it escalates due to previous experience with being very burnt out, and have learned set boundaries.	"I definitely experience that, it's exhausting. But I have learned that when I start to feel like that, I need to take a step back, and realize things can wait to get done. Realizing it is not a sign of weakness but maturity." (Marsha)	High level participants expressed exhaustion, lack of professional support, absence of lunch and planning time. [a] Two of the three expressed lack of effective coping skills and work/life balance. [b]
Low Level	Bill, Susie	Both participants express low or no feelings of emotional exhaustion. One expressed previous burnout and has learned to set boundaries to avoid those feelings.	"I've never felt that way a day in my life." (Bill)	
Depersonalization				*Expansion*
High Level	Mia	All participants mention various feelings of depersonalization,	"Yes, there are major behaviors in class. One is self-injurious with hitting and biting, and I	Three of the participants scored moderate or high in this area.

Level	Participants	Description	Quote	Notes
		specifically when discussing student behaviors and how all-consuming they can be.	feel bad saying this but, sometimes I'm just like let her do it." (Mia)	These participants also scored high in one of the other dimensions.
Moderate Level	Luke, Addison	Participants presented feelings of defeat and expressed experiencing regular feelings of accomplishment.	"What's the point? They are just going to push me, and I get frustrated trying to find ways to keep them motivated." (Luke)	This is not an area SETs seem to care to speak about. Reassurance of confidentiality and a reminder was needed.
Low Level	Bill, Marsha, Susie	Two participants mentioned in the past this was a feeling they experienced, but that they do not anymore.	"Not really because of my small caseload, but it would be easy to feel that way with a higher caseload and not enough support." (Marsha)	Low-scoring participants still expressed depersonalization and recognized how it would be easy to feel this way.

Personal Accomplishment

Level	Participants	Description	Quote	*Expansion*
High Level	Luke	Not able to recognize small accomplishments anymore, no feelings of accomplishment since the beginning of school. Felt isolation in educating students.	"There are many days that I feel like all I've done is just spun my wheels all day. I've taken two steps forward and three steps back." (Luke)	Moderate level participants did experience lack of accomplishments, they were also able to acknowledge that lack of accomplishments was not just a reflection of themselves, but systematic issues can contribute.
Moderate Level	Addison, Mia, Susie	These participants were aware that it was not a lack of personal accomplishment on their part per say but overcoming the barriers and challenges to be successful.	"Honestly, I do feel lack of accomplishments, but I learned to recognize that work is not the only way to feel accomplished." (Susie)	Relationships were a factor in all participants; however, relationships and support are not the same. While everyone mentioned having good relationships with administration (expect Mia), only the low-level participants mentioned administration being helpful or supportive.
Low Level	Bill, Marsha	Recognized small accomplishments, daily successes. Participants did not seem to dwell on the things they cannot change and expressed the	"The most important thing to me is the relationships with the students. If they are happy to come to school and they don't miss a lot, then I feel accomplished." (Bill)	

importance of being able to
prioritize job demands.

[a] Addison recently transferred to a school that does have a built-in lunch/planning for her, however, for 19 years she did not receive this. [b] Luke

expressed stronger feelings of burnout in his previous position, and is trying to implement changes now, but he is preparing for a transfer out of special

education.

Emotional Exhaustion

Experiences with emotional exhaustion were evident in five participants. The use of qualitative data helped to expand on quantitative data, allowing for discovery of a more in-depth exploration of burnout. I also used data integration to examine distinctions between levels and how participants in each level are experiencing burnout.

High level participants were experiencing consistent feelings of fatigue and exhaustion that has impacted their personal and professional lives. There was a small discrepancy in coping skills, as two participants (Mia and Addison) expressed poor coping skills. Luke said he has effective coping skills and outside social support but still feels overwhelmed and exhausted. A lack of professional support was apparent among all participants. While Addison and Luke expressed a positive relationship with administration, they indicated receiving no professional support. Mia expressed a lack of relationship and support from administration and professionals. Furthermore, results across high level participants indicate a lack of recognition as a professional. Luke and Mia do not get a planning period or a duty-free lunch, and they begin supervising students before the actual start of the school day. Comparatively, Addison recently switched positions and now has a planning period and duty-free lunch; however, for 19 years she did not. In reviewing data integration, it is apparent that all three participants in this level are actively looking for other positions.

While Susie quantitatively scored in the low level, her qualitative findings closely aligned with Marsha, who scored in the moderate level. While both participants experience feelings of emotional exhaustion often, they have evidenced ways they try to deal with these feelings. Both participants identified previous experiences with burnout as

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the reason they have learned ways to manage feelings of emotional exhaustion. Both shared similar sentiments (e.g., that it took them "burning out so bad") to realize they had to make changes. Both participants shared that a support system (both in and outside of school), effective coping strategies, and the ability to recognize feelings of exhaustion help them to be aware of the need for balance and implement strategies to regain balance.

One participant, Bill, scored low in emotional exhaustion in both quantitative and qualitative data. His qualitative results expanded his quantitative results. Bill expressed that he attributes his positive attitude, physically active lifestyle, need for routine, and the ability to let "things role of his back" as reasons he does not have feelings of emotional exhaustion.

Depersonalization

Varying experiences of depersonalization were evident across participants. Data integration revealed that qualitative data expanded the quantitative data and allowed for analysis across participants and levels. Across all levels and participants, a common sentiment shared was the uncomfortableness and hesitancy of discussing feelings of depersonalization towards their students. All participants needed reassurance of confidentiality. To further encourage a level of comfort in discussing depersonalization, I reminded participants that I was a previous SET that suffered from the symptoms of the burnout, and that I understood and was not there to judge.

While discordance was not prevalent in any dimension, depersonalization did have some cross over findings when integrating data. Bill scored low in depersonalization, however, did express some signs of depersonalization during the interview. He clarified that when he does feel this way, he implements coping strategies

to decrease these feelings. Mia scored in the high level and she attributes these feelings towards her constant exhaustion, extreme behaviors of her students, and the lack of help/support in dealing with the job demands with unrealistic expectations.

The moderate level participants shared similar sentiments regarding depersonalization. Both participants expressed feelings of defeat, and a "what's the point" attitude. Both Luke and Addison scored high levels of emotional exhaustion, and expressed similar sentiments with Mia, in that exhaustion, job demands, and the high needs of students contributed to these feelings of depersonalization.

Personal Accomplishment

Personal accomplishment was experienced in varying degrees across all participants. Data integration revealed that qualitative data expanded on quantitative results, allowing for analysis across levels and participants. One participant fell in the high level (Luke), three participants fell in the moderate level (Addison, Mia, and Susie), and two fell in the low level (Bill and Marsha).

High level participants expressed a lack of personal accomplishment due to unrealistic job demands/expectations, sole responsibility of students, and lack of professional support. Moderate level participants all expressed a similar sentiment in that accomplishment was not just a personal endeavor. They indicated systematic issues or issues beyond their control that contribute to a lack of feeling accomplished. In other words, they did not take sole responsibility for their students' success or failures. Participants in this level do contribute lack of time, resources, support, and unrealistic job demands as contributing factors. Low level participants expressed the need to recognize the small accomplishments and focused on the relationships with students as indictors of

accomplishment. Both low level participants also discussed the consistency of their classroom and efficacy they feel in their jobs.

Summary

In Chapter 3 I presented the results of the quantitative, qualitative, and integration phases of this study. First, demographic, descriptive, and inferential analysis of survey and demographic questionnaire results provided quantitative data detailing the levels and dimensions of burnout participants are experiencing. Second, results of the thematic analysis of semi-structured interviews detailed how participants are experiencing burnout. Finally, a joint display presented results of integrating data to show how the qualitative data further expanded on quantitative results. In Chapter 4 I will present discussion of the results, limitations, and implications of this study.

CHAPTER FOUR

DISCUSSION

Using an explanatory sequential mixed methods design, I investigated the phenomenon of burnout in rural SETs of students with low incidence disabilities. The purpose of this study was to (a) provide an overview of how rural SETs of students with low incidence disabilities are experiencing burnout according to quantitative measures; (b) identify demographic factors related to levels of burnout; (c) understand how the phenomena of how burnout is affecting rural SETs of students with low incidence disabilities through qualitative interviews; and (d) integrate data to gain an in-depth analysis of burnout in rural SETs of students with low incidence disabilities. In this final chapter I present major findings of the study and how they extend to current literature. Theoretical, practical, and future implications also are discussed. Next, limitations of the study will be presented. Finally, the chapter will conclude with a summary of the study.

Burnout Levels and Contributing Factors in Rural SETs

In the current study I addressed a gap in literature by examining burnout in rural SETs of students with low incidence disabilities (Garwood et al., 2018; Jameson et al., 2019; Ruble et al., 2023a). Results of administration of the MBI-ES (Maslach et al., 1986) to gain a numeric measure of burnout extend prior research indicating similar levels and dimensions of burnout in rural SETs. Findings from the current study indicate SETs of students with low incidence disabilities from ten rural counties are experiencing burnout with 70% ($n = 16$) reporting high levels of burnout in at least one dimension,

22% (*n* = 5) reporting moderate levels of burnout in at least one dimension, and 8% (*n* = 2) reporting low levels of burnout in all dimensions. Overall, rural SETs of students with low incidence disabilities are experiencing high levels of emotional exhaustion (*M* = 28.9, *SD* = 10.3), low levels of depersonalization (*M* = 6.7, *SD* = 4.0), and moderate levels of personal accomplishment (*M* = 36.1, *SD* = 6.2). These results are similar with those reported by Garwood and colleagues (2018). Garwood and colleagues reported moderate levels of emotional exhaustion (*M* = 25.63; *SD* = 12.70), low levels of depersonalization (*M* = 5.89, *SD* = 5.89), and high levels of personal accomplishment (*M* = 37.20, *SD* = 7.87). As a reminder, the personal accomplishment dimension is reverse scored, with higher scores representing high levels of personal accomplishment therefore, low levels of burnout (Maslach et al., 1986). I discuss each dimension of burnout below.

Emotional exhaustion. Results of the current study indicate that rural SETs of students with low incidence populations are experiencing high levels of burnout in this dimension. While Garwood and colleagues (2018) reported slightly lower scores, the reported scores place participants of that study in the moderate level of burnout. Three possible conclusions can be drawn from this. First, participants of both studies are exhibiting emotional exhaustion, albeit at different levels. This supports the findings that rural SETs are exhibiting burnout in the form of emotional exhaustion. Second, study participants were different in each study. Garwood and colleagues (2018) focused on SETs with no identification or separation of high and low incidence disabilities, whereas the current study focused only on SETs of students with low incidence disabilities. Third, Garwood and colleagues (2018) conducted and reported their study pre-COVID. For comparison purposes, in a study conducted on SETs post-COVID, SETs scored higher in

emotional exhaustion ($M = 32$; SD and range were not reported; Cormier et al., 2021). While Cormier at al. did not focus on SETs of geographically rural areas, it does provide telling information that the COVID pandemic may be a contributing factor to higher burnout scores in emotional exhaustion of SETs.

Quantitative results of this study reveal that one factor was correlated with emotional exhaustion. A positive correlation existed between emotional exhaustion scores and depersonalization scores. This finding also demonstrates that number of years teaching, licensure route, and number of students on a caseload were not strongly correlated with scores of emotional exhaustion. Categories identified during qualitative analysis revealed factors support current literature. Participants attribute unrealistic job demands/expectations, consistent high needs of students throughout the day, the feeling of "constantly going," isolation, lack of professional support, and sole responsibility of students to high feelings of emotional exhaustion (Brunsting et al., 2014; Garwood et al., 2018; Ruble et al., 2023a).

Depersonalization. Results of this study were comparable to Garwood and colleagues (2018) with both studies reporting low levels of depersonalization, such as detachment from students, negativism, and cynicism (Maslach & Jackson, 1981). During interviews with study participants, it became apparent that feelings of depersonalization towards students was an uncomfortable topic for participants to discuss and many did not really care to address or go into much detail. Participants expressed feelings of depersonalization as feeling of survival and self-protection. Similarly, Garwood and colleagues (2018) reported that of the 39 participants that were willing to participate in follow-up interviews, none had scored in high levels of depersonalization; concluding

this seemed likely that people experiencing depersonalization did not want to participant in the second phase of the study (i.e., focus interviews). Further research to explore feelings of depersonalization could provide insight into how this dimension is experienced and what contributes to the consistently low scores in this area.

Quantitative results of this study reveal that a negative correlation was found between teachers' age and depersonalization. Patterns identified through qualitative analysis reveal that participants identify unrealistic expectations, high needs of students, job demands, sole responsibility of students, and emotional exhaustion as contributing factors to feelings of depersonalization.

Personal accomplishment. Results of this study revealed a moderate level of personal accomplishment. Garwood and colleagues reported slightly higher levels of personal accomplishment (indicating low levels of burnout in this dimension). As presented with emotional exhaustion, two factors should be considered (a) the study samples are slightly different and (b) this study was conducted post-COVID.

Quantitative results did not reveal a correlation between personal accomplishment and demographic factors of interest. These findings add to current literature reporting participants attributed unrealistic expectations, high job demands, lack of resources, lack of professional support, lack of relevant professional development, and the high and unique needs of each student to feeling a lack of personal accomplishment (Berry et al., 2011; Brunsting et al., 2014; Garwood et al., 2018; Ruble et al., 2023a).

Current literature is limited in examining burnout in rural SETs. This study extends the knowledge known of burnout in rural SETs and provides more clarity into how rural SETs of students with low incidence disabilities are experiencing burnout, a

population of teachers that has not been studied independently of other rural SETs while gaining a quantitative measure of burnout. In summation, this study extends the current literature evaluating burnout in rural SETs.

Integration Findings of Burnout

By integrating the quantitative and qualitative results, findings were discovered that would not have been possible without both phases. First, integration allowed for an analysis of how each level experiences burnout independently of the other levels. Second, integration allowed for a cross-analysis of dimensions. I discuss major findings of data integration in the following sections.

Lack of Professional Recognition

A major finding of this study are commonalities and differences reported in participants in the high and moderate levels of burnout. Specifically, SETs reporting scores in the high levels experience a lack in professional recognition, meaning they did not receive resources/supports that other teachers in the building do. SETs reporting high levels do not receive a planning period or a duty-free lunch, and they begin supervising students upon arrival. While Addison, a high level participant, recently obtained a position that does provide her with a duty-free lunch and planning, this was not the norm. For 19 years, she stated she never had a lunch or planning and was shocked to have one at her new school. In comparison, moderate level participants and the low participant had regular lunch and planning periods. Furthermore, these lunch and planning periods were built into the master schedule at their school, meaning it was not up to the SETs to figure out when or if they would receive coverage at these times. Teachers that felt respected, appreciated, and treated equally within the school and treated as professionals appeared

to have lower levels of burnout. These findings support current research that has shown that SETs are more likely to experience burnout when their working conditions are inadequate and their demands outweigh their resources (Bettini et al., 2020, Stark et al., 2022). Future research exploring the lack of professional equality in schools could prove beneficial to understanding the impact these factors have on burnout in rural SETs.

Professional Support and Rural Community Relationships

Relationships were expressed as one of the most important components of participants' jobs, especially in the geographically rural areas where there are close-knit communities. Once clean data were imported into ATLAS.ti a word cloud was created indicating "relationship" was the most represented word in the qualitative interviews. When I asked participants about pros and cons of being in rural areas, all participants expressed that everything and everyone was "full circle" and "everybody knows everybody." While this made for strong personal relationships among participants and their students, colleagues, administrators, and community members there was disconnect between relationships and professional support. Several studies have reported the need for professional support to feel accomplished (Bettini et al., 2017; Brunsting et al., 2014; Conley & You, 2017; Garwood et al., 2018). Mia was the only participant who indicated that she not only lacks support from her administration but also lacks a relationship with them. Future research examining the disconnect between relationships and professional support of SETs and their colleagues/administration in rural areas could provide beneficial information.

Interpersonal Factors

Two interpersonal attributes were distinctly noted among burnout levels: (a) guilt and (b) coping skills. Guilt was an emotion rampantly expressed in high level participants. Furthermore, guilt was expressed in two areas, personal and professional. Professional guilt was experienced in feelings of failure to deliver the needed education and services to students, guilt of feelings of "just surviving," guilt over not meeting the students' needs, and guilt over having a desire to leave the field. Personal guilt was experienced in SETs' feelings of guilt over a lack of balance with work/home life, missing family moments, and being too exhausted to meet the needs of their own children. Interestingly, both moderate level participants shared remarkably similar sentiments regarding feelings of guilt. Both expressed how guilt used to be a major feeling of theirs during their experience with "horrible burnout." However, it was eventually getting to that point and realizing the guilt of missing family and personal time that made them take a step back and prioritize a healthy work/life balance. Currently, guilt is not a sentiment they feel, and they attribute this to their prior experiences with burnout and learning to implement effective practices, especially setting priorities to ensure a better work/life balance. Similarly, while there was only one low level participant, guilt did not appear in his interview. Future research evaluating the progression of burnout and the use of strategies to prioritize a work/life balance would provide information to the field. Furthermore, examining experiences and feelings of guilt and the impact on burnout could prove beneficial to the field.

Coping skills were another interpersonal factor that was different across levels of burnout in participants. Two high level participants stated that while they try to implement effective coping strategies, they do not have any. One high level participant

expressed that he has several effective coping strategies, such as exercise, faith, and uninterrupted time (i.e., away from school) with family. However, he also expressed that he recently left a position where his burnout was more extreme than now. He is actively trying to make changes; however, he is also currently looking to obtain a position outside of special education. Individuals that scored in the moderate and low ranges expressed effective coping skills/strategies they have in place that help them ensure a balance between work and life. Among these were consistent exercise, outside professional support, uninterrupted and dedicated personal time, and implementing and maintaining strategies to promote a positive work/life balance. They also indicated that this was something they had to learn to do, and that it is not always easy, but necessary. While the research on interpersonal factors and burnout in rural SETs is limited, Ruble and colleagues (2023a) did evaluate coping skills and found that SETs that reported higher scores in coping self-efficacy reported lower burnout scores (emotional exhaustion ($r = -.33$, $p < .05$; depersonalization ($r = -.49$, $p < .01$; personal accomplishment ($r = .52$, $p < .01$). Future research evaluating coping skills, including coping skills interventions and effects on burnout in rural SETs, could provide a deeper understanding of the phenomena of burnout to the field.

Limitations

While there are several notable and positive attributes of this study, there also are several limitations worth considering. First, the low sample size ($n = 23$) reduces statistical power and prevents generalizability to a larger population of rural SETs. Furthermore, six SETs participated in follow-up interviews. While this provided an in-depth exploration of the phenomena of burnout in this population, it was not entirely

representative of the sample. To ensure a thorough analysis of interview data, participants were selected from each level of burnout. However, 70% of participants fell in a high level of burnout on at least one dimension. Future qualitative research examining more participants in a high level, could support findings and provide additional insight.

A second limitation is the potential of researcher bias, due to the study's nature and my involvement in the design, data collection and analysis data, preparation of the written report, and my firsthand experiences with phenomena of interest. Steps were taken to ensure researcher bias was not imposed on study phases. Bracketing of the researcher was implemented to actively set aside my subjective experiences to allow a "fresh perspective toward the phenomenon under examination and using peer debriefing strategies" (Creswell & Poth, 2018 p. 78; Moustaka, 1994). Peer debriefing and ATLAS.ti were used to ensure the results of data analysis were representative of the participants. Moreover, the researcher was cognizant throughout the study to remove any bias and focus solely on the participants' experiences. As this study was explored through a pragmatic and constructive worldview, the experiences of the researcher provided insight into the phenomenon aided in data analysis. However, even though all the necessary precautions were implemented there could still be bias due to my firsthand experience with burnout.

Finally, inferential analysis reported a statistically significant positive correlation between emotional exhaustion and depersonalization. This seems unlikely given the high percentage of SETs experiencing high levels of emotional exhaustion (70%) and the high percentage of SETs reporting low levels of depersonalization (74%). To ensure this was not a mistake, I took appropriate steps to investigate this correlation. First, I double

checked the coding of categories, and they were accurate. Second, I reviewed histograms, and created boxplots, scatterplots, and determined the five number summary (i.e. minimum, first quartile, median, third quartile, and maximum). These additional investigations ensured the correlation was correct. Therefore, the likely causes are (a) small sample size, (b) a relatively high proportion of scores close to level cutoffs, and (c) the relatively restricted range of depersonalization.

Implications

I used a mixed methods explanatory sequential study to explore the phenomenon of burnout in rural SETs of students with low incidence disabilities. In doing so, I believe this study has yielded valuable findings and implications for future practice and research.

Theoretical Implications

This study was designed using the Multi-Dimensional Theory (MDT) of Burnout framework (Maslach, 1998). This framework was appropriate for this study to explore and examine how burnout affects rural SETs of students with low incidence disabilities according to different dimensions and levels. MDT was selected for the framework of this study because (a) MDT does not represent a "one-size fits all" approach and presents that burnout can be experienced in different ways by different individuals; and (b) MDT supports that burnout is "an individual stress experience embedded in a context of complex social relationships, and it involves the person's conception of both self and others" (Maslach, 1998, p. 69). The use of the MDT framework allowed me to explore and examine the different dimensions and levels of burnout for each participant to gain a thorough understanding of burnout in rural SETs. Future research using the MDT

framework to evaluate burnout in this population could allow for generalization of findings and to further explore the topic in various geographically rural areas.

Practical Implications

This study not only extends current literature regarding burnout in rural SETs (Berry et al., 2011; Garwood et al., 2018; Ruble et al., 2023a), but also provides detailed description and findings of how SETs of students with low incidence disabilities are experiencing burnout, an under researched and highly needed population of teachers. The findings of this study provide several practical implications for stakeholders, including SETs, administrators, and district support personnel.

Special education teachers can use the information presented to gain awareness into contributing factors of burnout in their profession. By being aware of contributing factors, SETs can take a proactive approach to managing job related stressors. Implementing effective coping strategies, seeking professional support through professional associates, working with a mentor to help develop skills needed to prioritize and take steps to implementing a more cohesive work/life balance, and advocating for themselves to obtain planning periods and duty-free lunches could all provide steps in decreasing feelings of burnout and increasing SETs morale in their work and home lives.

Similarly, administrators can use this information to ensure practices are being implemented to help support SETs. Administrators should ensure SETs receive the same support and resources as general education teachers. Furthermore, administrators should secure time for SETs to have a planning period and duty-free lunch in the same manner as general education teachers and not left to each SET to "make it work." Administrators should collaborate with SETs and general education teachers to establish shared

responsibility of students with disabilities so that does not fall solely on the SET. Additionally, administrators can work with SETs to develop growth plans that promote training in areas of need for the SET. These professional development plans and opportunities are of utmost importance for administrators and SETs to enact, to promote and facilitate professional growth in areas of need. A lack of relevant professional development is evident in rural SETs and found in this study and current literature (Garwood et al., 2018). Furthermore, administration can coordinate a mentor or other outreach person whose job demands and expectations are similar (or were) to the SETs. Research has shown that SETs that report more social support are less likely to experience feelings of burnout (Garwood et al., 2018; Ruble et al., 2023a). Implementing social support interventions aimed at decreasing feelings of emotional exhaustion and depersonalization, and increasing feelings of personal accomplishment could contribute to current literature and determine if these supports are effective in decreasing burnout, in turn, increasing SET retention.

District support personnel can use the information gained from this study to ensure district wide support and resources are in place to support rural SETs and administrators in supporting SETs. First, provide the opportunity for SETs in the district to collaborate with each other. Professional support from those in similar settings and experiences provide support outside of school culture. Second, provide professional development that is relevant and needed within the special education population. With the increase of professional development opportunities offered online and distance, SETs should have the time to participate in training that will advance their knowledge and skills in needed areas. Third, offer cross district mentoring services to SETs. While it is

understandable that the availability of SETs may be limited in rural districts, pairing individuals with similar experiences for mentoring could be an effective way to support SETs. Lastly, work with administrators to ensure that SETs are receiving the same resources and support of general education teachers, including a scheduled planning period and duty-free lunch. Implementing these supports could increase SET morale, self-efficacy, sense of belonging, and increased feelings of accomplishment. These efforts can ultimately reduce levels and feelings of burnout.

Future Research Implications

With the consistent shortage of rural SETs of students with low incidence disabilities there is not only a need to continue exploration of burnout in this population, but also a need to solve this problem to increase retention on an already strapped work force. This can include further exploration about how burnout is affecting rural SETs but also experimental research in which interventions are implemented and evaluated to assess change in burnout levels. This study supports current literature that indicates job demands, unrealistic expectations, coping skills, effective PDs, professional and social support, and interpersonal skills are contributing factors to burnout in rural SETs (Bettini et., 2016; Brunsting et al., Garwood et al., 2018; Ruble et al., 2023a). This study has provided major findings in several areas; albeit a small number of participants, rich insight has been revealed and provides several implications for current and future research.

First, additional research needs to be conducted on SETs of students with low incidence disabilities. Their unique job demands and expectations are different from other educators, even other SETs. It is important to collect quantitative and qualitative data that

reveal how burnout affects this population of teachers. Moreover, future studies need to be conducted on this population of teachers to advance knowledge of this phenomena in the field to national data so this information can be generalized, and systems/interventions can be created and implemented targeting rural SETs of students with low incidence disabilities.

Second, while studying how and why burnout is affecting rural SETs of students with low incidence disabilities, it is imperative that research extends to experimental and preventative research. Implementing and evaluating interventions targeted at decreasing burnout in this population can provide valuable information to the field. Based on the results of this study, coping skills and professional support are two areas that interventions could be evaluated in rural populations. Current research supports the need for social/professional support interventions for rural SETs to prevent stress/burnout would be beneficial to the field (Ruble et al., 2023b). The risk of burnout is reduced (Maslach & Leiter, 2016) when individuals can share and discuss their feelings and experiences with someone in the same field. Furthermore, the results of this study indicate that 87% of participants would be interested in participating in a social support group if one were to be offered. This holds great promise, as a support system available to SETs from geographically rural areas could provide a level of professional support currently lacking in many rural SETs experiences.

Third, mixed methods research provides great advantages in studying this population. Acquiring quantitative data related to burnout and rich detail of participants experiences proves to be an effective way to examine burnout in this population. Replicating this study to gain additional quantitative and qualitative information in other

geographically rural areas can help to generalize the information and add to much needed research on this gap.

Conclusion

Burnout in rural SETs of students with low incidence disabilities is a significant issue impacting districts across the nation. Not only are these positions consistently difficult to attain and retain, but the problem will continue to exacerbate. With projections reporting that rural SETs of low incidence populations to be the highest need area by 2026 (United States Bureau of Statistics, 2017; Jameson et al. 2019), it is imperative that this understudied population of teachers is critically examined and effectively targeted to not only increase their mental health and satisfaction in their career but also to increase job retention of teachers in these areas, issues into which this study offers critical insight.

In this study I used an explanatory sequential mixed methods design to gain an in-depth understanding of how this population of teachers are experiencing burnout. By conducting a review of current literature, I found a research gap in examining burnout in rural SETs, specifically in SETs of students with low incidence disabilities. Additionally, mixed methods studies are needed in this area, as only one other has been conducted evaluating burnout in rural SETs, and this is the first to focus on rural SETs of students with low incidence disabilities populations. Three research questions were used to guide study design, data collection, and data analysis. Results indicated that rural SETs of low incidence populations are experiencing high levels of burnout in emotional exhaustion, low levels in depersonalization, and moderate levels in personal accomplishment. Through quantitative, qualitative, and integrated data analysis I found several factors that contribute to these feelings of burnout. Integration of data provided deep insight into this

phenomenon not previously reported in research of this specific population. The findings of this study are promising to the field and provide several practical and research implications.

In conclusion, this study provided valuable information in that burnout is a "two-fold" experience. That is, there are systematic issues that contribute to burnout (job demands, lack of recognition as a professional, lower pay, lack of professional support). There are also interpersonal factors that can be supported to lessen or handle the excessive job demands and stress of working with low incidence populations. Perhaps if both sides of the coin are supported, levels of burnout in this population will decrease and increase the well-being of SETs; providing more effective education for our students with disabilities and decrease attrition rates of SETs. Continued examination of burnout in rural SETs of low incidence populations is vital to the retention and mental health of SETs. As a field, we must do everything we can to limit the fall of the dedicated and committed.

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Appendix A

Implementation Matrix

Research Question	Theoretical Framework	Data Collection Procedures	Data Analysis Procedures	Expected Outcomes	Point of Integration
QUANTITATIVE What levels and dimensions of burnout are rural special education teachers of students with low incidence disabilities experiencing? What factors are related to burnout in rural special education teachers?	Multi-dimensional theory of burnout	Self-administered surveys Demographic Maslach Burnout Inventory-Educator Survey Convenience sampling with criterion-based sampling scheme	Descriptive statistics Correlational analysis Scale reliability	Frequencies Cronbach's alpha Correlation matrix	
QUALTITATIVE How do rural special education teachers of students with low incidence disabilities describe their lived experiences with of burnout?	Multi-dimensional theory of burnout	*Semi-structured interviews *Purposeful sampling	Thematic coding Use of both inductive and deductive coding Data triangulation	Coded transcripts Categories Themes Visual displays	Nested sampling- use the results from the quantitative phase to select participants for interviews. All qualitative participants will be a subset of quantitative population. Use data gained from quantitative phase to develop interview questions.
Mixed Methods In what ways does the lived experiences of burnout among participants explain the levels and dimensions of burnout reported by quantitative measures?	Multi-dimensional theory of burnout		Merged data analysis Joint displays		Merging of data to develop side-by-side joint displays explaining and expanding on variables associated with burnout from survey and themes developed from semi-structured interviews

Demographic Questionnaire

Demographic Questionnaire

Q1 How old are you?

_____

Q2 What gender are you?

○ Male

○ Female

○ Prefer not to say

Q3 Which category best describes you? (Select all that apply)

☐   White

☐   Black or African American

☐   American Indian or Alaska Native

☐   Asian

☐   Native Hawaiian or Pacific Islander

☐   Other

Q5 How many years have you taught special education?

_____

Q7 What is your highest degree obtained?

○ Bachelor's

○ Master's

○ Doctorate

Q8 What licensure path did you take?

◯ Traditional route

◯ Alternative Certification

◯ Other _____

Q9 How many students are on your caseload?

_____

Q10 What grade level are you currently teaching? (Select all that apply)

☐ Early childhood

☐ Elementary- primary (K-3rd)

☐ Elementary- intermediate (3rd-5th)

☐ Middle school (6th-8th)

☐ High school (9th-12th)

☐ K-12

☐ Other _____

Q11 What setting do you provide instruction to students in? (Select all that apply)

☐   General education/inclusive

☐   Resource Room

☐   Self-contained classroom

☐   Residential

☐   Other _____

Q12 What disability diagnoses do you students have? (Select all that apply)

○ Autism spectrum disorders

○ Developmental delay

○ Emotional/Behavioral disturbance

○ Deaf-blindness

○ Intellectual disability

○ Multiple disabilities

○ Other _____

Q13 Do you currently teach any students that are on Alternate Assessment?

○ No

○ Yes

Q14 Have you had a mentor (an individual with expertise, experience, and certification in special education) at any point in your special education teaching career?

○ No

○ Yes

Q15 Would you be willing to be contacted to participate in a follow-up interview (should take no longer than 30 minutes and will be conducted online) if so, please provide your email address in the line below.

○ No

○ Yes _____

Q16 If a social support/peer-to-peer coaching intervention were to be available in your district with special education teachers from other districts, would you be interested in participating?

○ Yes

○ Maybe

○ No

Appendix C

Maslach Burnout Inventory- Educator Survey Permission Letter

Permission Letter

mind garden

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 license holder has permission to administer the complete instrument in their research, however, only three sample items from this instrument as specified below may be included in the research write-up, 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.

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 D

Informed Consent: Survey

Examining Burnout in Rural Special Education Teachers
Informed Consent- Survey

Dear Participant:

You are being invited to participate in a research study. The purpose of this study is to examine job related attitudes and feelings of burnout of special education teachers. This study is conducted by Kristie Jones, under the direction of Dr. Ginevra Courtade, both at the University of Louisville.

Your participation in the study will involve completing a survey on job related attitudes and feelings, and a demographic survey. The study will take approximately 30 minutes to complete. There are no known risks for your participation in this research study. The information you provide will be used to examine how special education teachers are experiencing job related stress. Your information will be kept private and secured. All collected data will be in digital records maintained on a secure server. Names will be removed and replaced with a pseudonym. The information collected may not benefit you directly. The information learned in this study may be helpful to others.

As a thank-you for taking the time to participate in this study, upon completion of the survey your name will be entered into a random drawing for a chance to win one of five $50.00 Amazon gift cards.

Individuals from the Department of Special Education, Early Childhood, & Prevention Science (SECP), the Institutional Review Board (IRB), the Human Subjects Protection Program Office (HSPPO), and other regulatory agencies may inspect these records. In all other respects, however, the data will be held in confidence to the extent permitted by law. Should the data be published, your identity will not be disclosed.

If you participate in this study, identifiable information such as your name will be removed from the information collected in this study. After removal, the information may be used for future research or shared with other researchers without additional consent from you.

Taking part in this study is voluntary. By answering survey questions, you agree to take part in this research study. You do not have to answer any questions that make you uncomfortable. You may choose not to take part at all. If you decide to be in this study, you may stop taking part at any time. You will not lose any benefits for which you may qualify.

If you have any questions, concerns, or complaints about the research study, please contact: Kristie Jones, 502-407-9725.

If you have any questions about your rights as a research participant, you may call the Human Subjects Protection Program Office at (502) 852-5188. You can discuss any questions about your rights as a research participant, in private, with a member of the Institutional Review Board (IRB). The IRB is an independent committee made up of people from the University community, staff of the institutions, as well as people from the community not connected with these institutions. The IRB has reviewed this research study.

If you have concerns or complaints about the research or research staff and you do not wish to give your name, you may call 1-877-852-1167. This is a 24-hour hot line answered by people who do not work at the University of Louisville.

Sincerely,

Kristie Jones

Version Date: 8/2/2023

Kristie.covington@louisville.edu

(502)-407-9725

Ginevra Courtade, Ph.D.

g.courtade@louisville.edu

(502) 852-2144

Version Date: 8/2/2023

Appendix E

Initial Participant Recruitment Email

Hello,

My name is Kristie Jones, and I am a doctoral student at the University of Louisville. I am currently working on a research study that examines burnout in special education teachers. This topic is of great importance and one I am very passionate about. I was a special education teacher for 14 years and unfortunately, I experienced high levels of burnout which ultimately led me to making the very difficult decision to leave teaching. However, I want to use this new phase of my life and career to really give special education teachers a voice to examine the factors and consequences of burnout in the field. I am inviting you to participate in a survey that evaluates levels of burnout. If you choose to participate, the link to complete the survey and a demographic questionnaire are below. Both items should take no more than 30 minutes to complete, and as a thank you- upon completion you will be entered into a random drawing to win one of five $50 Amazon gift cards.

Additionally, the demographic questionnaire contains an item asking if you would like to be considered for individual one-on-one interviews with me to further explore how you are experiencing burnout. These interviews will be approximately 30-60 minutes and will be conducted via Teams. Everything will remain confidential. No names, schools, or districts will be disclosed.

 If you agree to the interview and are selected to participate, as a thank-you for your time you will receive a $25 Amazon gift card.

Thank-you for taking the time to read this email. I hope you chose to participate in this very important study to determine how special education teachers in Kentucky are experiencing burnout.

Please feel free to reach out to me with any questions or concerns at kristie.covington@louisville.edu or 502-407-9725.

Thank you,

Kristie Jones

Link to preamble, demographic questionnaire, and survey will be here.

Appendix F

Follow-up Participant Email

Hello,

As you recall, you recently received an email from me about a research study examining burnout in special education teachers. This is just a friendly reminder to complete the survey and demographic questionnaire if you have not already done so. I know you are very busy and appreciate you taking the time. Burnout in special education teachers is a serious issue, and participating in the survey will help explore this issue. Upon completion of the survey, you will be eligible for a chance to win a $50 Amazon gift card. The survey will close on _____. Let me know if you have any questions or concerns!

Kristie Jones

Kristie.covington@louisville.edu

(502) 407-9725

Link to preamble, demographic questionnaire, and survey

Appendix G

Semi-Structured Interview Protocol

Interview Protocol
Developed with Multi-dimensional Theory of Burnout

*Thank you for taking the time to speak with me today. The purpose of this interview is to understand and describe how burnout is affecting rural, low-incidence special education teachers. The interview should take approximately 30-60 minutes. You recently reviewed a consent preamble stating the purpose of this study. By participating in this interview, you are giving your consent to participate in this study. The interview will be recorded; however, the recording is just for me, your identity and responses will remain confidential. If at any time you do not want to answer a question or you want to stop the interview, that is not a problem, just let me know. Do I have your permission to record this interview?

Okay, great- let's get started!

I'm going to ask a couple "housekeeping" questions just to get us started. You may see me jotting down notes throughout the interview- I'm listening just want to remember important details.

1) *Please tell me a little bit about how you became a special education teacher.*
    a. *Why did you become a teacher?*
    b. *Tell me about your current teaching assignment.*
        i. *Number of students*
        ii. *Disabilities of students currently teaching*
        iii. *Teaching setting*
        iv. *How many years you have been teaching special education?*
        v. *How long at your current school*
    c. *Have you taught in areas other than special education?*
    d. *How was your teacher preparation program?*

2) *Tell me what it is like for you to be a special education teacher.*
    a. *Walk me through a typical day (arrival time, departure time, lunch, planning time, instructional time, collaborating time).*

3) *Tell me about your relationships at school.*
   a. *Can you describe your relationships with your students? How important are these relationships to you as a teacher?*
   b. *Can you describe your relationships with other teachers? How important are these relationships to you as a teacher?*
   c. *Can you describe your relationships with administration? How important are these relationships to you as a teacher?*
   d. *Can you describe your relationships with parents of students and the community? How important are these relationships to you as a teacher?*

4) ***Emotional Exhaustion.*** *There are three dimensions of burnout that can be experienced. Emotional exhaustion is one of them and can be described as feelings of being emotionally overextended or exhausted by your work.*
   a. *Can you tell you about your experiences with feeling emotionally exhausted?*
   b. *Tell me about the demands/challenges of being a teacher. Do the demands of teaching impact you, mentally? Physically?*
   c. *Do the demands of teaching affect other parts of your life?*
      i. *Tell me about your work/life balance.*
      ii. *What role does this have with your overall mental/physical health and wellbeing?*
      iii. *Tell me about how you cope with these feelings?*

5) ***Depersonalization.*** *One of the dimensions of burnout can be depersonalization. This can be described as unfeeling and impersonal responses towards recipients of instruction. In other words, feelings of negative or cynicism towards students. Sometimes, a "don't really care what happens" situation.*
   a. *Can you talk about your experience with these feelings?*
   b. *Do you think your level of engagement with your students has changed over time? If so, can you tell me about that experience?*

6) ***Personal Accomplishment.*** *One of the dimensions that can be experienced of burnout can be lack of personal accomplishments. This can be defined as reduced feelings of competence and feeling unsuccessful in one's work.*
   a. *Can you talk about your experience with these feelings?*
   b. *Tell me about the last time you felt accomplished or successful at work.*

7) *Tell me about the supports are available to you?*
   a. *Can you tell me about supports/interventions/people that have helped you?*
   b. *What about supports/interventions/people that have hindered you?*
   c. *What kind of supports or resources would you like to have but are not available to you?*

d. Did you/do you have any mentors? Describe that experience.

8) *Tell me about your favorite things or parts of being a special education teacher?*
    a. *Your least favorite?*

9) *Can you tell me about any unique situations or circumstances of being a special education teacher in a rural school setting?*

10) *Think back to when you first started teaching to now. Can you describe how you have changed as a teacher?*
    a. *Do you feel differently about teaching now versus then? If so, what do you think contributes to the change?*
    b. *What are your future plans for teaching?*

11) *What advice or words of wisdom would you give a new special education teacher?*
    a. *What about someone considering becoming a special education teacher?*

12) *Is there anything else you would like to tell me about being a special education teacher in general, experiences of burnout or specific circumstances to teaching in rural settings?*

** General probing questions to use if needed.

    a. Can you tell me more about _____.
    b. You mentioned _____. How did that impact you?
    c. Can you describe_____ in more detail?
    d. *What were you thinking when _____?*

That's all! Thank you so much for taking the time to meet with me and answer these questions. If you think of anything else you would like to add or clarify, you can reach me via email or cell phone.

Appendix H

Informed Consent: Interview

Examining Burnout in Rural Special Education Teachers

Informed Consent: Interview-Version 2

Dear Participant:

You are being invited to participate in a research study. The purpose of this study is to examine job related attitudes and feelings of special education teachers. This study is conducted by Kristie Jones, under the direction of Dr. Ginevra Courtade, both at the University of Louisville.

Your participation in the study will involve participating in an interview on job related attitudes and experiences with burnout. You were selected for participation in this interview based on your responses from the previously administered survey, and you indicated your willingness to participate in follow-up interviews. This interview will take approximately 30-60 minutes to complete. There are no known risks for your participation in this research study. The information you provide will be used to examine how special education teachers are experiencing burnout. Your information will be kept private and secured. All collected data will be in digital records maintained on a secure server. Names will be removed and replaced with a pseudonym. The information collected may not benefit you directly. The information learned in this study may be helpful to others.

As a thank you for participating in this study and to compensate you for your time, you will receive a $25 Amazon gift card upon completion of the interview.

Individuals from the Department of Special Education, Early Childhood, & Prevention Science (SECP), the Institutional Review Board (IRB), the Human Subjects Protection Program Office (HSPPO), and other regulatory agencies may inspect these records. In all other respects, however, the data will be held in confidence to the extent permitted by law. Should the data be published, your identity will not be disclosed.

If you participate in this study, identifiable information such as your name will be removed from the information collected in this study. After removal, the information may be used for future research or shared with other researchers without additional consent from you. The interview will be recorded via Teams, to allow for interview transcription. Only the research team will have access to the interview. Any identifying information will be changed or deleted.

Taking part in this study is voluntary. By participating in the interview, you agree to take part in this research study. You do not have to answer any questions that make you uncomfortable. You may choose not to take part at all. If you decide to be in this study, you may stop taking part at any time. You will not lose any benefits for which you may qualify.

If you have any questions, concerns, or complaints about the research study, please contact: Kristie Jones, 502-407-9725

If you have any questions about your rights as a research participant, you may call the Human Subjects Protection Program Office at (502) 852-5188. You can discuss any questions about your rights as a research participant, in private, with a member of the Institutional Review Board (IRB). The IRB is an independent committee made up of people from the University community, staff of the institutions, as well as people from the community not connected with these institutions. The IRB has reviewed this research study.

Version Date: 8/2/2023

If you have concerns or complaints about the research or research staff and you do not wish to give your name, you may call 1-877-852-1167. This is a 24-hour hot line answered by people who do not work at the University of Louisville.

Sincerely,

Kristie Jones

Kristie.covington@louisville.edu

(502)-407-9725

Ginevra Courtade, Ph.D.

g.courtade@louisville.edu

(502) 852-2144

Version Date: 8/2/2023

Appendix I

Internal Review Board Approval Letter

UNIVERSITY OF LOUISVILLE

DATE:	September 14, 2023
TO:	Ginevra R Courtade, Ph.D.
FROM:	The University of Louisville Institutional Review Board 300 E. Market Street, Suite 380 Louisville, KY 40202
IRB NUMBER:	23.0620
STUDY TITLE:	**Burnout in Rural Special Education Teachers: A Mixed Methods Study on the Fall of the Dedicated and Committed**
REFERENCE #:	770503
CONTACT:	Christy LaDuke 852-2541 clpepp01@louisville.edu

This study now has final IRB approval from 09/14/2023 through 09/13/2026.

Expedited Approval: Category 7: Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

- This study has been granted a waiver of written documentation of consent (waiver of signed consent).

Documents reviewed and approved:

Form Name		Version	Outcome
IRB Study Application		Version 1.1	Approved

Title	Version #	Version Date	Outcome
Interview Protocol- clean version	Version 1.1	08/22/2023	
Survey follow-up email clean version	Version 1.2	08/22/2023	Approved
Recruitment_Email_Director of Special Ed_and Cooperatives- clean version	Version 1.1	08/22/2023	Approved
Initial Recruitment Email clean version	Version 1.2	08/22/2023	Approved
Study Protocol- clean version	Version 1.1	08/22/2023	
Maslach Burnout Inventory-Educator Survey	Version 1.0	08/22/2023	
Demographic questionnaire	Version 1.0	08/22/2023	
Informed Consent-Interview clean version	Version 1.1	08/22/2023	Approved
Informed Consent-Survey	Version 1.0	08/22/2023	Approved

Stamped Approved Documents

IRB policy requires that investigators use the IRB stamped approved version of informed consents, assents, and other materials given to research participants. The IRB applies an approval stamp to the top right hand corner of the document. Stamped documents are noted with "approved" in the table above. For instructions on locating the IRB stamped documents in iRIS visit: https://louisville.app.box.com/s/oh7a7ccyjlsyqxa1goibbgf3rx5jle8v.

Continuation Requirements

- **Your study has been set with a three-year expiration date.** If you complete your study prior to the expiration date, you are required to submit a study closure amendment.
- You are responsible for submitting a continuation request approximately 30 days prior to the expiration date of your research study. If a study lapse occurs, this is considered non-compliance and may prompt a HSPPO audit.
- Human Participants & HIPAA Research training are required for all study personnel. It is the responsibility of the investigator to ensure that all study personnel maintain current Human Participants & HIPAA Research training while the study is ongoing.

Study Site Approval

Permission from the institution or organization where this research will be conducted **must** be obtained before the research can begin (e.g., UofL Health, Norton Healthcare, Jefferson County Public Schools, etc.).

Amendments (Making Changes to the Study)

Prior to making changes to the study, the investigator must submit an amendment to the IRB and receive approval. If the change is being made to ensure the immediate safety and welfare of the participants, refer to the amendments link above for more information.

Reportable Events

The investigator is responsible for reporting certain study events to the IRB within 5 working days. Refer to the reportable events page on the HSPP Website.

In addition, you are required to follow all University of Louisville policies and procedures related to conducting human subjects research, including protecting research data and providing payments to participants. For more information visit: Human Subjects Protection Program Policies.

The committee will be advised of this action.

Thank you,

Melissa Evans Andris, PhD, Vice Chair
Social/Behavioral/Education Institutional Review Board
We value your feedback; let us know how we are doing: https://www.surveymonkey.com/r/CCLHXRP

CURRICULUM VITA

Kristie Jones, M.A.

University of Louisville
Louisville, KY 40292
(502) 407-9725
kristie.covington@louisville.edu
kjones10121@gmail.com

EDUCATION_____

University of Louisville
Ph.D. in Curriculum & Instruction, Special Education   Projected 2024
OSEP funded doctoral scholar

Georgetown College   2012
M.A. Teacher Leadership with endorsement in Autism

Russell Sage Graduate School
Graduate courses, Applied Behavior Analysis   2008

Eastern Kentucky University
B.S. Special Education: Moderate to Severe Disabilities   2006
Cum Laude

TEACHING CERTIFICATIONS_____

Indiana Professional Teaching Certificate Special Education
  Mild to Moderate Disabilities, P-12   2020

National Board Teacher Certification, Exceptional Needs Specialist
  Early Childhood through Young Adult, Severe and Multiple Disabilities   2017

Kentucky Professional Teaching Certificate Special Education, Rank 1
  Moderate to Severe Disabilities, K-12   2017

TEACHING EXPERIENCE_____

156

Instructor, University of Louisville

    EDSP 520: Assessment of Students with Moderate/Severe Disabilities   Fall 2023

Co-Instructor, University of Louisville

    EDSP 635: Moderate and Severe Disabilities Practicum   Spring 2022

    EDSP 520: Assessment of Students with Moderate/Severe Disabilities   Fall 2021

    EDSP 294: Foundational Concepts in Intellectual   Fall 2021
    and Physical Disabilities

    EDSP 345: Special Populations in Schools   Spring 2021

Guest Lecturer

    EDSP 345: Special Populations in Schools, University of Louisville Spring 2022

        Topic: Peer-Mediated Interventions 3/7/2022 & 3/8/2022

    EDSP 510: Legal Issues in Special Education,   Spring 2022

        University of Louisville, Topic: Least Restrictive Environment

    EDSP 520: Assessment of Students with Moderate/Severe Disabilities   Fall 2022

        University of Louisville, Topic: Reading and Math Assessments

University Supervisor MSD Alternate Certification Program   2021-2022

 Mild/Moderate Disabilities Teacher

    Troop Elementary, Paoli, IN   Fall 2021

Moderate/Severe Disabilities Teacher

    Jeffersontown Elementary, Louisville, KY   2013-2020

    Jeffersontown High School, Louisville, KY   2012-2013

    Camp Taylor Elementary, Louisville, KY   2007-2012

    Waianae High School, Waianae, HI   2006-2007

AWARDS_____

John W. Schuster Research Proposal of the Year Award   2024
    American Council on Rural Special Education

University of Louisville   2020-2024
  OSEP Leadership Grant: Project PURPLE

The Honor Society of Phi Kappa Phi   2022

Mentoring Academy   2022

Golden Key International Honor Society
  2021

PUBLICATION_____

Refereed Publications

1. **Covington, K.** & Rowlett, L. (2021) The Who, the Why, the How… a guide to planning effective, 2021collaborative, person-centered transition services for students with disabilities. *Kentucky Teacher Education Journal: The Journal of the Teacher Education Division of the Kentucky Council for Exceptional Children*, *8*(2), 6. https://digitalcommons.murraystate.edu/ktej/vol8/ iss2/6/

Submitted Works

1. Ackerman, K., Ault, M., Courtade, G., Elliott, M., Harmon, T., **Jones, K**., Jordan, K., Long, A., Nutt, J., O'Neill, K., Rowlett, L., Snider, K., Swain, R., & Wright, E. (2023). Preparing future special education faculty for service in rural communities. *Rural Special Education Quarterly.*

PRESENTATIONS_____

1. **Jones**, **K** *(2024, April 4-6) Burnout in rural special educators: A mixed methods study on the fall of the dedicated.* Annual Conference of the American Council on Rural Special Education, Las Vegas, NV. Refereed.

2. **Jones, K.** (2023, January 18-20). *Using Antecedent Movement Breaks to Increase Time On-Task Behavior of Students with Disabilities: A Single-Case Study* [Poster Presentation]. Division on Autism and Developmental Disabilities, Clearwater, FL. Refereed.

3. **Jones, K**. (2023, March 1-4) *Implementing Antecedent Movement Breaks to Increase Time On-Task Behavior*. Council for Exceptional Children Convention & Expo., Louisville, KY. Refereed.

4. **Covington, K**. (2022, January 26-28) *Using Antecedent Movement Breaks to Increase Time On-Task Behavior of Students with Disabilities: A Single-Case Study* [Poster Presentation]. Council for Exceptional Children Convention & Expo, Orlando, FL. Refereed

5. **Covington, K.** & Rowlett, L. (2022, January 16-19) *The Who, the Why, the How… a guide to planning effective, collaborative, person-centered transition services for students with disabilities* [Poster presentation]. Council for Exceptional Children Convention & Expo, Orlando, FL. Refereed.

6. **Covington, K.**, Rowlett,L., Snider, K., & Walte, S. (2021, November 2-5) *Surviving the 1st year: Prepared Teachers & Prepared Tool-Kits help make it happen!* [Poster Presentation]. Annual Conference of the Teacher Education Division of the Council for Exceptional Children, Fort Worth, TX. Refereed.

7. **Covington, K.** & Rowlett, L. (2021, November 2-5). *The Who, the Why, the How… a guide to planning effective, collaborative, person-centered transition services for students with disabilities* [Poster presentation]. Annual Conference of the Teacher Education Division of the Council for Exceptional Children, Fort Worth, TX. Refereed.

8. **Covington, K**. & Rowlett, L. (2021, April 24). *The Who, the Why, the How… a guide to planning effective, collaborative, person-centered transition services for students with disabilities* [Poster presentation]. Kentucky Excellence in Educator Preparation, Virtual Conference. Refereed.

CONFERENCE PRESENTATIONS ACCEPTED

1. **Jones, K** (2024, January 18-20). *Burnout in Rural Special Education Teachers: A Review of the Literature* [Poster presentation]. Annual Conference of the Division for Autism and Developmental Disabilities, Waikiki, HI. Refereed.

2. **Jones, K** (2023, October 31- November 2). *Burnout in Rural Special Education Teachers: A Review of the Literature* [Poster presentation]. Annual Conference of the Teacher Education Division of the Council for Exceptional Children, Long Beach, CA. Refereed.

3. **Jones, K**. (2022, November 20-22). *Implementing Antecedent Movement Breaks to Increase On-Task Behavior of Students with Disabilities* [Poster Presentation]. Annual Conference of Kentucky Exceptional Children, Louisville, KY.

4. **Jones, K**. (2022, November 9-11) *Using Antecedent Movement Breaks to Increase Time On-Task Behavior of Students with Disabilities* [Poster Presentation]. Annual Conference of the Teacher Education Division of the Council for Exceptional Children, . Refereed.

2. **Jones, K.** (2022, April 29). *Using Antecedent Movement Breaks to Increase Time On-Task Behavior of Students with Disabilities: A Single-Case Study*. Kentucky Excellence in Educator Preparation, Virtual Conference. Refereed**.**

3. **Covington, K**. & Rowlett, L. (2022, January 26-28) *The Who, the Why, the How… a guide to planning effective, collaborative, person-centered transition services for students with disabilities* [Poster presentation]. Annual Conference of the Division for Autism and Developmental Disabilities, Clearwater, FL. Refereed.

CONFERENCE PRESENTATIONS SUBMITTED

1. **Jones, K**. (2024, April 4-6) *Burnout in Rural Special Education Teachers: A Mixed Methods Study*]. Annual Conference of the American Council on Rural Special Education, Las Vegas, NV.

SERVICE_____

Rural Special Education Quarterly **2023**
    Peer Reviewer for Manuscript

Kentucky Teacher Education Journal **2022**
    Peer Reviewer for Manuscript

Kentucky Educational Development Corporation **2022**
    Professional Development for Principals

Council for Exceptional Children **2021**
    Division on Autism & Developmental Disabilities
    Summer Conference, Technical Support

Greater Louisville Education Cooperative **2021**
    Transition Resource for Teachers

University Mentor Alternate Certification Teachers **2021-2023**

Focus on Autism and Other Developmental Disabilities **2021**
    Co-Peer Reviewer for Manuscript

Division of Autism and Developmental Disabilities **2021**

Summer Conference: Tech Facilitation

PROFESSIONAL AFFILIATIONS_____

American Council on Rural Special Education (ACRES)

Council for Exceptional Children (CEC)

Division of Autism and Developmental Disabilities (DADD)

Division of Research (CEC-DR)

Teacher Education Division (TED)

      Kentucky Teacher Education Division (K-TED)

The Honor Society of Phi Kappa Phi