FACTORS THAT CONTRIBUTE TO BURNOUT IN VOCATIONAL EDUCATION TEACHERS

by

DWIONNE R. FREEMAN

(Under the Direction of Jay W. Rojewski)

ABSTRACT

The purpose of this survey study was to examine the influence of selected descriptive characteristics on the measures of the three subscales of burnout in vocational education teachers. Descriptive characteristics included age, gender, education, and years of teaching experience. Burnout was defined as a “psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (Maslach & Schaufeli, 1993, p. 2). The three subscales of burnout examined were emotional exhaustion, depersonalization, and personal accomplishment (Maslach, Jackson, & Schwab, 1986).

The population for this study was vocational education teachers in a large urban school system in the metropolitan Atlanta area of Georgia. The convenience sample consisted of 69 vocational education teachers.

Statistical analysis included the use of descriptive statistics and multiple correlation analyses to understand the relationship between the subscales of the Maslach Burnout Inventory—Educators Survey and selected demographic variables. Multiple correlation analyses found that the relationship between each burnout scale and the descriptive characteristics was
low and statistically insignificant. The lack of value of selected variables suggests that the experience of burnout in vocational teachers, many of whom are in second careers, is more complex than previously thought.

INDEX WORDS: Vocational Education, Burnout, Career and Technical Education, Teacher Burnout, Maslach Burnout Inventory—Educators Survey, Multiple Correlation Analysis
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A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

ATHENS, GEORGIA

2016
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May 2016
DEDICATION

To my angels, Ronald Chandler, Sr., Jasper Jones, and Leon Hill. Although you were not alive to see me earn this degree, the memories of your smiles and peaceful spirits were always with me. To my angel Baby Freeman, your memory will be forever in my heart.

To my Nana, for instilling in me a sense of pride and confidence to pursue my dreams and create the life I want for myself. Your life’s journey has been such an inspiration to me and I am in constant awe of your strength! Thank you for always praying for me and being the model woman of graciousness and class, to which I aspire. I love you!

To my husband Kelvin, your enduring support throughout this process has been unparalleled…God could not have given me a better partner! Thank you for helping me remember to breathe, laugh, and smile. Thank you for listening to me vent about education and research when I know you had no idea what I was talking about. And most of all, thank you for sharing this sacrifice with me! I love you!

To my daughters Kelsie and Karlie, for giving my life joy and meaning! You are the most beautiful blessings God could have ever given me. I am so proud to be your mother and I look forward to watching you grow into intelligent and beautiful young women! I love you both!

And last, but certainly not least, to my Mother! Mom, thank you for your supporting me through this journey. Thank you for believing in me when I didn’t believe in myself, and for supporting me when I wanted to keep going! Thank you for teaching me the importance of education, and for teaching me how to be a loving and caring mother. Everything I am…you helped me to be! I love you!
ACKNOWLEDGEMENTS

During the course of this journey, I have been blessed to have people in my life who have helped me through this process. To my big baby brother, thank you for long hugs and random texts that always came at the right time. I will forever be your biggest fan! To my Aunt Synitra for being a second set of eyes and for sharing a love for education with me. To my Mother-in-law Patricia, for helping me with the girls when I needed quiet time to write. To my CWs Tyra and Reese, for your support and motivation to keep going.

To Dr. Theo Smith, Jr., thank you for your gentle and calming words of encouragement and your regular sanity checks. To my mentor Dr. Michael Maze, thank you for sharing your passion and knowledge of CTE with me and for being an inspiration, role model, and friend.

To my major professor, Dr. Jay Rojewski—words simply cannot express my gratitude for your leadership. Thank you for your dedication to supporting me through this process. You told me very early on that I had to be patient in this journey because life will happen…and boy oh boy, did it ever! Thank you for having confidence in me and my abilities as a scholar. Your calm and lighthearted spirit will always be remembered and appreciated. To my committee members Dr. Elaine Adams and Dr. Roger Hill, thank you for your time and invaluable insight. You both have helped me grow academically and I am eternally grateful.

When I started this process, I had no idea what life had in store for me. As I reflect over the past few years I realize that through all of the ups and downs, I am not only a better scholar, but a better person! “What you get by achieving your goals is not as important as what you become by achieving your goals” (Henry David Thoreau)
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CHAPTER 1

INTRODUCTION

Teaching has many rewards; it is a “stimulating job that requires making quick decisions, dealing with interesting people from a variety of backgrounds and experiences, mastering and conveying essential and often complex subject matter, and advocating both for children and for quality education” (American Federation of Teachers, 2008, p. 4). The goal of education is to promote academic growth by stimulating and enlightening students. Being a teacher is a unique, yet essential, profession (Zehm & Kottler; 1993). Nevertheless, teaching, the second largest occupation in the United States after retail sales, has been called a revolving door where qualified teachers enter and then exit unhappy after a few years (Darling-Hammond, 2015; Rinke, 2014). In fact, the National Commission on Teaching and America’s Future (Carroll & Foster, 2010) reported that 46% of all new teachers leave the profession within five years. Researchers have explored the causes of this consistently high statistic in various capacities over the last 30 years, yielding a wide array of causes. A number of researchers have identified burnout as one of the primary causes for the exodus from teaching (Buchanan, Prescott, Schuck, Aubusson, & Burke, 2013; Haberman, 2005; Karsenti & Collin, 2013; Scott-Williams, 2011; Tippens, Ricketts, Morgan, Navarro, & Flanders, 2013).

Burnout refers to a “psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (Maslach & Schaufeli, 1993, p. 21), and occurs when helping professionals experience feelings of being drained and underappreciated (Dworkin, 2001). Often synonymous with stress, burnout is a process, not an event, and is not
identical for each person (Farber, 1983). Whereas stress is a common result of any demand on the body (Selye, 1982) and can occur in endless types of work situations, burnout occurs most often in work with people and as a result of the emotional demands that arise from the interaction with them (Maslach, 1993). Symptoms of burnout include, but are not limited to, declined performance, poor interpersonal relationships, absenteeism, declined sympathy to colleagues, and overall decreased productivity (Leithwood, Menzies, Jantzi, & Leithwood, 1999). While burnout has symptoms that overlap with feelings of depression, stress, psychosomatic complaints, and working alienation, being burned out is a less definitive diagnosis without clear characterizations (Farber, 1991). Another distinguishing factor between burnout and other diagnoses such as depression, is that burnout tends to be isolated to one specific sphere of life, particularly work, as opposed to manifesting itself across all facets of an individual’s life (Farber, 1983). Finally, burnout is a psychological condition that can manifest both mentally and physically and that transcends an individual’s desire to optimally perform in specific environments; it alters moods and personalities and left untreated can become a permanent condition.

Burnout in teachers is worthy of research because of the magnitude the aforementioned symptoms have on the field of education. Teachers are especially vulnerable to burnout because the nature of the profession is contingent upon the mental and intellectual capacity of the individual; teachers rely on their creativity, content knowledge, and overall intellect on a daily basis. Burnout has been known to have an impact on the health, relationships, and self-esteem of teachers, subsequently causing their quality of work to decrease and their efficacy to decline (Brock & Grady, 2000).
Characteristics that have been studied as potential influences on burnout are age (Ahola, Honkonen, Virtanen, Aroma, & Lonnquist, 2008; Antoniou, Ploumpi, & Ntala, 2013; Brewer & Shapard, 2004; Maslach, Schaufeli, & Leiter, 2001), gender (Antoniou et al., 2013; Maslach et al., 2001; Soures, Grossi, & Sundin, 2007), education (Chang, 2009; Maslach et al., 2001), and years of teaching experience (Brewer & Shepard, 2004).

Many studies have been conducted that explore burnout as a construct, its prevalence in educators and other public service professionals, and even the effects of burnout on teachers (e.g., Chenevey, Ewing, & Whittington, 2008; Croom, 2003; Farber, 1991; Fejgin, Ephraty, & Ben-Sira, 1995; Freudenberger, 1974; Haberman, 2005; Kyriacou, 1987; Maslach et al., 2001; Pines & Aronson, 1988; Raedeke, Granzyk, & Warren, 2000; Salanova & Lorens, 2008; Schaufeli, 2003; Schaufeli, Maslach, & Marek, 1993; Wood & McCarthy, 2002). While there is substantial research on burnout and the field of education, research on the relationship between burnout and vocational education teachers is limited.

Vocational education is a collective term that identifies curriculum programs designed to provide students with skills necessary to gain employment soon after graduation (Lynch, 2000). In the United States, programs of this nature are referred to as Career and Technical Education (CTE), or even Career, Technical, and Agricultural Education (CTAE) in the state of Georgia. However, the most common term internationally remains vocational education and will therefore be the term of choice hereafter. Introduced as an option in public schools in the early 20th century, vocational education programs were merely an outlet for students not on track to finish high school to have a chance at being contributing citizens to society (Castellano, Stringfield, & Stone, 2003). As time has passed, vocational education evolved into a vast initiative with a curriculum that is rigorous, diverse, and appealing to a wider range of students by way of
secondary and postsecondary (technical school, community college, and university) courses that lead to industry recognized credentials, certificates, diplomas, associates, and bachelor degrees (Scott & Sarkees-Wircenski, 2008).

In addition to the pressures of being an education professional in the current era of accountability, such as low salaries, managing challenging student behavior, lack of instructional resources, and steadily increasing class sizes (McCarthy, Kissen, Yadley, Wood, & Lambert, 2006), the pressures that vocational education teachers face are multi-faceted and plentiful. Vocational education teachers, administrators, and supporters have identified pressures they face including funding to support the large budgets necessary to maintain the programs, continued training teachers need to stay abreast of the changes in the field, and scheduling concerns teachers must address to ensure students are appropriately sequenced. Vocational education teachers must also deal with the pressures of an ever-changing curriculum that school systems and administrators cannot regularly produce/fund updated resources to support. While these stresses are real for vocational education teachers and pressures regarding the nature of the helping services profession are apparent, research into burnout being an amplified area of concern for vocational education teachers has not yet been produced.

Despite many studies that have been conducted on teacher burnout (e.g., Abel & Sewell, 1999; Antoniou et al., 2013; Brouwers & Tomic, 2000; Byrne, 1991; Cano-Garcia, Padilla-Munoz, & Carrasco-Ortiz, 2005; Chenevey et al., 2008; Croom, 2003; Evers, Tomic, & Brouwers, 2004; Fisher, 2011; Goswami, 2013; Kitchel et al., 2012; Tippens et al., 2013) and the effects of descriptive characteristics such as age, gender, education, and years of teaching experience on burnout (Ahola et al., 2008; Antoniou, Polychroni, & Vlachakis, 2006; Brewer & Shapard, 2004; Chang, 2009; Maslach et al., 2001; Ruhland & Bremer, 2003; Soures et al.,
2007), the focus of these studies has failed to provide insight specifically to teachers of vocational education programs. Primarily reliant on federal funding, the demands, expectations, and accountability of vocational education programs and teachers are consistently under scrutiny. As a result, more research on vocational education, its teachers, and its programs have become progressively warranted. If programs are unable to demonstrate adequacy, prove effectiveness, meet performance expectations, and achieve overall success—all of which are threatened by burned out teachers—the funding and subsequent sustainability of such programs become jeopardized. Therefore, research is needed to understand the prevalence teacher burnout has on the field of vocational education.

**Purpose of Study**

The purpose of this survey study was to examine the influence of selected descriptive characteristics on the measures of the three subscales of burnout (Maslach & Schaufeli, 1993) in vocational education teachers. Descriptive characteristics included age, gender, education, and years of teaching experience. Burnout is defined as a “psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (Maslach & Schaufeli, 1993, p. 2). The three subscales of burnout are emotional exhaustion—feelings of being emotionally exhausted by work (Maslach & Jackson, 1981b), depersonalization—an attempt to put a distance between oneself and service recipients by ignoring the qualities that make them unique and engaging (Maslach et al., 2001), and reduced personal accomplishment—a decline in one’s feelings of competence and successful achievement of one’s work (Maslach, Jackson, & Schwab, 1986).
Research Questions

1. What is the level of emotional exhaustion, depersonalization, and personal accomplishment in vocational education teachers?

2. What are the relationships between emotional exhaustion, depersonalization, and personal accomplishment and the descriptive characteristics of age, gender, education, and years of teaching experience?

Theoretical/Conceptual Framework

Although the concept of burnout did not directly derive from an existing theory, it has often been compared, linked, or studied alongside the concept of stress. Stress, the nonspecific/common response of the body to external demands, occurs when there is either a real or perceived imbalance between environmental demands and the response capabilities of an individual (Farber, 1983). Burnout is the result of prolonged unmediated stress—whereby no support or recourse is available (Farber, 1982). Although the concepts are similar, it is believed that stress is the antecedent to burnout (Farber, 1983; Hobfoll & Freedy, 1993). One theory that draws the connection between stress and burnout is Selye’s (1974) General Adaptation Syndrome theory.

The General Adaptation Syndrome theory (Selye, 1974) described a three-part process that consists of alarm reaction, resistance, and exhaustion. Alarm reaction is the body’s first response to stress, when levels of stress are at their highest as a result of the body’s release of hormones that influence higher heart rates and blood pressure. The second step is resistance, which is the body’s response to continued exposure to stress in an effort to adapt. It is during this stage that the body attempts to fight back stress and repair damage incurred during the alarm reaction stage. Exhaustion, the final stage, is when the body can no longer combat prolonged
exposure and effects become intolerable (Humphrey & Humphrey, 1986; Selye, 1974, 1983). It is after the exhaustion stage that burnout is believed to ensue.

The concept of burnout began to emerge as a problem worthy of research in the mid-1970s. Introduced as a social problem, not a scholarly construct, its conception was developed pragmatically as opposed to theoretically or academically (Maslach & Schaufeli, 1993). As a result, early studies lacked a conceptual model of burnout that could be tested, as well as clear rationales for variable choices (Maslach, 1999). Eventually, the conceptual development of burnout was divided into two phases, a pioneering phase and an empirical phase (Maslach, 1993; Maslach et al., 2001). The pioneering phase of burnout research occurred during the mid-1970s.

Literature during this time was written by practicing clinicians explaining their personal experiences, not researchers, so the focus of the literature was primarily on symptoms and preventative measures based on individual case study observations (Freudenberger, 1974; Greene, 1960). Although the concept was not new, burnout as a phenomenon plaguing human service professionals was. The literature at the time was too shallow and unsubstantiated to define parameters of the construct to develop a framework.

By the early 1980s, literature on burnout shifted to empirical research of a quantitative nature that focused on the assessment of burnout (Maslach et al., 2001). As a result, researchers developed a common language for studying burnout that allowed for those studying burnout to “make direct comparisons between their own findings and those of others—thus allowing new studies to build on the contributions of previous ones” (Maslach, 1999, p. 215). Additionally, several assessment measures of burnout were developed and research on the phenomenon began to spark international interest.
The first and most predominant assessment measure of burnout was the Maslach Burnout Inventory—Human Services Survey (MBI-HSS). Designed specifically for measuring burnout in human service professionals, the MBI (Maslach & Jackson, 1981a) has had a significant impact on burnout research and influenced subsequent research, theories and instruments, such as the Maslach Burnout Inventory—Educators Survey (Maslach et al., 1986), the Maslach Burnout Inventory—General Survey (Schaufeli, Leiter, Maslach, & Jackson, 1996), the Oldenburg Burnout Inventory (Halbesleben & Demerouti, 2005), the Copenhagen Burnout Inventory (Kristensen, Borritz, Villadsen, & Christensen, 2005), and the Areas of Worklife Survey (Leiter & Maslach, 2005), all of which are derivatives of the MBI. Despite the various uses and variety of opinions about burnout, there is an “underlying consensus about the three core dimensions of the burnout experience and subsequent research on the issue led to the development of a multidimensional theory of burnout” (Maslach et al., 2001, p. 42).

The operational definition of burnout is “a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (Maslach, 1993, p. 21). This three-dimensional approach characterizes burnout by emotional exhaustion—feelings of being emotionally exhausted by work (Maslach & Jackson, 1981a), depersonalization—an attempt to put a distance between oneself and service recipients by ignoring the qualities that make them unique and engaging (Maslach et al., 2001), and reduced personal accomplishment—a decline in one’s feelings of competence and successful achievement of one’s work.

Theoretically, stress plays an integral part in the development of burnout as described by Selye’s (1974) General Adaptation Syndrome. As individuals reach a point of physical or mental exhaustion, burnout emerges. Conceptually, burnout is a multidimensional concept that
is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. Burnout cannot exist without an individual first experiencing prolonged stress. Together, Selye’s (1974) General Adaptation Syndrome theory and Maslach’s multi-dimensional burnout concept reflected in the Maslach Burnout Inventory—Educators Survey (Maslach et al., 1986) serve as the framework for my study.

The instrument selected for this study will be the Maslach Burnout Inventory—Educators Survey (MBI-ES). The MBI-ES (Maslach et al., 1986), created with the specific intention of measuring burnout in educators, is revered as the most widely employed burnout questionnaire (Enzmann, Schaufeli, Jansen, & Rozeman, 1998; Schaufeli et al., 1993; Schaufeli, Bakker, Hoogduin, Schaap, & Kladler, 2001). The MBI-ES is a 22-item survey that measures burnout as a three-dimensional syndrome characterized by emotional exhaustion—feelings of being emotionally exhausted by work (Maslach & Jackson, 1981b), depersonalization—an attempt to put a distance between oneself and service recipients by ignoring the qualities that make them unique and engaging (Maslach et al., 2001), and reduced personal accomplishment—a decline in one’s feelings of competence and successful achievement of one’s work. Each of the questions on the MBI-ES is scored on a scale from 0 to express no experience at all, to 1-6 to express increased likeliness of presence/experience of burnout symptoms.

**Importance of Study**

Education is a dynamic field that relies on healthy, passionate, empowered professionals. Burnout is a threat to the quality and personal mental health of classroom teachers. Research has shown that burnout has an impact on teachers and the field of education (Abel & Sewell, 1999; Antoniou et al., 2013; Brouwers & Tomic, 2000; Byrne, 1991; Chenevey et al., 2008; Croom, 2003; Fisher, 2011; Goswami, 2013; Kitchel et al., 2012; Tippens et al., 2013; Yong & Yue,
However, little research has been conducted on the burnout of vocational education teachers. With increased accountability for vocational education teachers and high expectations for program performance, attention to this gap in literature is important because burned out teachers display symptoms that cripple their ability to effectively impart knowledge to their students and they threaten the overall success of their programs.

Despite emergent research, much is yet to be understood about burnout in vocational education teachers. Researching burnout in vocational education teachers will make a constructive difference not only for the body of literature on burnout, but it can impact vocational teachers as well as school and system administrators of vocational education programs in regards to practice, policy, and professional development. The more that is known about how the selected demographic variables impact the burnout of vocational education teachers, the more proactive stakeholders can be in anticipating/avoiding burnout before it ensues. By providing insight into how vocational education teachers are vulnerable to burnout, the results of this study can enhance the experiences of the teaching professionals and inform practices of the administrators of schools and school systems. Teacher practices can be enhanced by understanding and having a knowledge of triggers, characteristic vulnerabilities, and burnout risks in general. Administrators can use the results to enhance professional development opportunities, provide resources and support for their teachers, and inform policy changes that will support/prevent/remedy burnout in vocational education teachers.
CHAPTER 2

REVIEW OF LITERATURE

This chapter presents a review of literature pertaining to burnout. First, the burnout construct is discussed, followed by the theoretical/conceptual framework of burnout. Next, the historical evolution, and hence, the multi-dimensional approach to burnout, subscales, and various measurements of burnout will be discussed. This chapter will conclude with a review of research studies about burnout and a brief explanation of the antithesis of burnout.

The Burnout Construct

The concept of burnout can be traced back long before it became a phenomenon in the early 1970s. As far back as 1599, burnout was used in a Shakespeare poem to describe an experience with love (Shakespeare, 2006). In a best-selling novel entitled A Burnt-out Case (Greene, 1960), burnout is used to describe the experiences of an architect losing his desire to be artist and his journey to restore his passion for life.

Merriam-Webster’s definition of the verb burn out is “to fail, wear out or become exhausted by making excessive demands on energy, strength, or resources” (burn out, 2016). Furthermore, Schaufeli and Enzmann asserted:

“Burnout describes a state of exhaustion similar to smothering of a fire or the extinguishing of a candle. Where there used to be a vital spark and the flame of life was burning bright, it is now dark and chilly. The fuel has been used up and the energy back up is depleted” (1998, p. 1).
Often described as a metaphor, burnout is the result of giving too much for too long and getting too little in return—the extended result of an imbalance between investments and outcomes (Schaufeli & Enzmann, 1998). However, as the concept evolved, it was found that describing burnout was easier than conceptualizing it. What is burnout—a state or process?

This question is often approached through definitions. Maslach and Jackson (1986) approach burnout as a state and define it as “a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do ‘people work’ of some kind” (p. 1). Conversely, Cherniss (1980) described burnout as “a process in which the professional’s attitudes and behavior change in negative ways in response to job strain” (p. 5). This process is further described as having three stages: stress, strain, and defensive coping. (Cherniss, 1980b). To describe burnout as a state implies that core characteristics must to be selected as symptoms of burnout. Yet, to describe burnout as a process implies that burnout is the end result of a process. The aforementioned definitions are actually complementary in that the state definitions describe the end-state of the burnout process (Schaufeli & Enzmann, 1998). Ultimately, burnout is perceived to be both a state and a process, although it is not identically experienced by each person (Farber, 1983; Schaufeli & Buunk, 2003; Schaufeli & Enzmann, 1998). Nevertheless, it would be remiss to fail to mention that the leading measurement of burnout, the Maslach Burnout Inventory-Educators Survey, was developed under the notion of burnout as a state (Maslach, 1993). The conceptual framework for the burnout construct expounded upon in the next section.

**Theoretical/Conceptual Framework for the Burnout Construct**

The burnout construct bears a backwards design to a theoretical concept. The burnout phenomenon began as a practical/social problem so there was no emphasis on developing
theories to support it; the phenomenon was new, the existing body of literature was unorganized, and as a result, there was no distinct conceptual framework for theorizing, evaluating findings, and proposing solutions (Maslach & Schaufeli, 1993). Due to the lack of a theoretical framework for the construct, as opposed to starting with a theory and developing implications for a social issue, burnout researchers have had to apply a theoretical model to a social issue that had already been declared. Consequently, “different people will work backward toward different theoretical models for the same problem, depending on their particular perspective” (Maslach & Schaufeli, 1993, p.5). Nevertheless, the diverse assortment of theoretical perspectives that have emerged characterized the burnout field (Maslach & Jackson, 1984; Maslach & Schaufeli, 1993). In regard to teacher burnout, a common theoretical framework has been the relationship between stress and burnout.

Burnout has often been compared, linked, or studied alongside the more common concept of stress. Stress, the nonspecific/common response of the body to any demand made on it, occurs when there is either a real or perceived imbalance between environmental demands and the response capabilities of an individual (Farber, 1983; Selye, 1976). Burnout on the other hand is the result of unmediated stress—whereby no support or recourse is available (Farber, 1982). Although the concepts are similar, it is believed that stress is the antecedent to burnout (Farber, 1983; Hobfoll & Freedy, 1993). One theory in particular that draws the connection between stress and burnout is Selye’s (1950) General Adaptation Syndrome theory.

**General Adaptation Syndrome Theory**

The General Adaptation Syndrome theory was developed by Hans Selye in 1950. Dr. Selye, commonly referred to as the father of stress research, has written over 1400 articles and 33 books on stress related topics (Cedoline, 1982). As an endocrinologist, Dr. Selye was perplexed
by why so many of his patients, with various diseases, had so many symptoms in common. After years of research, he concluded that stress was the common thread. His early research focused on creating a universal definition and premise for his theory on stress which he concluded was caused by physiological, psychological and environmental demands (Selye, 1950).

To understand the General Adaptation Syndrome, it is best to clarify the theory by which it is believed to be derived. The Yerkes-Dodson Law/Inverted U theory explains the impact of stress on performance whereas too little or too much arousal (early synonym for stress) degrades performance, resulting in a curvilinear relationship called the Inverted U (Pomeroy, 2013; Staal, 2004). According to the graphical representation of the theory, an inverted U shape is plotted on a graph where the x-axis measures pressure from low to high, and the y-axis measures performance from low to high. The left side of the graph (low pressure, low performance) is indicative of boredom. The optimum stress level is at the highest point in the inverted U, representing the area of the graph that accounts for medium pressure and high performance—the area where the best levels of performance are believed to occur. The far side of the graph represents high pressure and low performance whereby the maximum levels of stress, anxiety, and unhappiness occur. Although the Inverted U theory illustrates the impact of stress on performance, it lacks the incorporation of psychological factors that are believed to be essential in the understanding of stress (Pomeroy, 2013). Based on this understanding of stress, researchers believe Selye continued the evolution of stress research by conceptualizing the General Adaptation Syndrome (Staal, 2004).

Selye’s General Adaptation Syndrome theory describes an integrated syndrome of closely interrelated adaptive reactions to non-specific stress itself (Selye, 1950). The General Adaptation Syndrome is a three-part process that consists of three stages: alarm reaction,
resistance, and exhaustion. Alarm reaction is the body’s first response to stress where an external stimulus elicits body defense mechanisms such as adrenaline and cortisol (Selye, 1976). This state often occurs with the fight or flight syndrome which is the involuntary rise of blood pressure, increased heart beats, breathing, sweat production, and blood flow to muscles by the nervous system (Everly & Lating, 2012; Selye, 1976). The second stage, resistance, is the body’s response to continued exposure to stress in an effort to adapt/cope and have the exact opposite reaction to the alarm response (Selye, 1976). The third and final stage is exhaustion, which occurs when the body can no longer combat prolonged exposure to the stressor and the effects become increasingly difficult to combat—the ability to resist is lost (Selye, 1974; Selye, 1983). Ultimately, the body’s resistance to stress can only last for so long before becoming exhausted. It is after the exhaustion stage that burnout is believed to ensue (Maslach & Schaufeli, 1993).

The General Adaptation Syndrome is unique in that the syndrome is believed to occur irrespective of the stressor being a positive or negative event or emotion. Selye (1974) introduced the terms eustress to describe the physiological response to positive events or emotions, and distress to refer to negative events and emotions. As stress research has progressed, several studies on teacher stress and burnout have used the General Adaptation Syndrome as a theoretical framework for their research (Adams, 1999; Adams 2001; Blasé, 1986; Gold, 1984; Friedman, 2000) supporting the choice for the General Adaptation Syndrome to be used as the theoretical framework for this burnout study.

**Maslach’s Multidimensional Concept of Burnout**

The concept of burnout began to emerge as a problem worthy of research in the mid-1970s. Introduced as a social problem, not a scholarly construct, its conception was developed
pragmatically as opposed to theoretically or academically (Maslach & Schaufeli, 1993). The conceptual development of burnout has been divided into two phases: a pioneering phase and an empirical phase (Maslach, 1993; Maslach et al., 2001).

**Pioneering Phase.** According to Maslach (1993), the literature on burnout during the pioneering phase was plentiful and had three identifying characteristics:

1. The term burnout was used differently by each writer—there were various definitions being used matched the author’s concept as opposed to a universal definition that would give a reader a clear understanding

2. Over the first 10 years (1974-1984), the concept was expanded to encompass more than it did originally. Burnout was being used to describe too many things leaving the true meaning superficial. Maslach and Jackson (1984) referenced the old saying, ‘when something means everything, it means nothing at all’.

3. The literature of this phase was non-empirical--written by practitioners, not researchers, so the focus of the literature was primarily on symptoms and preventative measures based on individual case study observations. In fact, Perlman and Hartman (1982) did a review of nearly 50 articles that were published over a seven year period and found that only 10% reflected any empirical data.

One practitioner in particular was Herbert Freudenberger, a clinical psychologist that characterized burnout as “the physical and psychological status of certain volunteers working with drug abusers in alternative healthcare agencies” (Farber, 1991, p. 5). Freudenberger explained that burnout is not a condition that gets better by being ignored and is most prevalent in hard working individuals in helping professions that strive to reach professional goals (Freudenberger & Richelson, 1980). Although the concept was not new (Freudenberger, 1974;
Greene, 1960; Perlman & Hartman, 1982), burnout as a phenomenon plaguing human service professionals was.

**Empirical Phase.** The literature during the empirical phase shifted to research of a quantitative nature that focused on the assessment of burnout (Maslach et al., 2001). When the concept of burnout was being empirically developed, there was no existing definition or standardized instrument that measured burnout. Maslach and Jackson (1981b) approached the concept of burnout from a more research-oriented perspective and developed a definition through years of exploratory research by way of interviews, surveys and field observations. As a result of their research, three key themes emerged: (1) emotional experience played an important role in the provision of healthcare; (2) a negative shift over time was in the practitioners’ perceptions and feelings about their patients; and (3) emotional turmoil that was interpreted as their formal training insufficiently preparing them for the reality of their work. Upon the realization of their consistent themes, Maslach and Jackson (1986) developed an operational definition of burnout that was comprehensive of the three themes and sought to develop a standardized measurement of the burnout phenomenon. Furthermore, their research from this point forward was conducted with a newfound focus on various human service occupations.

The final definition of burnout was a “psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (p. 20). Burnout was found to occur when helping professionals experienced feelings of being drained and underappreciated later placing blame on their patients or students (Dworkin, 2001).

Theoretically, stress plays an integral part in the development of burnout as demonstrated by Selye’s (1974) General Adaptation Syndrome. As individuals evolve to the point of
exhaustion and can no longer combat the prolonged exposure to stress, the effects become irreversible and burnout emerges.

Conceptually, burnout is a multidimensional concept that is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. Although burnout did not directly emerge from an existing theory, burnout cannot exist without an individual first experiencing prolonged stress—as described in the General Adaptation Syndrome. Together, Selye’s (1974) General Adaptation Syndrome theory and Maslach’s multi-dimensional burnout concept demonstrated in the Maslach Burnout Inventory (Maslach et al., 1986) serve as the ideal theoretical and conceptual frameworks for this study.

Measurements of Burnout

As the research on burnout has evolved, several measurements have developed to assess the feelings and emotions that are generated. Due to the vagueness of the construct early in its conception, approaches to the measurement and the subscales within measurements vary. Nevertheless, three specific measurements of burnout have developed as instruments for burnout studies: the Teacher Burnout Scale (Seidman & Zager, 1986), the Burnout Measure (Pines & Aronson, 1988), and the Maslach Burnout Inventory—Educators Survey (Maslach et al., 1986).

Teacher Burnout Scale

The Teacher Burnout Scale (Seidman & Zager, 1986) was developed as an instrument to measure burnout in public school teachers. The authors defined burnout as “a negative pattern of responding to stressful teaching events, to students, and to teaching as well a perception that there is a lack of administrative support” (Seidman & Zager, 1986, p. 26). The Teacher Burnout Scale was created before the Maslach Burnout Inventory—Educators Survey (Maslach et al., 1986) was published as a means of focusing specifically on teachers and not just the helping
profession as the Maslach Burnout Inventory—Human Services Survey (Maslach & Jackson, 1981a) did originally. As a 21-item instrument, the Teacher Burnout Scale measures burnout with four subscales: career satisfaction, perceived administrative support, coping with job related stress, and attitudes toward students. Based on the subscales, the Teacher Burnout Scale appears to be optimal for burnout studies in education professionals; however, a review of literature produced only one study that used this instrument (Fejgin et al., 1995). The purpose of the study was to identify the work environment factors that had a relationship with burnout in physical education teachers. The study found that there were no significant relationships between any variables and burnout.

**The Burnout Measure**

The Burnout Measure (Pines & Aronson, 1988), originally named the *Tedium Measure*, is regarded as the second most widely used instrument in burnout research. The authors created the *Tedium Measure* based on their belief in the relationship between boredom—the result of any prolonged chronic pressure, and burnout—the result of emotional pressure associated with intense involvement with people over extended periods of time (Schaufeli, Enzmann & Girault, 1993). The Burnout Measure became the final product of evolved understanding of the burnout concept (Schaufeli et al., 1993). Burnout, according to Pines and Aronson (1988), is defined as “a state of physical, emotional, and mental exhaustion caused by long-term involvement in situations that are emotionally demanding” (p. 9). Based on this definition of burnout, the Burnout Measure consists of 21 items that measure there subscales: physical exhaustion—low energy, chronic fatigue, and weakness; emotional exhaustion—feelings of helplessness, hopelessness, and entrapment; and mental exhaustion—development of negative attitudes towards one’s self, work, and life itself (Enzmann et al., 1998). This measurement is scored on a
7-point rating scale from never (0) to always (7) that is used to classify people at risk for developing burnout (Schaufeli et al., 1993). Once a score for each number is identified, a composite score for all 22 items is calculated to represent all three exhaustion subscales. The Cronbach for the Burnout Measure is usually above .90 classifying it as an internally consistent questionnaire (Schaufeli et al., 2001).

The Burnout Measure has been praised for its applicability across professional groups (Schaufeli et al., 1993) and has been adapted and translated by international institutions studying burnout. Nevertheless, critics of the Burnout Measure have found two major issues with the measurement:

1. The definition of burnout used to create the Burnout Measure was multidimensional, yet the instrument is considered to be one-dimensional (Schaufeli et al., 1993).
2. The Burnout Measure is designed to measure burnout in any occupation or group of people so the phrasing of the items is so vague that the distinctiveness of the measurement is threatened. (Enzmann et al., 1998).

Despite critics’ claims, the Burnout Measure is a “reliable and valid instrument that indicates the level of exhaustion, which is considered to be the core element of the burnout syndrome” (Schaufeli et al., 1993, p. 207). Interestingly, in a review of literature, the only studies that could be found that used this instrument were two that sought to determine the validity of the instrument alone (Enzmann et al., 1998) as well as alongside other comparable measurements such as the Maslach Burnout Inventory—Educators Survey (MBI-ES, Schaufeli et al., 2001). It was concluded that the practical use of the Burnout Measure is more limited than the MBI-ES.
because the questions are free of context. Enzmann et al., 1998 concluded that the Burnout Measure captures only a particular aspect of burnout and is rather a measure of general well-being.

**Maslach Burnout Inventory—Educators Survey**

Coined as one of the foremost experts on burnout, Maslach (1993) developed an assessment of burnout entitled the Maslach Burnout Inventory. The Maslach Burnout Inventory (Maslach & Jackson, 1981a) was created with the specific intention of measuring burnout in the human service and helping professionals, and is revered as the most widely employed burnout questionnaire (Enzmann et al., 1998; Schaufeli et al., 1993; Schaufeli et al., 2001). The Maslach Burnout Inventory (MBI) is a 22-item survey that measures burnout as a three-dimensional syndrome characterized by emotional exhaustion—feelings of being emotionally exhausted by work (Maslach & Jackson, 1981b), depersonalization—an attempt to put a distance between oneself and service recipients by ignoring the qualities that make them unique and engaging (Maslach et al., 2001), and reduced personal accomplishment—a decline in one’s feelings of competence and successful achievement of one’s work.

The MBI was intended for the human services profession so the original name for the instrument was the Maslach Burnout Inventory—Human Services Survey (Maslach & Jackson, 1981a). A second version, the MBI—Educators Survey (Maslach et al., 1986), was developed specifically for professionals in educational settings. The third and final version, the MBI-General Survey (Schaufeli, Leiter, Maslach, & Jackson, 1996) was developed for non-service oriented professions. With each version of the inventory, the subscales and item wordings were modified to accommodate the demographic.
The Maslach Burnout Inventory—Educators Survey (MBI-ES) is a 22-item instrument that measures burnout based on the frequency of feeling emotional exhaustion, depersonalization or reduced personal accomplishment. Each of the questions on the MBI-ES is scored on a scale of 0 to express no experience at all, and 1-7 to express increased likeliness of presence/experience. Of the 22 items on the questionnaire, nine assess emotional exhaustion, five assess depersonalization, and eight questions assess personal accomplishment. The MBI-ES does not provide one composite score for assessing burnout. Instead, each of the 22 items is scored according to the key provided and a total score for each subscale can be calculated. Once a total score for each scale is calculated, each participant’s propensity to display a factor of burnout is determined. A consistent criticism of the MBI-ES is that all three subscales do not show consistent relationships and may therefore insinuate that the outlying subscale (reduced personal accomplishment) should be removed (Halbesleben & Buckley, 2006).

Despite critics’ claims about the MBI-ES, it is by far the most widely-used and popular instrument with the best psychometric properties to assess burnout with over 90% of burnout studies, journal articles and dissertations citing its use (McCarthy et al., 2006). The Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) has had a substantial impact on the field of burnout research and has influenced subsequent research, instruments, and theories such as the Oldenburg Burnout Inventory (Halbesleben & Demerouti, 2005), the Copenhagen Burnout Inventory (Kristensen et al., 2005), and the Areas of Worklife Survey (Leiter & Maslach, 2005). Despite the various uses and variety of opinions about burnout, there is an “underlying consensus about the three core dimensions of the burnout experience, and subsequent research on the issue led to the development of a multidimensional theory of burnout” (Maslach et al., 2001, p. 42).
Maslach Burnout Inventory Subscales

The conceptual operational definition of burnout is “a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (Maslach, 1993, p.21). This three dimensional approach characterized burnout by emotional exhaustion, depersonalization, and reduced personal accomplishment—each of which assesses different aspects of experienced burnout.

**Emotional exhaustion.** Emotional exhaustion is the “central quality of burnout and most obvious manifestation of the burnout construct” (Maslach et al., 2001, p. 402). Appropriately correlated with the stress dimension of burnout, emotional exhaustion, as a subscale, describes feelings of being exhausted or emotionally spent from work (Maslach & Jackson, 1981b). An example of an emotional exhaustion question on the MBI-ES is *I feel like I’m at the end of my rope* (Maslach et al., 1996). Symptoms of emotional exhaustion include feeling drained and used up without enough energy to face another person in need (Maslach & Goldberg, 1998). As a result, emotional exhaustion leads to a feeling of the inability to give at a psychological level.

**Depersonalization.** Depersonalization is an attempt to put distance between oneself and service recipients by actively ignoring the qualities that make them unique and engaging people (Maslach et al., 2001). As a subscale, depersonalization is described as an unfeeling and impersonal response towards recipients of one’s care or service (Maslach & Jackson, 1981b). An example of a depersonalization question on the MBI-ES is *I feel I treat some students as if they were impersonal objects* (Maslach et al., 1996). Symptoms of depersonalization in educators are cynical, distant, and detached attitudes towards people with which you work (Kokkinos, 2007). As a result of feeling burnout, teachers unintentionally display feelings of
depersonalization toward students by using terms that are derogatory, tuning out the students at the school setting, and physically distancing themselves from students (Maslach et al., 1996).

**Reduced personal accomplishment.** Reduced personal accomplishment is described as a negative self-evaluation and general feelings of not being happy with the teaching profession (Maslach & Jackson, 1981b). In a service occupation such as teaching, a commitment to serving students is critical. When teachers are plagued with feelings of disappointment and failure to adequately service students, feelings of reduced personal accomplishment arise. Yong and Yue (2008) added that feelings of reduced personal accomplishment surface when teachers feel they are not receiving adequate compensation or recognition for their efforts. Personal accomplishment is the actual name of the MBI-ES subscale and is described as feelings of competence and successful achievement in working with people. An example of a personal accomplishment question on the MBI-ES is “I feel I’m positively influencing other people’s lives through my work” (Maslach et al., 1996). The personal accomplishment subscale is independent of the depersonalization and emotional exhaustion subscales and in contrast lower scores on this subscale are equated to higher burnout. Thus, interchangeable references to personal accomplishment and reduced personal accomplishment are consistently found in burnout literature.

**Scoring the Maslach Burnout Inventory**

The Maslach Burnout Inventory—Educators Survey (MBI-ES) is a 22-item instrument that measures burnout based on the frequency of feeling emotional exhaustion, depersonalization or reduced personal accomplishment. According to the MBI-ES manual (Maslach et al., 1996), each of the questions on the MBI-ES is scored on a scale of 0 to express no experience at all, and 1-6 to express increased likeliness of presence/experience. Of the 22 items on the questionnaire,
nine assess emotional exhaustion, five assess depersonalization, and eight questions assess personal accomplishment. The MBI-ES does not provide one composite score for assessing burnout. Instead, each of the 22 items is scored according to the key provided and a total score for each subscale can be calculated. Once a total score for each scale is calculated, the score allows the researcher to determine each participant’s propensity to display a factor of burnout. The scoring key has cutoff points for each subscale and allow for each score to be coded as low, moderate, or high. For emotional exhaustion, low scores are 0-16, moderate scores are 17-26 and high scores are 27 and over. For depersonalization, scores of 0-6 are low, 7-12 are moderate and scores of 13 and over are considered high. Since a low level of personal accomplishment is associated with burnout, the items are scored in the opposite direction of the other two subscales. Therefore, low scores for personal accomplishment are 39 and over, moderate scores are 32-38 and high scores are 0-31 (Maslach et al., 1996). Nonetheless, the coding is primarily intended for feedback to individual respondents to be “compared to the overall norm, and to obtain a rough assessment of the degree of his or her experience with the various aspects of burnout” (Maslach et al., 1996, p. 9).

Construct validity of the MBI-ES assessed by Maslach et al., (1986) reported Cronbach’s alpha estimates of two studies. The results were .90 and .88 for emotional exhaustion, .76 and .74 for depersonalization, and .76 and .72 for personal accomplishment. Gloeckner et al. (2001) contend that scores above .70 indicate adequate support for reliability and strong support for research validity. Although the values obtained for the personal accomplishment and depersonalization subscales were not optimal, they are similar to the values reported by Maslach et al., 1986.
**Burnout Research**

Many studies have been conducted to determine the factors that contribute to burnout in teachers—most of which incorporated demographic variables. The following review of literature will identify demographic variables that have been studied in conjunction with burnout as age, gender, marital status, income, years of teaching experience, education level, teacher preparation, contract length, financial support, and specialty. Furthermore, few studies were found to have addressed the relationship between burnout and vocational education teachers (Chenevey et al., 2008; Croom, 2003; Kitchel et al., 2012). However, a comprehensive search yielded a number of studies that examined the relationship between burnout and occupational stress, geographic location, job satisfaction, and personality in a variety of education professionals including: special education teachers, novice and veteran teachers, primary versus secondary teachers, and university teachers, among others.

**Vocational Education Teacher Burnout Studies**

A review of literature presented three studies that were specific to vocational education teachers—specifically agricultural education. Croom (2003) investigated burnout in a sample of 248 agricultural education teachers in three southeastern states using the Maslach Burnout Inventory—Educators Survey instrument. Reliability for the study was .90, .75, and .77 for emotional exhaustion, depersonalization, and personal accomplishment, respectively. Findings from the study concluded that agricultural education teachers experienced moderate levels of emotional exhaustion, low levels of depersonalization, and high levels of personal accomplishment. It was also found that gender, education, teacher preparation, and contract length had no significant effect on any of the Maslach Burnout Inventory—Educators Survey subscales. The only significant relationship found was between age and years of teaching.
experience and the depersonalization subscale. The relationship indicated that as teachers got older and more experienced, their levels of depersonalization decreased. Croom (2003) concluded that burnout was not a serious problem for agricultural education teachers in the sample; nevertheless, it was stated that personal and environmental conditions place teachers at risk for burnout.

Chenevey et al., 2008 studied agricultural education teachers in with a focus on the relationship between burnout and job satisfaction. The sample consisted of 388 agricultural education teachers in Ohio and the purpose of study was to describe occurrences of burnout and to determine at which levels burnout exists. Among other instruments for other variables, burnout was measured by the MBI-ES. The study found that in regard to burnout, teachers reported moderate emotional exhaustion, moderate depersonalization, and high personal accomplishment. It was concluded that the high levels of burnout on the personal accomplishment subscale can be attributed to the high demand of responsibility within the classroom, stressful interactions with stakeholders, low pay, and strict accountability factors. In regard to the relationship between demographic characteristics and burnout, the study found no significant correlations.

Kitchel et al., (2012) conducted a study to determine if relationships existed between social comparison, job satisfaction, and/or burnout in vocational education teachers. The sample consisted of 383 secondary agricultural education teachers in six states. The instrument used to measure burnout was the Maslach Burnout Inventory—Educators Survey. The results of this study were that agricultural education teachers in the sample experienced moderate emotional exhaustion, low depersonalization, and high personal accomplishment. The authors concluded
that the results of this study implied that professional development programs should develop uplifting programs that empower teachers emotionally.

**Teacher Burnout Studies**

Antoniou, Ploumpi, and Ntalla (2013) investigated the occupational stress, professional burnout, and coping strategies in primary (elementary) versus secondary (junior and senior high) education teachers in Greece. The sample of 388 teachers were given four surveys: the Teachers Occupational Stress measurement, the Stress Coping Strategies measurement, the Maslach Burnout Inventory-Educators Survey, and a demographic questionnaire. The study found that primary teachers were found to have higher levels of occupational stress (specifically women) than secondary teachers. In regard to burnout, emotional exhaustion was the only subscale shown to have a difference between primary and secondary teachers which was on the emotional exhaustion subscale. Women teachers reported higher levels of emotional exhaustion than secondary education teachers. The coping strategy measurement indicated that primary teachers used the avoidance approach more than men; although, in general women used more positive approaches to coping than men. The years of teaching results found that teachers between 11-15 years of teaching experienced the highest levels of emotional exhaustion and those with over 15 years of experience reported the lowest levels of emotional exhaustion. Lastly, multiple regression analyses found that teachers in primary schools experienced highest levels of emotional exhaustion and men reported lowest levels of personal accomplishment. Antoniou et al., (2013) concluded that coping strategies may be important variables in relation to levels of stress and burnout and that further research on the effective use of coping strategies could be beneficial to understanding and combating occupational stress and burnout.
Goswami (2013) investigated the relationship between job satisfaction and job burnout among secondary education teachers with regard to gender, age, and area of work. A sample of 300 teachers in rural and urban schools across a school district in India were given the Dixit Job Satisfaction Scale to measure job satisfaction and the Maslach Burnout Inventory-Educators Survey to measure burnout. The study found there was a significant relationship between age and area of work on the emotional exhaustion and depersonalization subscales, while age was a significant factor of personal accomplishment. More specifically, as age increased, emotional exhaustion increased and feelings of personal accomplishment decreased; and higher levels of emotional exhaustion and depersonalization was found in urban teachers than rural teachers. No significant relationships were found between the subscales and gender. Goswami (2013) concluded that burnout in teachers could be decreased with effective empirically based interventions that focus on stress management, relaxation, and individual skill improvement.

Kokkinos (2007) conducted a study to investigate the relationship between job stressors, personality, and burnout in primary (elementary) school teachers. A sample of 447 teachers were administered the Greek translation of the Maslach Burnout Inventory-Educators Survey, a Greek translation of the Big 5 Personality Traits survey, a 63-item researcher developed measurement to assess job stressors and a demographic questionnaire to report age, gender, education, years of experience, marital status, and administrative position. The study found that teachers with over 10 years of experience reported higher levels of emotional exhaustion, teachers with less than 10 years of experience reported low levels of personal accomplishment, and married female teachers experienced higher levels of emotional exhaustion than men. No significant findings were reported for the depersonalization subscale. This study also found that personality and job stressors were significant predictors of burnout. Kokkinos concluded that
teachers’ awareness of the burnout process and the implementation of opportunities to reflect and discuss with colleagues would aide in reducing the use of ineffective coping mechanisms.

Fejgin, Ephraty, and Ben-Sira (1995) investigated the work environment factors that contribute to burnout in physical education teachers in Israel. A sample of 267 teachers were given a demographic questionnaire, a researcher designed assessment of work conditions, and the Teacher Burnout Scale. The study found that the physical education teachers in the sample reported low levels of burnout; however, the measurement chosen for this study is not identical to the measurements used in most other burnout studies so the burnout distinctions did not readily convert. The study also found no significant correlations between any of the personal variables and burnout.

Another attempt to investigate the relationship between work environment and teachers was a study by Goddard, Obrien, and Goddard (2006). The purpose of the study was to investigate the burnout levels of beginning teachers specifically in relation to their perceptions of innovative work environments. A sample of 79 beginning teachers were administered the Work Environment Scale, the Maslach Burnout Inventory-Educators Survey and the Neuroticism subscale of the Eysenck Personality Questionnaire. The results indicated that the beginning teachers with less than two years of experience had high levels of emotional exhaustion, low personal accomplishment and no significant relationship to the depersonalization subscale. It was also found that the teachers that worked in an environment where innovative teaching was welcomed were less likely to experience burnout early in their career. Goddard et al. (2006) concluded that the ability to exercise creativity and autonomy in teaching (workplace innovation) is an important variable to consider when understanding burnout in new/beginning teachers.
Byrne (1991) took a more straightforward approach to burnout by investigating age, gender, marital status and type of students (vocational, regular, or special education) as demographic characteristics and their impact on primary, intermediate, secondary and university teacher burnout levels. A sample of 642 Canadian teachers were administered a demographic survey, the Maslach Burnout Inventory-Educators Survey, and one open ended question that prompted participants to reflect on their levels of stress. The results of the study indicated that for gender, women experienced higher levels of emotional exhaustion and reduced feelings of personal accomplishment, while men exhibited the highest levels of depersonalization. For age, the study found that younger teachers experienced higher levels of emotional exhaustion and lower levels of personal accomplishment. The authors explained this finding by stating that teachers earlier in their career are focused on establishing their reputation and furthering their education, which in comparison to their older and more established and educated colleagues, would explain their burnout levels. Lastly, type of student taught data found that vocational education teachers had lower levels of emotional exhaustion than their regular and special education counterparts which was explained by smaller class sizes and the idea that “society’s expectations for [vocational education] children are less demanding than they are for regular education students; this, in turn, may impose less pressure on their teachers” (Byrne, 1991, p. 206). It was also found that university teachers of graduate students reported higher levels of personal accomplishment than those of undergraduate students. It was concluded that the present educational policy surrounding teacher work environments needs to change, but not without first continuing to study burnout in teachers.

Abel and Sewell (1999) investigated stress and burnout in rural and urban secondary education school teachers in Georgia and North Carolina. A sample of 97 teachers responded to
the Sources of Stress Questionnaire and the Maslach Burnout Inventory-Educators Survey. The study found that there were no significant differences between rural and urban school teachers. Further analysis found that stress from poor working conditions and time pressures were predictors of burnout for rural teachers whereas pupil misbehavior and poor working conditions were the best predictors for urban school teachers. Abel and Sewell (1999) asserted that in order to most effectively achieve educational goals for students in the classroom, negative implications of stress and burnout must be addressed.

Fisher (2011), conducted a study to explore the relationship between years of teaching experience (novice vs. experienced) and the burnout, satisfaction, and stress levels of secondary education teachers. Using the Classroom of Appraisal Resources and Demands instrument to measure stress, the Preventative Resources Inventory to measure coping skills, and the Maslach Burnout Inventory—Educators Survey to measure burnout a sample of 400 secondary Advanced Placement teachers responded with their experiences. ANOVA statistics were used to find that burnout levels were significantly different between novice and experienced teachers, with novice teachers having higher burnout. There was no statistically significant difference in stress levels. Further tests in the study found that age and gender were not significant predictors of burnout. Fisher (2001) contends that there is a strong need of additional research into the burnout of teachers.

Antoniou, Polychroni, and Vlachakis (2006) conducted a study to investigate the relationship between gender and age differences in the occupational stress and burnout levels of primary and high school teachers in Greece. A sample of 493 teachers—43% men and 56% women, in total ranging in age from 25-65 years old—were given the Maslach Burnout Inventory-Educators Survey to measure burnout a researcher designed survey to measure
occupational stress. The results of the study were that women reported significantly higher levels of emotional exhaustion than men and younger teachers reported higher levels of emotional exhaustion and depersonalization than older teachers. In terms of stress, women reported higher levels of stress regardless of their level of school taught or their age. Antoniou et al., concluded that age is a vulnerable area for stress and burnout in teachers. Younger teachers early in their careers have high aspirations and work diligently to achieve their initial goals, but are not equipped with coping strategies to handle the stresses of teaching.

Evers, Tomic, and Brouwers (2004) took an interesting approach to studying teacher burnout and explored burnout in teachers from both the teacher and the student’s perspective based on occurrences of disruptive student classroom behavior and the teacher’s competence to cope with the behavior. In a sample of 411 students and 73 teachers at a regional training center in Netherlands, participants completed three surveys: the Maslach Burnout Inventory-Educators Survey, the Self-Efficacy Scale for Classroom Management and Discipline, and the Classroom Environment scale. Each of the measurements were translated to Dutch. Results of the study found that student perceptions of the burnout levels of their teachers were low emotional exhaustion, moderate depersonalization, and high personal accomplishment. However, teachers reported similar levels of emotional exhaustion, higher levels of depersonalization, and lower levels of personal accomplishment than the students meaning that students perceived their teachers to be closer to burnout than the teachers reported. Another significant finding in this report was that men reported significantly higher levels of emotional exhaustion than women. Evers et al., concluded that student perceptions of their teachers and learning environments should be given more attention in an attempt to help clarify and understand the field of education.
Descriptive Characteristics and Burnout

As the empirical studies on teacher burnout have progressed, demographic variables have been incorporated to observe differences. The idea is that there are unique individual characteristics possessed by teachers that have been found to be related to burnout (Maslach et al., 2001). The most commonly studied demographic characteristics included age, gender, education, and years of teaching experience.

**Age.** Age is a factor that has been correlated to burnout. Antoniou et al., (2006) and Byrne (1991) both found that younger teachers experience higher levels of emotional exhaustion. Croom (2003) found that as age increased, levels of depersonalization increased as well. Conversely, Antoniou et al., 2006 also reported that depersonalization was highest in younger teachers. Maslach et al., 2001 offer the explanation that these results should be analyzed with caution because those that burnout early in their career are more likely to quit thus leaving behind those that score lower levels of burnout.

**Gender.** Previous studies have shown that levels of burnout have been reported differently between men and women. Most studies reported that women have higher levels of emotional exhaustion (Antoniou et al., 2006; Antoniou et al., 2013), although one study of secondary teachers in the Netherlands found that emotional exhaustion was highest in men (Evers et al., 2004). Yet and still, two studies found no significant relationship between gender and levels of burnout (Croom, 2003; Goswami, 2013). An explanation to support the conflicting findings for the gender factor is that teaching is a predominately female industry so the overall average of respondents may have an impact on the scores (Maslach et al., 2001).

**Education.** The level of education a teacher has received is another factor that has been found to be related to burnout (Maslach & Jackson, 1981a). According to Schaufeli & Enzmann
(1998), early burnout studies indicated that high levels of education were more prone to burnout. Maslach et al., (1996) added that emotional exhaustion was highest in the least educated (bachelor’s degree) and most educated (doctorate) groups, and that personal accomplishment lowest in those with master’s degrees. Interestingly, education proved to be a less relevant factor in the literature reviewed for this study. In fact, education was found to be one of the variables that had no significant relationship in three studies (Chenevey et al., 2008; Croom, 2003; Fejgin et al., 1995).

**Years of Teaching Experience.** Previous studies have found a relationship between burnout and years of teaching experience. Kokkinos (2007) found that the more years of experience teachers had, the higher their levels of emotional exhaustion. Another study by Fisher (2011) found that teachers with less than five years of experience reported higher levels of burnout.

Other less common demographic characteristics that have been studied alongside burnout are marital status (Byrne, 1991; Chenevey et al., 2008; Fejgin et al., 1995), geographic region (Abel & Sewell, 1999; Goswami, 2013), and specialty (Fejgin et al., 1995). Interestingly, only one of the studies (Goddard et al., 2006) found any significant relationship between the variables and the levels of burnout.

Table 1 presents a summary of the burnout studies reviewed, the variables considered, and the findings related to burnout from each study.
Table 1

Review of Burnout Studies

<table>
<thead>
<tr>
<th>Authors</th>
<th>Date</th>
<th>Purpose</th>
<th>Burnout Measurement</th>
<th>Participants</th>
<th>Variables</th>
<th>Burnout Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abel, M., &amp; Sewell, J.</td>
<td>1999</td>
<td>Sources of stress and symptoms of burnout</td>
<td>MBI-ES</td>
<td>N=97 rural and urban secondary teachers (GA &amp; NC)</td>
<td>Area (rural or urban)</td>
<td>No significant differences obtained between rural and urban teachers</td>
</tr>
<tr>
<td>Antoniou, A., Ploumpi, A., &amp; Ntalla, M.</td>
<td>2013</td>
<td>Occupational stress, professional burnout and coping strategies</td>
<td>MBI-ES</td>
<td>n=388 Primary and secondary teachers (Greece)</td>
<td>Age Gender Years of Experience Education level</td>
<td>Female teachers=lower personal accomplishment and higher emotional exhaustion; High years of experience= high emotional exhaustion</td>
</tr>
<tr>
<td>Antoniou, A., Polychroni, F., &amp; Vlachakis, A.</td>
<td>2006</td>
<td>Gender and age relationship to burnout</td>
<td>MBI-ES</td>
<td>n=493 primary and secondary teachers (Greece)</td>
<td>Age Gender</td>
<td>Women=high emotional exhaustion; Younger teachers=high emotional exhaustion and depersonalization</td>
</tr>
<tr>
<td>Byrne, B.</td>
<td>1991</td>
<td>Impact of background variables on subscales of burnout</td>
<td>MBI-ES</td>
<td>n=642 elementary, middle, secondary, and university teachers (Canada)</td>
<td>Gender Age Marital status Family status Type of students</td>
<td>Females=high emotional exhaustion; Younger teachers=high emotional exhaustion; secondary teachers=reduced personal accomplishment</td>
</tr>
<tr>
<td>Chenevey, J., Ewing, J., &amp; Whittington, M.</td>
<td>2008</td>
<td>Burnout levels of agriculture teachers</td>
<td>MBI-ES</td>
<td>n=388 Agriculture teachers (Ohio)</td>
<td>Age Gender Marital status Number of children Years in current position</td>
<td>Overall moderate levels of burnout; No significant relationships between demographic characteristics and burnout.</td>
</tr>
<tr>
<td>Croom, D.</td>
<td>2003</td>
<td>Burnout levels of agriculture teachers</td>
<td>MBI-ES</td>
<td>n=164 Agriculture teachers (3 southeastern states)</td>
<td>Gender Education level Teacher preparation Contract length</td>
<td>Relationship between age and years of teaching experience with depersonalization; No significant relationship between other variables</td>
</tr>
</tbody>
</table>
Table 1

*Review of Burnout Studies* (continued)

<table>
<thead>
<tr>
<th>Authors</th>
<th>Date</th>
<th>Purpose</th>
<th>Burnout Measurement</th>
<th>Participants</th>
<th>Variables</th>
<th>Burnout Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evers. W., Tomic, W., &amp; Brouwers, A.</td>
<td>2004</td>
<td>Student and teacher perceptions of teacher burnout</td>
<td>MBI-ES (Dutch translation)</td>
<td>n=411 students and n=73 secondary teachers (Netherlands)</td>
<td>Age, Teaching Experience, Number of students, Teaching load</td>
<td>Male teachers=high emotional exhaustion; Students perception of teacher burnout levels on depersonalization higher and personal accomplishment lower than their teachers reported.</td>
</tr>
<tr>
<td>Fejgin, N., Ephraty, N., &amp; Ben-Sira, D.</td>
<td>1995</td>
<td>Work environment factors related to burnout in physical education teachers</td>
<td>Teacher Burnout Scale</td>
<td>n=267 secondary physical education teachers (Israel)</td>
<td>Gender, Age, Marital Status, Education, Occupational status, Administrative duties</td>
<td>No significant relationship between personal variables and burnout</td>
</tr>
<tr>
<td>Fisher, M.</td>
<td>2011</td>
<td>Variables that contribute to stress, burnout, satisfaction, and retention of secondary teachers.</td>
<td>MBI-ES</td>
<td>n=140 Secondary Advanced placement teachers</td>
<td>Burnout, Stress, Self-Acceptance, Job Satisfaction</td>
<td>Years of experience is not a predictor of burnout; Novice teachers demonstrate higher burnout</td>
</tr>
<tr>
<td>Goddard, R., O’Brien, P., &amp; Goddard, M.</td>
<td>2006</td>
<td>Relationship between innovative work environments and beginning teacher burnout</td>
<td>MBI-ES</td>
<td>n=79 Beginning teachers—less than two years of experience (Australia)</td>
<td>Work climate, Months of experience</td>
<td>Beginning teachers=high emotional exhaustion and low personal accomplishment; Innovative work environment=low burnout levels</td>
</tr>
<tr>
<td>Goswami, M.</td>
<td>2013</td>
<td>Teachers’ burnout in relation to different aspects of job satisfaction</td>
<td>MBI-ES</td>
<td>N=300 secondary teachers in rural and urban areas (India)</td>
<td>Age, Gender, Area (rural or urban)</td>
<td>Significant relationship between age and area of work place; gender=not significant to burnout</td>
</tr>
</tbody>
</table>
Table 1

*Review of Burnout Studies* (continued)

<table>
<thead>
<tr>
<th>Authors</th>
<th>Date</th>
<th>Purpose</th>
<th>Measurement</th>
<th>Participants</th>
<th>Variables</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kokkinos, C.</td>
<td>2007</td>
<td>Relationship between burnout, personality characteristics, and job stressors</td>
<td>MBI-ES (Greek translation)</td>
<td>n=447 Primary school teachers (Greece)</td>
<td>Gender, Age, Education level, Years of experience, Marital status, Administrative status</td>
<td>High years of experience=high emotional exhaustion; Married female teachers=high emotional exhaustion; No significant relationship for depersonalization and personal accomplishment</td>
</tr>
</tbody>
</table>

The Antithesis of Burnout

In the early years, the trend in burnout research mirrored that of psychology in that the focus was on negative states as opposed to positive ones (Deiner, Suh, Lucas & Smith, 1999). In recent years, as psychology has shifted to a study of human strengths and optimal functioning, burnout researchers have made an effort to expand the burnout construct into a positive direction as well (Maslach, Schaufeli, & Leiter, 2001). The expansion of the burnout concept is now seeking to understand job engagement as the antithesis of burnout.

Job engagement is characterized by energy, involvement, and efficacy. Ideally, when burnout is counteracted with engagement, exhaustion is replaced with enthusiasm, bitterness with compassion, and anxiety with efficacy (Leiter & Maslach, 2005). Job engagement is assessed by the opposite pattern of scores on the three Maslach Burnout Inventory dimensions as to yield new perspectives on interventions to alleviate burnout (Maslach, Schaufeli, & Leiter, 2001).
CHAPTER 3

METHOD

Purpose of Study

The purpose of this survey study was to examine the influence of selected descriptive characteristics on measures of the three subscales of burnout—emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al., 1986)—in vocational education teachers. Descriptive characteristics will include age, gender, education, and years of teaching experience. Burnout is defined as a “psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity” (Maslach & Schaufeli, 1993, p. 2).

Research Questions

1. What is the level of emotional exhaustion, depersonalization, and personal accomplishment in vocational education teachers?
2. What are the relationships between emotional exhaustion, depersonalization, and personal accomplishment and the descriptive characteristics of age, gender, education, and years of teaching experience?

Design

This study used a survey research design to gather data that examined the burnout phenomenon in vocational education teachers. The survey research method is arguably the most prevalent in education research for theses and dissertations (Hill, 2001). A survey is a data collection and measurement process that gathers information from or about people to describe,
compare, or explain their knowledge, attitudes, and behavior (Fink, 2009; Fowler, 2014). Best utilized to describe a population too large to measure individually, a survey is an organized way of getting a consistent format of answers to a set of questions (Sapsford, 1999). Hill (2001) suggested that three considerations should be made to determine if survey research is appropriate for a study: (a) large sample size, (b) ability to clearly and concisely express questionnaire content, and (c) accessibility and willingness of potential respondents (Hill, 2001). Based on the study’s ability to meet the aforementioned criteria, the survey research design is deemed appropriate. Surveys can be categorized as cross-sectional or longitudinal. Cross-sectional surveys collect data at one point in time from a predetermined population. Longitudinal surveys collect data from a select group of respondents repeatedly over time to study changes (Fraenkel & Wallen, 2009). A cross-sectional design was used because of its effectiveness in describing a population at a given period of time and its ability to provide time efficient data. Cross-sectional surveys can be administered via mail, telephone, online, and face-to-face.

Advantages and disadvantages apply to every type of research design and survey research is no different. According to Alreck and Settle (2004), the advantages of surveys in general are their flexibility and versatility in their ability to collect data using various methods and to ask questions that have various degrees of complexity; specialization in their ability to be customized to fit the needs and budgets of the researcher and efficiency due to the ability to capture and organize large (or small) quantities of information in short amounts of time. The disadvantages of survey research are respondents’ perceived threat by answering questions, the sensitivity of the questions being asked (e.g., sexual behavior or drug abuse), cost, and error (Alreck & Settle, 2004). The cost of surveys, although minimal, is still applicable (Fraenkel & Wallen, 2009). Furthermore, error, via mistakes and/or oversights, cannot be completely avoided.
Face-to-face survey research, the chosen method for this study, has specific advantages and disadvantages, as well. Face-to-face surveys, where the participants are physically present with the researcher, require an individual to deliver, question, collect, and code results (Fowler, 2014). Nevertheless, unlike other methods of data collection, face-to-face surveys allow respondents and interviewers to be in close proximity, which permits visual communication (Alreck & Settle, 2004; Blair, Czaja, & Blair, 2014). Furthermore, nonresponse and the speed of the response are more efficient than other survey methods (Fowler, 2014).

**Participants**

The target, albeit abstract, population for this study is all vocational education teachers in the United States. Needless to say, access to this target population is not feasible, so an attainable sample was used. Probability sampling, also referred to as random sampling, uses an indiscriminate process of selection to give each person in the population a known chance of selection (Blair et al., 2014). Reliant on chance, a random sample will naturally allow results to be representative of the target population. However, a random sample cannot be easily obtained in my study. As a result, a convenience sample will be used. Convenience sampling is used when a researcher studies whichever population members are available based on the researcher’s judgment and purpose of the study (Blair et al., 2014; Rubin & Babbie, 2013). Convenience sampling requires less effort and time than other methods (Sue & Ritter, 2007), but the risk of bias is increased when compared to other methods (Rubin & Babbie, 2013). The convenience sample will be vocational education teachers in a large urban school system in the metropolitan Atlanta area. The vocational education department in the school system (referred to as the CTAE department) is comprised of over 10 programs, over 60 teachers and over 5,000 students enrolled. The convenience sample is representative of the target population because the teachers
in the sample are all vocational education teachers that represent over half of the possible types of vocational education programs offered in the United States and there is no evidence that the experiences of these teachers is drastically unlike that of others in similar positions. The aforementioned stresses that plague vocational education teachers (e.g. ever-changing curriculum, funding for resources, scheduling of students, etc.) are applicable to vocational education programs across the country, to include those in the sample for this study. Nevertheless, because the sample is one of convenience, results cannot be generalized.

Upon written consent from the CTAE Director for the school system, the survey was added to the agenda at one of the mandatory professional development meetings held by the CTAE office. As a mandatory professional development meeting, all teachers are required to attend, although all teachers will have the option to participate in or opt out of the study.

**Instrumentation**

The survey instrument for this study is the Maslach Burnout Inventory—Educators Survey (MBI-ES). The MBI-ES was developed by Maslach, Jackson, and Schwab in 1986 as the second of three versions of the Maslach Burnout Inventory. The MBI-ES is an exact replica of the original inventory (Maslach Burnout Inventory—Human Services Survey) with the exception of a few word changes to adapt the questions specifically to educators. Both versions were created to measure the burnout experienced by individuals employed in human service and helping professions and is cited as the most widely used burnout measurement (Enzmann et al., 1998; Schaufeli et al., 1993; Schaufeli et al., 2001). The MBI-ES is a 22-item instrument that defines and measures burnout as a three-dimensional syndrome characterized by emotional exhaustion—feelings of being emotionally exhausted by work (Maslach & Jackson, 1981b), depersonalization—an attempt to put a distance between oneself and service recipients by
ignoring the qualities that make them unique and engaging, and reduced personal accomplishment—a decline in one’s feelings of competence and successful achievement of one’s work. In addition to the MBI-ES, demographic questions will include age, gender, education, and years of teaching experience.

Each of the questions on the MBI-ES is scored on a scale from 0 to express no experience at all, to 1-6 to express increased likeliness of presence/experience of burnout symptoms. Of the 22 items on the questionnaire, 9 assess emotional exhaustion, 5 assess depersonalization, and 8 questions assess personal accomplishment. The MBI-ES does not provide one composite score for assessing burnout. Instead, each of the 22 items is scored according to the key provided and a score of each of the three subscales can be calculated. Subscale scores allow the researchers to determine each participant’s propensity to display one or more factors of burnout. The scoring key has cutoff points for each subscales and allows for each score to be coded as low, moderate, or high (see Table 2). Although these values are continuous, the final results are categorical. For emotional exhaustion, low scores are 0-16, moderate scores are 17-26 and high scores are 27 and over. For depersonalization, scores of 0-6 are low, 7-12 are moderate and scores of 13 and over are considered high. Since a low level of personal accomplishment is associated with burnout, the items are scored in the opposite direction of the other two subscales. Therefore, low scores for personal accomplishment are 39 and over, moderate scores are 32-38 and high scores are 0-31 (Maslach et al., 1996). These codes are primarily intended for feedback to individual respondents to be “compared to the overall norm, and to obtain a rough assessment of the degree of his or her experience with the various aspects of burnout” (Maslach et al., 1996, p. 9).
Table 2

*Data Collection Instruments, Score Ranges, and Indicators*

<table>
<thead>
<tr>
<th>Construct</th>
<th>Instrument</th>
<th>Description</th>
<th>Range</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional exhaustion</td>
<td>Maslach Burnout Inventory—Educators Survey</td>
<td>Feelings of being exhausted or emotionally spent from work</td>
<td>0-16 low</td>
<td>High score= high burnout</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17-26 moderate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>27+ high</td>
<td></td>
</tr>
<tr>
<td>Depersonalization</td>
<td>Maslach Burnout Inventory—Educators Survey</td>
<td>An unfeeling and personal response towards recipients of one’s care or service</td>
<td>0-6 low</td>
<td>High score= high burnout</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7-12 moderate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13+ high</td>
<td></td>
</tr>
<tr>
<td>Personal accomplishment</td>
<td>Maslach Burnout Inventory—Educators Survey</td>
<td>Negative self-evaluation and general feeling of not being happy with the teaching profession</td>
<td>39+ low</td>
<td>High score= low burnout</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>32-38 moderate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0-31 high</td>
<td></td>
</tr>
<tr>
<td>Demographics</td>
<td>Demographic questionnaire</td>
<td>Descriptive characteristics of teachers</td>
<td>Age</td>
<td>Descriptive</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Years of teaching experience</td>
<td></td>
</tr>
</tbody>
</table>

**Validity and Reliability**

Cronbach alpha was calculated for the MBI-ES instrument to determine inter-item reliability. The Cronbach alpha is the most appropriate indicator because the MBI-ES exclusively utilizes Likert scales (Gloeckner, Gliner, Tochterman, & Morgan, 2001). The Maslach Burnout Inventory manual (Maslach et al., 1996) cites two factor analytic studies that were conducted to substantiate the validity and reliability of the MBI-ES. One study was conducted on 469 Massachusetts teachers by Iwanicki and Schwab (1981) and the other on 462 California teachers by Gold (1984). Each study reported Cronbach’s alpha estimates of .90 and .88 for emotional exhaustion, .76 and .74 for depersonalization, and .76 and .72 for personal accomplishment, respectively. Although not optimal, the aforementioned scores verify that the baseline criteria for generally accepted Cronbach’s alpha estimates (.70) have been met to justify
inter-item reliability (Daniel & Witta, 1997).

While the validity and reliability of the MBI-ES have been supported by previous studies (Gold, 1984; Iwanicki & Schwab 1981; Schaufeli et al., 1993), Hill (2001) recommended that validity and reliability be established for each new administration of an existing measurement. Furthermore, Creswell (2014), insisted that regardless of the source of the instrument, the content and construct validity be checked. For this study, the Cronbach alpha score for the emotional exhaustion subscale was high (.91), while the reliability value of depersonalization was .62, and the reliability of the final burnout variable, personal accomplishment, was .66. Although the values obtained for the depersonalization and personal accomplishment subscales were not optimal, they are similar to values obtained in studies of Massachusetts (Iwanicki & Schwab, 1981) and California (Gold, 1984) teachers and they meet the acceptability requirement for reliability and validity (Gloeckner et al., 2001). Table 2 outlines the instrument’s descriptions, score ranges, and score indicators for each construct.

Procedure

This study was conducted with vocational education teachers in a large urban school system in the metropolitan Atlanta area. Permission to conduct this study was obtained by the Institutional Review Board (IRB) at the University of Georgia and the Department of External Research for the school district. Upon IRB and school district approval, the surveys were conducted during a mandated professional development meeting for the CTAE department, as permitted by the district’s CTAE Director.

Data collection was conducted in December 2015. The process began with each teacher receiving a copy of the consent form (see Appendix A). I then read the script (see Appendix B) to introduce the study. Participants were advised that completion of the survey would serve as
consent to participate and to retain the consent form for their records. To support anonymity and confidentiality of responses, participants were only asked to provide minimal identifying information and participants were asked to submit their documents in the secured box at the exit of the room at the completion of both the MBI-ES instrument and the demographic questionnaire. Once the survey period ended, data from both surveys was entered into a Statistical Package for Social Sciences (SPSS) file for analysis.

**Data Analysis**

A descriptive statistical analysis was used to examine the influence of selected descriptive characteristics on each of the three subscales of the burnout construct. The characteristics included age, gender, education, and years of teaching experience. The burnout construct was measured by assessing the emotional exhaustion, depersonalization, and reduced personal accomplishment via the Maslach Burnout Inventory—Educators Survey.

A multiple correlation analysis (Huberty & Petoskey, 1999) was deemed the best approach to examine the relationships between the demographic characteristics and the subscales of burnout. A multiple correlation analysis (MCA) is used to (a) calculate the strength of relationships, (b) conduct a statistical test of the strength of these relationships, (c) interpret the relationship between a criterion variable and what is represented by collection of the predictor variables, and (d) determine the relative contribution of predictor variables to the relationship (Huberty & Petoskey, 1999). In an MCA, it is important to understand how the dependent variable is related to the construct defined by the linear composite of independent variables. Upon completing the pre-analysis and data inspection phases, the following steps were conducted based on recommendation by Huberty and Hussein (2001) to complete the correlation analyses:
1. Examination of the simple correlations between each of the independent variables and the definition of the construct defined by the composite

2. Estimation of the population product moment correlation, \( \rho^2 \), based on \( R^2 \) adjusted, not \( R^2 \), to reduce bias in estimation

3. Comparison of the absolute values or squares of the structure \( r \)'s to determine the relative contribution of the predictor variables to the definition of the constructs represented in this study

4. Analysis of the effect size by interpreting results using an effect size value to see if results obtained are of better than chance value

5. Ordering of the variables to determine the relative contribution of the predictor variables to the criterion variable

For this study, demographics were used to understand their relationship with the burnout levels in vocational education teachers. The dependent variables were each of the three subscales of burnout and were measured continuously by the Maslach Burnout Inventory—Educators Survey. Independent variables will included age, gender, education, and years of teaching experience. Table 3 outlines the independent and dependent variables and how each research question was analyzed. SPSS version 23 software was used to conduct each of the statistical procedures outlined in Table 3.
Table 3

Analysis for Research Questions

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Independent Variables</th>
<th>Dependent Variable</th>
<th>Statistical Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the level of emotional exhaustion, depersonalization, and personal accomplishment in vocational education teachers?</td>
<td></td>
<td>Burnout subscales (emotional exhaustion, depersonalization, and personal accomplishment) score</td>
<td>Descriptive statistics (mean, standard deviation, sample distribution)</td>
</tr>
<tr>
<td>2. What are the relationships between emotional exhaustion, depersonalization, and personal accomplishment and the descriptive characteristics of age, gender, education, and years of teaching experience?</td>
<td>Age (continuous)</td>
<td>Burnout subscales (emotional exhaustion, depersonalization, and personal accomplishment) score</td>
<td>Pearson correlation matrix, multiple correlation analysis</td>
</tr>
<tr>
<td></td>
<td>Gender (categorical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women=0-Men=1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Education level (categorical)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bachelors=1-Masters=2-Specialist=3-Doctorate=4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Years of experience (continuous)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. All descriptive variables were used for each research question.
CHAPTER 4

RESULTS

This chapter presents findings of research that examined the relationships between selected descriptive characteristics and three dimensions of burnout (emotional exhaustion, depersonalization, and reduced personal accomplishment, Maslach et al., 1986) in vocational education teachers. After restating the purpose of the study, descriptive statistics are presented. Results of multiple correlation analyses (Huberty & Hussein, 2001) are also presented.

Purpose of the Study

The purpose of this study was to explore the relationship between age, gender, education, and years of teaching experience on three distinct aspects of burnout—emotional exhaustion, depersonalization, and reduced personal accomplishment—in vocational education teachers. Survey research design was used to gather data from vocational education teachers in a large urban school district in the metropolitan Atlanta area. Burnout was measured using the Maslach Burnout Inventory-Educators Survey (Maslach et al., 1986). The purpose of the study was to address the following research questions:

1. What is the level of emotional exhaustion, depersonalization, and personal accomplishment in vocational education teachers?
2. What are the relationships between emotional exhaustion, depersonalization, and personal accomplishment and the descriptive characteristics of age, gender, education, and years of teaching experience?
Analysis of Research Questions

The Maslach Burnout Inventory—Educators Survey (MBI-ES; Maslach et al., 1986) and a demographic questionnaire were administered to vocational teachers in a large urban school district in Atlanta, Georgia. Participants completed the surveys at the start of a district-wide department meeting in December of 2015. A total of 71 teachers returned a completed survey for a response rate of 94.5%. However, two surveys were rendered invalid because respondents failed to provide answers to the demographic questionnaires resulting in a final data pool of 69 teachers. Table 4 summarizes the specific characteristics of the sample. The sample consisted of mostly women, with over 75% holding a graduate degree. The average age of respondents was 46 years old with an average of 15 years of teaching experience.

Table 4

<table>
<thead>
<tr>
<th>Characteristics of the Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic</td>
</tr>
<tr>
<td>Age (range 30–70 years)</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Women</td>
</tr>
<tr>
<td>Men</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Bachelors</td>
</tr>
<tr>
<td>Master’s</td>
</tr>
<tr>
<td>Specialist</td>
</tr>
<tr>
<td>Doctorate or professional</td>
</tr>
<tr>
<td>Years of teaching experience (range 0–45 years)</td>
</tr>
</tbody>
</table>

Note. a Percent of sample (n=69)

Research Question One

What is the level of emotional exhaustion, depersonalization, and personal accomplishment in vocational education teachers?
High levels of emotional exhaustion and depersonalization and low levels of personal accomplishment indicate burnout (Maslach et al., 1996). Mean scores for my sample indicated that emotional exhaustion was moderate, depersonalization was low, and personal accomplishment was high. Descriptive data for my sample on the three burnout subscales are presented in Table 5. Burnout on the MBI-ES is conceptualized as a continuous variable, describing low to high degrees of experienced feeling. The scoring key for the Maslach burnout scales has cutoff points for each of the subscales and allows each score to be coded as low, moderate, or high; the upper third of the normative distribution is considered high, moderate scores are in the middle third, and low scores are in the lower third (Maslach et al., 1996). Table 6 displays the frequency of intensity of teachers’ expressed levels of burnout for each of the three burnout subscales. Although more than 40% of respondents reported high emotional exhaustion, more than 60% reported low depersonalization (64%) and high personal accomplishment (61%).

Table 5

<table>
<thead>
<tr>
<th></th>
<th>Possible score</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional exhaustion</td>
<td>0–56</td>
<td>0</td>
<td>49</td>
<td>24.38</td>
<td>12.89</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>0–30</td>
<td>0</td>
<td>21</td>
<td>6.94</td>
<td>5.47</td>
</tr>
<tr>
<td>Personal accomplishment</td>
<td>0–48</td>
<td>21</td>
<td>48</td>
<td>37.58</td>
<td>6.54</td>
</tr>
</tbody>
</table>

Burnout Level of Vocational Education Teachers
Table 6

**MBI-ES Subscale Scores of sample of Vocational Education Teachers**

<table>
<thead>
<tr>
<th>Subscale/Category</th>
<th>$n$</th>
<th>%$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional exhaustion*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>19</td>
<td>27.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>20</td>
<td>29.0</td>
</tr>
<tr>
<td>High</td>
<td>30</td>
<td>43.5</td>
</tr>
<tr>
<td>Depersonalization**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>44</td>
<td>63.8</td>
</tr>
<tr>
<td>Moderate</td>
<td>15</td>
<td>21.7</td>
</tr>
<tr>
<td>High</td>
<td>10</td>
<td>14.5</td>
</tr>
<tr>
<td>Personal accomplishment***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>19</td>
<td>27.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>42</td>
<td>60.9</td>
</tr>
<tr>
<td>High</td>
<td>8</td>
<td>11.6</td>
</tr>
</tbody>
</table>

*Percent of sample (n=69); *low=0-16, moderate=17-26, high=27+; **low=0-6, moderate=7-12, high=13+; ***low=39+, moderate=32-38, high=0-31.

**Research Question Two**

What are the relationships between emotional exhaustion, depersonalization, and personal accomplishment and the descriptive characteristics of age, gender, education, and years of teaching experience?

To determine the relationships between each of the burnout subscales and selected descriptive characteristics, multiple correlation analyses (MCA, Huberty & Petoskey, 1999) were conducted. The purpose of multiple correlation analysis is to investigate the relationship of a dependent variable with a combination of independent variables. An MCA is used to (a) calculate the strength of relationships, (b) conduct a statistical test of the strength of the relationship, (c) interpret the relationship between a criterion variable and what is represented by a collection of predictor variables, and (d) determine the relative contribution of predictor variables to the relationship (Huberty & Petoskey, 1999).


**Reliability of Instrument.** Reliability of the burnout variables was examined using Cronbach’s alpha coefficient (see Table 7). Lee and Ashforth (1996) analyzed 47 studies using the MBI and computed overall reliability coefficients for each subscale; .86 for emotional exhaustion, .76 for depersonalization, and .77 for personal accomplishment. For this study, reliability of the emotional exhaustion subscale was acceptable (.91), but the reliability of the depersonalization (.62) and personal accomplishment subscales (.66) were relatively low. Although reliability values for the personal accomplishment and depersonalization subscales were not optimal, according to Gloeckner et al. (2001) reliability values above .60 yield acceptable support for the reliability of scores. Values attained in this study are similar to the reliability values obtained in studies of Massachusetts teachers (Iwanicki & Schwab, 1981), California teachers (Gold, 1984), and meta-analytic examination of various teachers (Lee & Ashforth, 1996).


Table 7

**Reliability of MBI-ES Subscales Comparison Between Current and Past Studies**

<table>
<thead>
<tr>
<th>Subscale</th>
<th># Items (n)</th>
<th>Cronbach alpha coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional exhaustion</td>
<td>9</td>
<td>.91</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>5</td>
<td>.62</td>
</tr>
<tr>
<td>Personal accomplishment</td>
<td>8</td>
<td>.66</td>
</tr>
</tbody>
</table>

**Data Analysis.** Education was a categorical variable, with the lowest value (1) assigned to a bachelor’s degree, 2=master’s degree, 3=specialist degree, and 4=professional or doctoral degree. Age and years of experience were continuous variables. Gender was a dichotomous
variable that was coded 0 for women and 1 for men. The survey instrument was scaled based on a Likert scale ranging from 0 (never) to 6 (every day).

No missing data were found among the 69 cases in the study. The dependent variables of burnout (emotional exhaustion, depersonalization, and personal accomplishment) were examined to determine if heteroscedasticity and multicollinearity were present, relationships between independent and dependent variables were linear, and residuals of each dependent variable were normally distributed. SPSS multiple regression syntax was used to test these assumptions (see results in Table 8). The Durbin-Watson statistic is used to detect homoscedasticity, the non-constant standard deviation of a variable over time. Values above 1 indicate that residuals are independent (Tabachnick & Fidell, 1996). All values obtained in this analysis were above 1; therefore, heteroscedasticity was present. To determine if independent variables were correlated, the variance inflation factors (VIFs) should be lower than 10 (Meyers, 1990). In this study, VIF scores ranged from 1.06–2.02, indicating that multicollinearity, two or more predictor variables highly/moderately correlated, was present.

Table 8

Measures Used to Check Assumptions of Multiple Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>Durbin-Watson</th>
<th>VIF</th>
<th>Mahalanobis distance (maximum value)</th>
<th>Cook’s distance (maximum value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional exhaustion</td>
<td>1.93</td>
<td>1.06–2.02</td>
<td>9.51</td>
<td>.07</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>2.10</td>
<td>1.06–2.02</td>
<td>9.51</td>
<td>.09</td>
</tr>
<tr>
<td>Personal accomplishment</td>
<td>2.36</td>
<td>1.06–2.02</td>
<td>9.51</td>
<td>.11</td>
</tr>
</tbody>
</table>

Cases with $\chi^2$ values greater than 18.47 (for four independent variables evaluated at $p < .01$) indicate outliers (Tabachnick & Fidell, 1996). However, the maximum values in the analysis
were 9.51, indicating that no outliers existed in my data set. Cook’s distance indicates how much regression coefficients would change if a particular case was removed; values greater than 1 should be examined because they may be too influential (Tabachnick & Fidell, 1996). Values in Table 8 indicate all Cook’s distance values were less than 1.

Figures 1-3 represent p-plots for the emotional exhaustion, depersonalization, and personal accomplishment subscales, respectively, in a linear relationship. An assumption of equal variance is indicated by the scatterplot of emotional exhaustion data in Figure 4, depersonalization data in Figure 5, and personal accomplishment data in Figure 6. The pattern in each scatterplot indicates that the data was spread throughout and the residuals are normally distributed. Based on these analyses, the data met the assumptions of the multiple correlation analysis.

Figure 1. Normal P-P plot of regression standardized residual for emotional exhaustion.
Figure 2. Normal P-P plot of regression standardized residual for depersonalization.

Figure 3. Normal P-P plot of regression standardized residual for personal accomplishment.
Figure 4. Scatterplot of scores for emotional exhaustion.

Figure 5. Scatterplot of scores for depersonalization.
Multiple Correlation Analysis. The purpose for using multiple correlation analysis in my study was to investigate the relationship of dependent variables (i.e., three separate burnout subscales) to a combination of independent variables (i.e., age, gender, education, and years of teaching experience). Descriptive statistics for the dataset are presented in Table 9. Correlations between independent and dependent variables are presented in Table 10. This information provides a picture of the distribution of each variable and each variable’s relationship to the other variables in the dataset.
Table 9

Component Descriptors

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Q₁</th>
<th>Q₂</th>
<th>Q₃</th>
<th>Max</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>30</td>
<td>38.0</td>
<td>46.0</td>
<td>53.5</td>
<td>70</td>
<td>9.59</td>
</tr>
<tr>
<td>Gender</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.0</td>
<td>1</td>
<td>0.50</td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
<td>3.0</td>
<td>4</td>
<td>0.98</td>
</tr>
<tr>
<td>Years of teaching experience</td>
<td>0</td>
<td>6.5</td>
<td>11.0</td>
<td>22.5</td>
<td>45</td>
<td>10.89</td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td>0</td>
<td>15.5</td>
<td>24.0</td>
<td>25.5</td>
<td>49</td>
<td>12.89</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>0</td>
<td>2.0</td>
<td>7.0</td>
<td>11.0</td>
<td>21</td>
<td>5.47</td>
</tr>
<tr>
<td>Personal accomplishment</td>
<td>21</td>
<td>33.5</td>
<td>38.0</td>
<td>43.0</td>
<td>48</td>
<td>6.54</td>
</tr>
</tbody>
</table>

Note. Q₁, Q₂, and Q₃ are the three points (quartiles) at which each variable is divided into four groups.

Table 10

Correlation Matrix for Burnout Subscales

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Education</th>
<th>Age</th>
<th>Exp.</th>
<th>EE</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-.107</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.216</td>
<td>.297*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of teaching experience</td>
<td>-.209</td>
<td>.298*</td>
<td>.701**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td>.077</td>
<td>-.012</td>
<td>.000</td>
<td>.057</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal accomplishment</td>
<td>.059</td>
<td>-.034</td>
<td>-.227</td>
<td>-.203</td>
<td>-.161</td>
<td></td>
</tr>
<tr>
<td>Depersonalization</td>
<td>.021</td>
<td>.078</td>
<td>.022</td>
<td>.033</td>
<td>.624**</td>
<td>-.091</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; EE=emotional exhaustion; PA= personal accomplishment

Next, three separate multiple correlation analyses were conducted to examine correlations between selected independent variables and the three dependent variables representing burnout (Huberty & Hussein, 2001). Separate analyses were conducted to determine if the obtained percent of shared variance for each burnout scale was greater than what could be expected by
chance and because of the presence of multicollinearity. Table 11 describes the correlations between each burnout scale (dependent variable) and the descriptive characteristics of the sample (independent variables). The values in Table 11 indicate that the relationship between each burnout scale and descriptive characteristics was no greater than what was expected by chance—low and not statistically significant. The effect size index, as described by Huberty and Hussein (2001), has no standard cutoffs to define low or high values. Therefore, judgment should be used during the interpretation phase of the multiple correlation analysis.

Table 11

*Relationships between Variables in Research Questions*

<table>
<thead>
<tr>
<th></th>
<th>$R^2$</th>
<th>$R^2_{adj}$</th>
<th>$F$</th>
<th>$p$</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional exhaustion</td>
<td>.016</td>
<td>-.046</td>
<td>.252</td>
<td>.907</td>
<td>.104</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>.003</td>
<td>-.059</td>
<td>.046</td>
<td>.996</td>
<td>.118</td>
</tr>
<tr>
<td>Personal accomplishment</td>
<td>.062</td>
<td>.003</td>
<td>1.056</td>
<td>.386</td>
<td>.056</td>
</tr>
</tbody>
</table>

When initial results of the MCA are statistically significant, two additional steps are conducted. The next step would be to determine the underlying construct(s) that significant predictors represent when applied to each dependent variable by calculating and comparing the structure r’s of independent variables (Huberty & Hussein, 2001). This step specifies the importance of each descriptive characteristic to the dependent variable. The final step would be ordering variables to determine the relative contribution of each predictor variable (descriptive characteristics) to each burnout subscale (Huberty & Hussein, 2001). The result of this final step would indicate which descriptive characteristics were the most important to explaining the relationship identified for each burnout subscale. However, since results of each multiple correlation analysis were not statistically significant, the last two steps were not warranted.
CONCLUSIONS AND RECOMMENDATIONS

This chapter provides a summary of the study and a discussion of major findings. A discussion of limitations and recommendations for further research on the burnout of vocational education teachers is also provided.

Purpose of Study

The purpose of this study was to examine the influence of selected descriptive characteristics on measures of the three subscales of burnout—emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach et al., 1986)—in vocational education teachers. Descriptive characteristics included age, gender, education, and years of teaching experience. Findings from this study may contribute to the emergent body of research on burnout in vocational education teachers by providing insight into the relationship between descriptive characteristics and levels of burnout. The study was guided by the following research questions:

1. What is the level of emotional exhaustion, depersonalization, and reduced personal accomplishment in vocational education teachers?
2. What are the relationships between emotional exhaustion, depersonalization, and reduced personal accomplishment and the descriptive characteristics of age, gender, education, and years of teaching experience?
Summary of Research Study

Teaching is the second largest occupation in the United States yet qualified teachers enter and then exit unhappy after a few years (Darling-Hammond, 2015; Rinke, 2014). The National Commission on Teaching and America’s Future (Carroll & Foster, 2010) reported that 46% of all new teachers leave the profession within five years and researchers have identified burnout as one of the primary causes for the exodus from teaching (Buchanan, Prescott, Schuck, Aubusson, & Burke, 2013; Haberman, 2005; Karsenti & Collin, 2013; Scott-Williams, 2011; Tippens, Ricketts, Morgan, Navarro, & Flanders, 2013).

Burnout in teachers is worthy of research because the nature of the profession is contingent upon the mental and intellectual capacity of the individual; teachers rely on their creativity, content knowledge, and overall intellect on a daily basis. Burnout has been known to have an impact on the health, relationships, and self-esteem of teachers, subsequently causing their quality of work to decrease and their efficacy to decline (Brock & Grady, 2000). Although, while there is substantial research on burnout and the field of education, research on the relationship between burnout and vocational education teachers is limited. Primarily reliant on federal funding, the demands, expectations, and accountability of vocational education programs and teachers are consistently under scrutiny. As a result, more research on vocational education, its teachers, and its programs have become progressively warranted. If programs are unable to demonstrate adequacy, prove effectiveness, meet performance expectations, and achieve overall success—all of which are threatened by burned out teachers—the funding and subsequent sustainability of such programs become jeopardized. Therefore, research is needed to understand the prevalence teacher burnout has on the field of vocational education.
This study used a survey research design to gather data that examined the burnout phenomenon in vocational education teachers. The dependent variable, burnout, was comprised of three subscales: emotional exhaustion, depersonalization, and personal accomplishment. Independent variables included age, gender, education, years of teaching experience.

**Population and Sample**

Data for this study were collected from a survey using a convenience sample of vocational education teachers in a large urban school system in the metropolitan Atlanta area. The target population for this study was all vocational education teachers in the state of Georgia; however, the desired population would not be easily identified or accessible. A convenience sample was selected because the target group was representative of the target population and willing to participate (Gall, Gall, & Borg, 2007). The final sample consisted of 69 participants once surveys with missing responses were removed.

**Instrument**

The survey instrument selected for this study was the Maslach Burnout Inventory—Educators Survey (MBI-ES, Maslach et al., 1986). The MBI-ES is a 22-instrument that defines and measures burnout as a three-dimensional syndrome characterized by emotional exhaustion—feelings of being emotional exhausted by work (Maslach & Jackson, 1981b), depersonalization—an attempt to put a distance between oneself and service recipients by ignoring the qualities that make them unique and engaging, and reduced personal accomplishment—a decline in one’s feelings of competence and successful achievement of one’s work. Each of the questions on the MBI-ES is scored on a scale of 0 to express no experience at all, to 1-6 to express increased likeliness of presence/experience of burnout symptoms. A four
question demographic survey including age, gender, education, and years of teaching experience was provided with the instrument.

Construct validity of the MBI-ES assessed by Maslach et al. (1986) reported Cronbach’s alpha estimates of two studies. The results were .90 and .88 for emotional exhaustion, .76 and .74 for depersonalization, and .76 and .72 for personal accomplishment. For this study, the Cronbach alpha score for emotional exhaustion was .91, depersonalization was .62 and reduced personal accomplishment was .66. Although the values obtained for the personal accomplishment and depersonalization subscales were not optimal, they are similar to the values reported by Maslach et al. (1986).

Data Analysis

A descriptive statistical analysis was used to determine the influence of selected descriptive characteristics on each of the three subscales of the burnout construct. The characteristics included age, gender, education and years of teaching experience. The burnout construct was measured by assessing the emotional exhaustion, depersonalization, and personal accomplishment via the Maslach Burnout Inventory—Educators Survey. A multiple correlation analysis was used to investigate the relationship of a dependent variable (burnout subscales) to a combination of independent variables (age, gender, education, and years of teaching experience). Statistical Package for the Social Sciences (SPSS) version 23 software was used to conduct each statistical procedure.

Summary of Findings

A total of 69 teachers returned a survey packet for a response rate of 94.5%. Of the 69 respondents, 57% were women and 43% were men. Twenty-two percent held a bachelor’s degree and 88% held a graduate degree. The age of respondents ranged from 30 to 70, with a
median age of 46.25. The years of teaching experience ranged from 0-45 years, with a median teaching experience of 15 years.

The following section provides a discussion of the findings, limitations, and recommendations for future research.

**Discussion of Findings**

**Research Question 1**

The purpose of the first research question was to describe the burnout levels of vocational education teachers. The burnout levels were measured by individual scores on the three subscales of burnout: emotional exhaustion, depersonalization, and personal accomplishment.

The emotional exhaustion subscale describes feelings of being exhausted or emotionally spent from work (Maslach & Jackson, 1981b). Possible scores can range from 0-59, with higher scores indicating burnout. The scores of participants in this study ranged from 0-49, with a mean score of 24.38 indicating a moderate level of emotional exhaustion. Emotional exhaustion scores are associated teachers’ tired and fatigued feelings that, left untreated, make it difficult to interact with students as they once did (Maslach et al., 1986). Moderate levels of emotional exhaustion for this sample indicate that although teachers have bouts with these feelings, they are not experienced regularly.

Depersonalization is described as an unfeeling and impersonal response towards recipients of one’s care or service (Maslach & Jackson, 1981b). Possible scores for the depersonalization subscale can range from 0-30, with higher scores indicating greater levels of depersonalization. The mean scores of participants in this study ranged from 0-30. The overall mean score of 6.24 indicated a low level of depersonalization.
The third subscale, personal accomplishment, describes feelings of competence and successful achievement in working with people (Maslach & Jackson, 1981b). This subscale is independent of the emotional exhaustion and depersonalization subscales and in contrast to these two subscales, lower scores on this subscale reflect a lower sense of personal accomplishment or higher levels of burnout. Thus, low scores are referred to as reduced personal accomplishment. The range for scores on this subscale are 0-48. The range of participant scores were from 21-48 with a mean of 37.58, indicating high personal accomplishment (low burnout).

This sample of vocational education teachers reported moderate emotional exhaustion, low depersonalization, and high personal accomplishment. The Maslach Burnout Inventory—Educators Survey does not allow for one composite score; instead, the coding of high, moderate, and low are used to explain each subscale. The codes are specifically intended for feedback to individual respondents to be compared to the overall norm, and to obtain a rough assessment of the degree of his or her experience with the various aspects of burnout (Maslach et al., 1996). Based on results of my study, vocational education teachers in this sample were not burned out. Scores indicated that while teachers had moderate feelings of being drained and low on energy, they had not reached the high scores that are associated with being unable to perform at work (Maslach et al., 1996). Scores also indicate that teachers had low feelings of depersonalization or cynicism toward their students and colleagues, and they reported feelings of satisfactory personal accomplishment.

Kitchel et al. (2012) found that agricultural education teachers experienced moderate levels of emotional exhaustion, low levels of depersonalization, and high levels of personal accomplishment, identical to the results of vocational teachers in this study. The authors offered no explanation for their findings but encouraged further professional development at the school
level to incorporate ways to combat/cope with feelings of being emotionally exhausted. Although my findings were similar to the findings in this study, my results cannot be generalized due to the use of a convenience sample (Gall et al., 2007; Rubin & Babbie, 2013).

Before conducting this study, I reviewed literature about general, as well as vocational teacher burnout indicating that teachers experience burnout in at least one of the burnout subscales (Byrne, 1991; Chenevey et al., 2008; Evers et al., 2004; Fisher, 2011; Goddard et al., 2006). Coupled with my own experiences with vocational education, I was convinced my study would find moderate to high burnout levels on each of the subscales of burnout. Interestingly, the results of my study found that the vocational education teachers in my sample were not as burned out as I expected.

In consideration of the reasons my findings varied from those of other studies, I explored several ideas. First, I considered the limitations of my study which were timing and administration. The survey was conducted in early December which was at the end of a semester but only one week after a week-long holiday break. Depending on the activities teachers participated in over the break (e.g., vacation, extra sleep, catching up on work) their feelings may have been different than at another time of year. It would be interesting to investigate how differing burnout levels could be attained if collected without such close proximity to a break or perhaps at the end of the school year. Researchers have postured burnout as both a state and a process (Farber, 1983; Schaufeli & Enzmann, 1998; Schaufeli & Bunnk, 2003), so the timing of this study may have yielded different results at a different point in the school year.

The second limitation to this study was the administration of the survey. The survey process was conducted at the district’s semester-end department meeting where the Director of the department and all of staff were present. Even though the confidentiality of results was
explicitly stated in writing by the Information in Lieu of Consent form and verbally stated by reading the introductory script, presence of the leaders may have influenced participant responses. According to Tourangeau, Rips, and Rasinski (2000), despite safeguards of anonymity and confidentiality, respondents are sometimes wary of their information being disclosed to third parties and it is not always apparent that respondents pay attention to the assurances provided by their commitment to participate.

Beyond these limitations, it is possible that there are unique characteristics that influenced my results. Although speculative, based on my knowledge of this convenience sample, an idea that I have is whether or not the route to teaching of the respondents had any influence on the levels of burnout reported. One of the unique characteristics of vocational education is its diverse composition of teachers. There are two primary routes to becoming a teacher: by way of a traditional teacher education undergraduate or graduate level program or directly from industry which means you enter the teaching field based on your content knowledge with the option to postpone formal teacher training (“Steps to Become a Georgia Teacher”, 2015). Vocational education is comprised of several program that are based on technology, industrial, and medical occupations (to name a few) that benefit greatly from industry teachers because of the amount of real-world, working knowledge they bring to the table (Teacher shortage undermines CTE, 2009).

My theory in relation to the results of the study is that perhaps the teachers reported low levels of burnout because they are in their second (or newest) career. Although this theory is suppositious, my working knowledge of the vocational education teachers sampled in this study is that many of the teachers are from industry—meaning they been awarded a teaching certification based on the knowledge of their professional training outside of education.
Researchers have stated that people make the decision to leave their careers for teaching for various reasons to include pursuing a desire for fulfillment, to spend more time with family, to reduce the demand/stress of their profession, and/or a confluence of events that warrant a career change (Chambers, 2002; Crow, Levine & Nager, 1990; Lee & Lamport, 2011). Taking into account the idea that burnout is perceived as both a state and a process (Schaufeli & Enzmann, 1998; Schaufeli & Bunnk; 2003), it is possible that the teachers have not yet reached burnout because they are content with their new positions. In hindsight, questions related to certification route and journey to teaching should have been included on the demographic questionnaire so a better knowledge of this theory could have been ascertained.

**Research Question 2**

The second research question explored the relationship between burnout levels of the three subscales of burnout (emotional exhaustion, depersonalization, and personal accomplishment) and selected descriptive characteristics of age, gender, education, and years of teaching experience. To determine this relationship, multiple correlation analyses (MCA, Huberty & Petoskey, 1999) was conducted.

A review of literature on teacher burnout indicated that while some studies have shown that descriptive characteristics influence the burnout levels on the emotional exhaustion (Antoniou et al., 2013; Burke & Greenglass, 1993; Fisher, 2011), depersonalization (Burke & Greenglass, 1993; Croom, 2003), and personal accomplishment (Byrne, 1991; Fisher, 2011) subscales, other studies (Cano-Garcia et al., 2005; Chenevey et al., 2008; Fejgin et al., 2004) found no significant relationship. For this study, multiple correlation analyses found no statistically significant relationship between the burnout subscales and selected descriptive characteristics.
These results were not surprising due to the inconsistent findings of previous studies. Three studies have found that women experienced higher emotional exhaustion than men (Antoniou et al, 2013; Fisher, 2011). Croom (2003) only found a relationship between age, years of experience and depersonalization—specifically that that as teachers got older and more experienced, their levels of depersonalization decreased. Whereas Fisher (2001) found no relationship between personal accomplishment and age, an earlier study found that as age increased, personal accomplishment decreased. Even though descriptive characteristics are often studied in burnout research, results have been regularly inconsistent. Nevertheless, inclusion of descriptive characteristics assist researchers with gaining perspective in relation to other studies (Maslach et al., 1993).

**Recommendations for Further Research**

One of the primary purposes of this study was to contribute to the sparse body of literature on issues of burnout experienced by vocational education teachers. The results of this study have yielded several recommendations for further research. First, it is recommended that vocational education research begin to incorporate demographic characteristic questions that apply more directly to the experience of a vocational education teacher. Some examples of such questions could include path to certification, extended day status, and Career and Technical Student Organization (CTSO) level of involvement. As it is possible for anyone to change careers and pursue any field of education, it is common practice in vocational education which is comprised of a considerable amount of professionals that enter teaching from industry. Due to the nature of vocational education programs, having industry professionals as teachers is beneficial to the students and the programs because of their recent, working knowledge of their respective field. In light of the results of this
study and the speculative response being the large number of career changers, it would be interesting to see the burnout levels of professionals that come from industry compare to those that are traditionally trained.

Another vocational education-specific characteristic is the extended day grant. Vocational education teachers are often times compensated for their extra work through a grant that is commonly referred to as extended day. This grant can be awarded on a partial or full allotment based, among other variables, on the amount of work expected beyond the normal school work day. This information may provide understanding of burnout levels, especially if compared to hours worked.

Finally, the level of involvement with Career and Technical Student Organizations (CTSOs) by which the teacher is affiliated is another vocational education specific characteristic. As CTSOs are co-curricular by design, meaning that the organizational experiences purposefully mirror the academic curriculum, all vocational education teachers are expected to participate. However, their level of involvement can vary. While some teachers simply participate in the confines of their classroom and the normal school day, other teachers may be involved on a much larger scale. Asking teachers to describe their level of involvement in their CTSO may provide some understanding as to their levels of burnout.

My next recommendation is that demographic characteristics be studied in conjunction with other factors such as personality, job stressors, and organizational factors. The demographic characteristics of teachers is still worthy of research so that the experiences of vocational education teachers can continue to be recorded, thus adding to the overall body of literature. However, as a result of this study, I understand that alone, descriptive characteristics
provide only a limited explanation of the sources of burnout and that the addition of more factors would yield better insight.

My final recommendation is that research be conducted on vocational education teachers that, within one year, will leave or have already left teaching. This type of study will help gain understanding and perspective of the burnout levels that were experienced that prompted their decision to change professions. It would be interesting to know what aspect of burnout, if any, led to their decision to leave the profession.
REFERENCES


APPENDIX A

DEMOGRAPHICS QUESTIONNAIRE
Demographic Questions

Please complete all of the demographics questions below. If responding to a question that asks you to choose an answer, please select one response that best answers the question. The information obtained is confidential and will not be disclosed to anyone outside of this research study.

1. As of December 1, 2015, what is your age? _________

2. What is your gender? (Please circle one)
   a. Female
   b. Male

3. As of December 1, 2015, what is your highest college degree attained? (Please circle one)
   a. Bachelor’s Degree
   b. Master’s Degree
   c. Educational Specialist Degree (Ed.S.)
   d. Doctoral Degree (Ed.D. or Ph.D.)
   e. Other (Please specify) ________________________________

4. As of May 31, 2015, how many years of teaching experience have you completed? __________
APPENDIX B
MASLACH BURNOUT INVENTORY
MBI-Educators Survey
Christina Maslach, Susan E. Jackson & Richard L. Schwab

The purpose of this survey is to discover how educators view their job and the people with whom they work closely.

Instructions: On the following pages are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write the number “0” (zero) in the space before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 5) that best describes how frequently you feel that way. An example is shown below.

<table>
<thead>
<tr>
<th>How often:</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>A few times a year or less</td>
<td>Once a month or less</td>
<td>A few times a month</td>
<td>Once a week</td>
<td>A few times a week</td>
<td>Every day</td>
<td></td>
</tr>
</tbody>
</table>

Example:

<table>
<thead>
<tr>
<th>How Often</th>
<th>Statement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I feel depressed at work.</td>
</tr>
</tbody>
</table>

If you never feel depressed at work, you would write the number “0” (zero) under the heading “How Often.” If you rarely feel depressed at work (a few times a year or less), you would write the number “1.” If your feelings of depression are fairly frequent (a few times a week but not daily), you would write the number “5.”
APPENDIX C

SCRIPT FOR SURVEY ADMINISTRATION
Good Evening,

I am a graduate student at The University of Georgia and I am conducting a study entitled Factors that Contribute to Burnout in Vocational Education Teachers. The purpose of my study is to examine the influence of selected descriptive characteristics on each of three subscales of burnout. I am inviting each of you, as Career and Technical Education teachers, to participate in my study!

Your participation will involve completing and submitting a questionnaire designed to measure burnout and should only take about 15-20 minutes. Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. Your participation in this research study will not affect your employment status.

The findings from this project may provide information on understanding the factors that contribute to burnout of vocational education teachers. There are no known risks or discomforts associated with this research. No one beside the researcher will have access to the data collected. The results of the research study may be published, but your name or any identifying information will not be used. In fact, the published results will be presented in summary form only.

If you have any questions, please do not hesitate to ask them now, or raise your hand so that I may answer them privately.

If you are interested in participating in this study, please accept one of the Information Letter in Lieu of Consent Form that is being circulated to keep for your records.

Thank you for your time and attention.
APPENDIX D

INFORMATION IN LIEU OF CONSENT LETTER
Dear Prospective Participant:

I am a graduate student under the direction of Dr. Jay Rojewski in the Department of Career and Information Studies at The University of Georgia. I invite you to participate in a research study entitled Factors that Contribute to Burnout in Vocational Education Teachers. The purpose of this study is to examine the influence of selected descriptive characteristics on each of three subscales of burnout.

Your participation will involve completing and submitting a questionnaire designed to measure burnout and should only take about 15-20 minutes. Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. If you decide to stop or withdraw from the study, the information/data collected from or about you up to the point of your withdrawal will be kept as part of the study and may continue to be analyzed. Lastly, your participation in this research study will not affect your employment status.

Every effort will be made to maintain your anonymity. Limited identifying information is required to participate in the survey and they will be collected anonymously. No one beside the researcher will have access to the data collected. The results of the research study may be published, but your name or any identifying information will not be used. In fact, the published results will be presented in summary form only.

The findings from this project may provide information on understanding the factors that contribute to burnout of vocational education teachers. There are no known risks or discomforts associated with this research.

If you have any questions about this research project, please feel free to call me at 404.386.4510 or send an e-mail to dfreeman@uga.edu. Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, telephone (706) 542-3199; email address irb@uga.edu.

By completing this questionnaire, you are agreeing to participate in the above described research project.

Thank you for your consideration! Please keep this letter for your records.

Sincerely,

Dwionne R. Freeman
APPENDIX E

UNIVERSITY OF GEORGIA IRB APPROVAL
October 23, 2015

Dear Jay Rojewski:

On 10/23/2015, the IRB reviewed the following submission:

<table>
<thead>
<tr>
<th>Type of Review:</th>
<th>Initial Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of Study:</td>
<td>Factors that Contribute to Burnout in Career and Technical Teachers</td>
</tr>
<tr>
<td>Investigator:</td>
<td>Jay Rojewski</td>
</tr>
<tr>
<td>IRB ID:</td>
<td>STUDY00002756</td>
</tr>
<tr>
<td>Funding:</td>
<td>None</td>
</tr>
<tr>
<td>Grant ID:</td>
<td>None</td>
</tr>
</tbody>
</table>

The IRB approved the protocol from 10/23/2015.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103).

Sincerely,

Gerald Crites, M.D. M. Ed.
University of Georgia
Institutional Review Board Chairperson