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Role Conflict and Role Ambiguity as Predictors of Burnout in Special and General Education Co-teachers

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Abstract

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by

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MS, Springfield College

BA, Central Connecticut State University

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Since the Individuals with Disabilities in Education Act of 2004, special and general educators teach together in many classrooms. Co-teachers are subject to a variety of stressors, including role challenges for teachers who are accustomed to working independently. Research has shown that role ambiguity and role conflict are associated with burnout among special and general educators. However, no prior study has examined whether these role factors contribute to burnout among special and general educators in co-teaching roles. This study was based upon role stress theory in relation to the constructs of burnout. The sample included 72 special educators and 73 general educators who co-taught at 8 urban elementary schools. Participants completed the Role Conflict and Role Ambiguity Scales and the 3 scales of the MBI-ES. Multiple regression analyses were performed to examine the relationship of role ambiguity and role conflict (independent variables) to each of the burnout scales (dependent variables). Each dependent variable was analyzed separately, as were data from special and general educators. Therefore, data analysis consisted of 6 separate regressions. The regression analyses indicated that role ambiguity was significantly related to personal accomplishment in both special and general education co-teachers while emotional exhaustion was significantly related to role conflict in both special and general education co-teachers. This information may lead to improved understanding of the factors contributing to burnout among co-teachers and to the design of appropriate interventions to address this problem.

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Dedication

This study is dedicated to the loving memory of my mother, Mary A. Eason. She was beautiful, strong, caring, and supportive. Unfortunately, she is not here to share this new chapter of my life, but she is forever in my heart. Mom, I love and miss you.

I also want to dedicate this to my father, William Eason and my sister, Casenthia-I hope that I continue to make you both proud of me.

I also want to dedicate this to my nieces and nephews, Brandon, Dayquan, Deandra, and Leandra-I hope I have been a role model for you, and I pray that my doctoral journey will inspire you to accomplish all your desires.

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First and foremost, I would like to thank God for giving me the strength. I also would like to thank my family and friends for their support during my educational journey. The completion of this doctoral study would not have been possible without their endless support, love, and encouragement.

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Chapter 1: Introduction to the Study

Introduction

Freudenberger (1974, 1975) and Maslach (1976) associated burnout with professions involving extensive human contact. Maslach and Jackson (1981) observed that burnout in teachers has three main constructs: emotional exhaustion, depersonalization, and reduced personal accomplishment. Moreno et al. (2010) defined burnout as an emotional drain, a consistent cynical attitude towards individuals and associates, and an absence of the desire to remain competent in a specified job. Because teachers' jobs require constant interactive engagement with students and peers, teachers would seem to be at risk for burnout, along with role conflict and role ambiguity (Beck & Gargiulo, 1983; Edmunds & Litt, 2008; Ehly, 1992; Gavish & Friedman, 2010; Kaufhold, Alverez, & Arnold, 2006; McCarthy, Lambert, O'Donnell, & Melendres, 2009; Rizzo, House, & Lirtzman, 1970; Schwab & Iwanicki, 1981).

Researchers have extensively investigated the experiences of traditional (i.e., special and general) educators suffering from burnout (Egyed & Short, 2006; Shyman, 2010). However, there is a gap in the literature regarding the experiences of burnout in co-teachers who are most frequently identified as (a) consultants, where the special educator serves as a consultant to the general educator; (b) coaches, where the special and general educator take turns in coaching one another in each other's area of the curriculum; and (c) teams, where the special and general educator share tasks equally (Austin, 2001; Damore & Murray, 2009). Although there is an abundance of literature on co-teachers in an inclusive setting, research on burnout by type of teacher is scarce

(Damore & Murray, 2009; Papastylianou, Kaila, & Polychronopoulos, 2009; Wasburn-Moses, 2009; see also Chapter 2 for a review).

In inclusive settings, co-teachers deal with a variety of students who are heterogeneous in their abilities and disabilities (Egyed & Short, 2006). The two positions, a special education teacher and a general education teacher, thus co-teachers, in an inclusive versus restrictive classroom, was introduced by Public Law 94-142 in 1975, which came to be known as Individuals with Disabilities Education Act (IDEA, 2004; Trohanis, 2008). This act federally mandated a free and appropriate public education for all children (ages 3 to 21 years) with disabilities in classrooms with general education students (IDEA, 2004; Trohanis, 2008).

According to Kaufhold et al. (2006), most school districts have already transitioned to inclusive classrooms due to federal and state laws. Before the reauthorization of IDEA in 2004, children with disabilities were mainly taught in separate classrooms due to the challenging and disruptive behavior that special education teachers had to contend with when educating students with disabilities (Broderick, Mehta-Parekh, & Reid, 2005; Connor & Lagares, 2007; Trohanis, 2008). Consequently, the reauthorization of IDEA in 2004 affected both special and general educators because the federally mandated law called for improving classroom conditions while emphasizing the roles and responsibilities of both the special and general educator who co-teach in an inclusive setting (Sileo, Sileo, & Pierce, 2008; Trohanis, 2008). What is unknown is whether these demands that come with the job of co-teaching in an inclusive classroom can cause strain to the extent of burnout in special and general education co-teachers.

In an inclusive classroom, some students' disabilities can range from mild to severe, and students can exhibit emotional disturbances, posttraumatic symptoms, and severe autism (Egyed & Short, 2006). Research shows that special education students are more likely to engage in disruptive behavior, including tantrums, fighting, bullying, disrespect, verbal abuse, tardiness, and truancy (Scott, Park, Swain-Bradway, & Landers, 2007). Up to 40% of an inclusive classroom can consist of students with a disability accessing an inclusive education (Naraian, 2010). Studies have also shown that traditional (i.e., special and general) educators have expressed concerns amongst themselves regarding inclusive classrooms, including the burden of decreased feelings of flexibility, confusion of role shifts, shared time, and loss of decision-making autonomy (York-Barr, Ghere, & Sommerness, 2007). Therefore, co-teaching itself presents role challenges for the traditional (i.e., special and general) education teachers who are accustomed to working independently. One unknown issue that exists is whether role stressors, as with role ambiguity and role conflict, can predict burnout levels in both special and general education co-teachers currently co-teaching at inclusive model schools.

Therefore, outcomes from this study may assist in bringing into perspective, simultaneously, special and general education co-teachers feelings about engaging with heterogeneous groups of students in an inclusive classroom. This study may also contribute to valuable information regarding co-teaching research, which can aid in developing healthy outcomes for co-teachers suffering from burnout, role conflict, and role ambiguity. In addition, results from this study may lead to re-evaluating educational

policies for co-teachers who have to collaborate with each other as well as with other professionals involved in the co-teaching situation. These are all indicative of a positive social change and the need for this study to be conducted.

This chapter includes the following sections: (a) problem statement, (b) purpose of the study, (c) nature of the study, (d) theoretical frameworks, (e) research questions, (f) definition of terms, (g) assumptions, (h) scope and delimitations, (i) limitations, (j) significance of study, and (k) summary section.

Problem Statement

The stressor of having to educate both special education students and general education students jointly and in accordance with IDEA (2004) and the No Child Left Behind Act (NCLB, 2001) at an inclusive model school has the potential to cause in some co-teachers reduced personal accomplishments, emotional exhaustion, depersonalization, role ambiguity, and role conflicts, in addition to compelling them to focus on other concerns that come with educating students assessing special education services. In inclusive settings, co-teachers have to contend with behaviors that may be exhibited by the inclusive group of students on a regular basis, which can include lack of motivation or control of students, minor pupil distractions, and poor relationships, thus causing a job strain that leads to burnout (Abel & Sewell, 1999; Gavish & Friedman, 2010; Scott et al., 2007).

It is important to try to understand the factors that contribute to burnout among co-teachers whose roles change when they move from a traditional independent setting to an inclusive classroom setting. A major factor might be role ambiguity or role conflict

because one or both of the co-teachers often finds him- or herself in a less subsidiary role at times (Damore & Murray, 2009). Role ambiguity and role conflict were a contributing factor to burnout in traditional (i.e., special and general) educators (Embich, 2001; Schwab & Iwanicki, 1981; Wasburn-Moses, 2009). However, research has yet to reveal a relationship between role ambiguity and role conflict at an inclusive model school that predicts burnout in special and general educators who currently co-teach.

Purpose of the Study

The purpose of the quantitative descriptive study was to determine if role ambiguity and role conflict was a predictor in burnout levels in both special and general educators who co-taught. Burnout has been linked with role ambiguity and conflict in general education teachers (Gavish & Friedman, 2010; Papastylianou et al., 2009; Schwab & Iwanicki, 1981). Research on burnout has been conducted with special educators and general educators separately, but not with co-teachers (Schlichte, Yssel, & Merbler, 2005). In addition, research investigating burnout and inclusive classrooms only pertained to general education teachers, not co-teachers (Talmor Reiter, & Feigin, 2005). Increasing understanding of burnout in both general and special education co-teachers and their experiences in that role provides information to determine the effects of role ambiguity and role conflict.

Nature of the Study

In this study, I used a quantitative correlational design to examine the relationship of role ambiguity and role conflict to predict burnout levels in both special and general education co-teachers who co-teach at inclusive model schools. A quantitative

correlational/regressions design is a means for testing objective theories by examining the relationships among variables, whereas these variables can be measured on instruments (Creswell, 2009). Both the Maslach Burnout Inventory-Educators Survey (MBI-ES) and the Role Conflict and Role Ambiguity Scales employ Likert-scaled designs. A quantitative research design also provides a numeric description of trends, attitudes, or opinions of a population by studying a sample of that population (Creswell, 2009), which helps to describe the characteristics of the co-teachers assessed in the study.

The sample was from 8 of 31 public elementary schools that are inclusive model schools within an urban school district. Participants completed two instruments, the MBI-ES, (Maslach & Jackson, 1981), designed to measure burnout in educators, and the Role Conflict and Role Ambiguity Scales, (Rizzo et al., 1970),which, is intended to measure conflict and ambiguity among individuals. In addition, a demographic questionnaire consisted of several questions as to the participants' current position (i.e., special or general educator), gender, years taught, and other information to represent characteristics of the sample. Data analysis could have consisted of an analysis of variance (ANOVA), but the testing of mean differences (between two or more treatments or populations) between the two types of teachers was not the focus of this study. Therefore, regressions were used to examine the degree of relationships among the study variables between the two types of teachers from whom data were collected. Overall, this study added to the empirical research of co-teachers.

Theoretical Frameworks

This study is based on several theoretical frameworks, the first being the psychological construct of burnout, first conceptualized by Freudenberger (1974, 1975, 1977), and later operationalized by Maslach (1982). In Maslach's original scheme, burnout has three dimensions: emotional exhaustion, depersonalization, and a decrease in personal accomplishments. Maslach's research on burnout gave rise to the collaboration with Jackson (1981), and to the construction of an instrument to measure burnout: the MBI. Later, additional versions of the MBI were developed, including one for the educational sector: the MBI-ES.

This study is also based on Seyle's theory on stress. Seyle (1974) defined stress as a reaction to a stimulus that is either good (positive) or bad (negative), leading to the terms *good stress* and *bad stress*. Positive stress protects individuals from harm whereas negative stress becomes physically and mentally debilitating, thus causing illnesses (i.e., stomach problems, flu, headache, and common cold). Several models exist to understand stress; however, only a few are discussed to show the relationship of prolonged strain and stress leading to burnout. In addition, although many definitions/models exist, most authors agree on the deleterious effects of stress.

Lastly, this study is also based on role stress theory, originally theorized by Katz and Kahn (1966) and then by Rizzo et al. (1970). Role stress results when employees (i.e., co-teachers) experience role ambiguity and role conflict. Katz and Kahn (1978) defined role ambiguity as uncertainty about what the occupant of a particular job or position is supposed to do (p. 206). Concurrently, role ambiguity may result from a lack

of (or vague) policies and procedures, a supervisor who has trouble communicating effectively, or uncommon events for which there are no precedent (Kemery, 2006). At the same time, role conflict is defined as "the simultaneous occurrence of two or more role expectations such that compliance with one would make compliance with the other more difficult" (Katz & Kahn, 1978, p. 204). Therefore, when the role is inconsistent—when laity, colleagues, supervisors, and procedures disagree—role conflict is experienced (Kemery, 2006). Ultimately, the components of role stress—role ambiguity and role conflict—are also referred to as role stressors (Bole, Wood, & Johnson, 2003; Kemery, 2006; Mulki, Lassk, & Jaramillo, 2008; Onyemah, 2008).

Rizzo et al. (1970) expanded on measures of role stressors (i.e., role conflict and role ambiguity) and developed them into two independent quantifiably measured factors pertaining to an individual's certainty about duties, authority, allocation of time, relationships with others, clarity of directives, and policies. The Role Ambiguity and Role Conflict Scales was used to investigate what is unknown as to role conflict and role ambiguity in co-teachers and was used to predict burnout in co-teachers who currently co-teach at inclusive model schools.

Research Questions and Hypotheses

Two research questions and the related hypotheses guided this study:

Research Question 1: Do role ambiguity and role conflict, as measured by the Role Ambiguity and Role Conflict Scales, predict burnout (i.e., emotional exhaustion, depersonalization, or personal accomplishment), as measured by the MBI-ES instrument, in special education co-teachers?

*H*1a$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1a$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1b$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1b$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1c$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1c$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers.

Research Question 2: Do role ambiguity and role conflict, as measured by the Role Ambiguity and Role Conflict Scales, predict burnout (i.e., emotional exhaustion, depersonalization, or personal accomplishment), as measured by the MBI-ES instrument, in general education co-teachers?

*H*2a$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2a$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2b$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2b$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict depersonalization, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2c$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2c$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict personal accomplishment, as measured by the MBI-ES instrument, in general education co-teachers.

Definitions of Terms

Burnout: A feeling of exhaustion due to excessive demands on energy, which manifests in different ways depending on the person (Freudenberger, 1975).

*Burnout constructs***:** Emotional exhaustion, depersonalization, and decreased personal accomplishment (Maslach, 1982).

*Control***:** The opportunity to make choices and decisions to solve problems in order to contribute to fulfilling responsibilities or conflicting demands that occur from role ambiguity (Leiter & Maslach 2004; Maslach & Leiter, 1997).

*Co-teaching***:** An arrangement where one full-time special educator and one full-time general educator teach a class consisting of up to 40% students with disabilities, with the remaining 60% plus consisting of general education students (Naraian, 2010).

*General education student***:** A student lacking physical or mental disabilities that would affect his or her learning (Demeris, Childs, & Jordan, 2007).

*Inclusion***:** Full inclusion occurs when a student with disabilities is provided with all the services within the general education classroom, whereas partial inclusion includes removal of the student with disabilities at times for related special education services (Smoot, 2004).

*Inclusive classroom***:** An inclusive classroom includes general and special education students and is an alternative to creating separate classrooms or schools for special needs students (Ruijs, Peetsma, & Van der Veen, 2010).

*Least restrictive environment (LRE)***:** The least restrictive setting for any student is the general education environment, and any other environment is considered restrictive (Rozalski, Stewart, & Miller, 2010).

*Traditional general educator***:** A traditional general educator is a teacher who teaches students lacking physical or mental disabilities that would affect their learning (Demeris et al., 2007).

Assumptions

This study was developed based on the following factors: (a) burnout exists in both traditional (i.e., special and general) educators according to literature and (b) the reauthorization of IDEA in 2004 dictates the need for co-teachers. It was also assumed that participants would complete the instruments in their entirety for consideration to be used in the study. Additionally, it was assumed that research participants were honest in their responses to survey questions because the cover letter thoroughly explained anonymity. Lastly, it was also assumed that a sufficient amount of at least 140 special and general educators who co-teach would participate in the study. Given the assumption that burnout exists, subsequently, the question naturally arises regarding what factors might explain or contribute to burnout. Thus, the motivation for this study rested upon this assumption.

Scope and Delimitations

The coverage of this study was limited to special and general educators who co-taught at an inclusive model elementary school for an urban school district. Schools recently implementing inclusion model curriculums for special and general education students were chosen by me, the researcher. The special and general educators at these particular elementary schools have special education students who are accessing special education services at a rate of up to 24% (at some schools).

Consequently, findings of this study were not generalized to all elementary schools nationwide; however, it was important to note that the national average for students accessing special education services was 14.0%, but included ages 3 to 21(National Center for Educational Statistics, 2011). In addition, this study also included special and general education teachers, not necessarily co-teachers, who collaborated with other professionals for the advantage of a child who was formally requesting services as with other educational assistance programs (i.e., pullout programs). However, the focus of this study was to examine whether a relationship existed between role conflict and role ambiguity to predict burnout in special and general education co-teachers. This study conversely, was not to compare special or general education co-teachers.

Limitations

This study was limited to one school district and did not represent co-teachers in other districts throughout the United States, however, in the future; other districts may be contacted to further research the problem. In addition, the term *burnout* is a negative term, with negative outcomes; therefore, the MBI-ES instrument, which measures burnout, is a self-report measure and is subject to bias by participants because of its use of the term *burnout*. An important limitation to note was that the current study was a correlational study; therefore, caution was needed to be exercised in interpreting study findings in terms of causal relationships among variables.

In an attempt to address limitations concerns, through an agreement with the principal at each school; the cover letter; the ability to seal and self-mail the surveys in a

stamped, self-addressed envelope; and the fact that no individual identification was possible through the surveys, it was hoped that subjects trusted the anonymity of their responses to the burnout questionnaire.

There was no way to know what bias or influence that a path of contact through the principal at each school may have had on any of the subjects. The direct return of the surveys to me, the researcher, in self-addressed envelopes was considered to be the subjects' confidence of assurance of anonymity that was designed to minimize problems with administration/principals.

Positive Social Change

Implications for positive social change includes a contribution to co-teaching research, specifically, by examining role conflict, role ambiguity, and burnout in educators who co-teach as well as special and general education teachers who collaborate with other professionals in elementary schools. By enlarging an understanding of the dynamics of burnout in general and special education teachers who co-teach in an inclusive classroom, this study affects positive social change in several important ways. First, improving conditions for special and general educators who co-teach in inclusive classrooms might enforce a societal commitment to diversity in education. That commitment is based on the assumption that special education students will benefit from engaging with general education students in an inclusive classroom that is co-taught by both a special and general education co-teacher as opposed to segregating special education students, which can be as limiting as separating them based on gender, race, socioeconomic status, or any other demographic characteristic.

Second, identifying the antecedents of burnout brings awareness as to its frequency among co-teachers. Teaching is a stressful occupation, and working with special needs students is particularly challenging, as is testified by the shortage of qualified special education teachers and the generally high turnover rate in the public school teaching profession as a whole. The first step in addressing a problem is identifying and understanding it. This study facilitates identification and understanding regarding teacher burnout.

Third, this study provided valuable information for educational administrators and policy makers who can use its results to form interventions for co-teachers suffering from burnout. As professionals, teachers are especially susceptible to burnout, and the people who supervise them and define their working conditions have a responsibility to create the best possible environment for them to do their important work. Results from this study may lead to rethinking educational policy and to providing better resources for teachers in inclusive classrooms.

Finally, this study associated burnout among co-teachers in inclusive classrooms. For that purpose, the study provides a starting point for additional research. The social costs of burnout are significant: loss of productivity, higher turnover and absenteeism, more illnesses, decreased organizational commitment, more incompetent or unethical workplace behavior. Additional studies may be needed to eliminate those costs, which will benefit teachers, students, and society at large.

Summary

Chapter 1 included an introduction to the problem of why co-teachers might experience role conflict and role ambiguity while co-teaching a heterogeneous group of students in an inclusive classroom. Traditional special education and general education teachers are used to an independent setting that is specifically contained with special education and general education being taught in two separate classrooms. The combining of special and general education students in a classroom is a rather new phenomenon where special educators often report the method to be somewhat of a strain. However, both traditional (i.e., special educators and general) educators have had experiences that caused job strain that led to burnout because the strain was prolonged. Nevertheless, what is unknown is whether co-teachers who have to contend with behaviors and uncertainties on a regular basis along with adherence to policies and procedures of reforms (i.e., IDEA, NCLB) will also experience a level of burnout that is related to role conflict and role ambiguity. The role stress theory explains how the terms *role ambiguity* and *role conflict* were developed. The theory of burnout is explained by conditions of emotional exhaustion, depersonalization, and reduced personal accomplishment.

While most of the research on teachers consists of special and general educators perceptions separately, more studies have begun to consider co-teachers who co-teach in an inclusive environment. Burnout is viewed by most individuals as deleterious to the occupational setting and to morale, but awareness of its role in overall teaching conditions is needed. The field of psychology is interested in updating information on an old phenomenon as with burnout to assist all teachers in being able to do their work

competently. The failure to focus on role ambiguity and role conflict in co-teachers might result in strain to the extent of experiencing burnout among co-teachers. This study might add to the field of psychology and the relationship of burnout, role ambiguity, and role conflict in co-teachers, which has been studied to some extent but not considerably.

Chapter 2 includes a comprehensive literature review pertaining to the theory of burnout, role ambiguity, and role conflict and to the types of students co-teachers have to contend with in an inclusive classroom. In the review of research literature, current findings expose gaps and introduce quantitative correlational approach methods. The chapter also includes an introduction to the background of the two survey instruments used in the study, as well as a topic area for possible future research. Chapter 3 includes summary of research methodology, sample and setting, procedures, consent/confidentiality, data collection procedures, and analysis. In addition, Chapter 4, includes research results, while Chapter 5 includes implications regarding research findings and recommendations.

Chapter 2: Literature Review

Introduction

An inclusive model school can contain up to 25% of the overall student population accessing special education services; this figure rises to as much as 40% in inclusive classrooms (Brackenreed, 2008; Naraian, 2010). Research has yet to investigate how both special and general educators feel in their roles as co-teachers and whether there is a difference in their perceptions related to role ambiguity and role conflict by type of teacher when co-teaching, especially when their roles as co-teachers are unclear or poorly defined (Embich, 2001). What is unknown is whether teachers will experience role ambiguity or role conflict in the role of co-teacher and if role conflict and role ambiguity can predict emotional exhaustion, depersonalization, and personal accomplishment in special and general educators who are now considered co-teachers. In this study, I address the gap in the literature by considering the effects of role conflict, role ambiguity, and type of teacher on burnout in co-teachers.

The literature review began with a search of the following databases: ERIC, PsychInfo, PsycArticles, PsycExtra, SociIndex with Full Text, Education Research Complete, Mental Measurements Yearbook, Google Scholar, ProQuest, and Dissertation Abstracts International. Search terms included *burnout, teachers, inclusion; collaborative, classroom, Maslach, model, inventory; coteaching, IDEA, student, education; self-efficacy, burnout, teachers; job satisfaction, teachers, special; education, teachers, special, burnout; role, conflict, teachers, burnout; stress, teachers,* and *inclusion; role, special, teachers,* and *burnout; role, burnout,* and *teachers; Karasek,*

strain, and *stress ; Karasek, demand,* and *stress; stress, teachers,* and *demands; stressor, teachers,* and *inclusion; teachers, stressors; conflict, role,* and *teacher; ambiguity, role, teachers*, and *burnout; stress, role*, and *Kahn; stress, role*, and *Katz; role, stress*, and *theory; conflict, role,* and *stress;* and *role, ambiguity*, *conflict*, and *stress.* The searches included the years 1929 through 2013. The one article from 1929 was significant (in the opinion of me, the researcher) and related directly to this research described herein.

The review is organized to relate the link between co-teaching stressors and burnout. A review of both general and special educators' experiences with burnout was also reviewed. In addition, a review of the literature relating the link between role ambiguity, role conflict, and burnout that exists among special and general education teachers in general is also reviewed. The review concludes with a summary section.

Co-teaching Stressors

Several researchers investigated the role of co-teachers and found that they were stressed by conditions in the co-teaching situation (Brackenreed, 2008; Engelbrecht, Oswald, Swart, & Eloff, 2003; Forlin, 2001; Forlin & Chambers, 2011). Some of the identified stressors for co-teachers consisted of it disrupting their traditional style of teaching, containing excessive amounts of paperwork, being demanding, being interpersonally conflicting, affecting time management, lacking general support, and leaving them with insufficient time to prepare (Brackenreed, 2008; Damore & Murray, 2009). Co-teachers will have to confront concerns that they might have about co-teaching practices because many schools have already transitioned to offering inclusive education

(Austin, 2001; Brackenreed, 2008; Forlin, 2001; Forlin & Chambers, 2011; Kaufhold et al., 2006).

Engelbrecht et al. (2003) noted that co-teachers have to contend with being held accountable for the educational outcomes of learners with a disability. Co-teachers also have to work with children who may have short attention spans and are children of socioeconomically disadvantaged families. The authors also noted that co-teachers sometimes have to adapt a curriculum to meet the needs of all learners in order to provide a sustaining, active learning environment for learners with a disability while also providing an engaging environment for general education students. Overall, co-teachers have to believe in their ability to teach general education students while focusing on students with disabilities in an inclusive environment (Engelbrecht et al., 2003).

In addition, students in an inclusive environment might be more aggressive or hostile to the point of physically attacking one another due to many of the students being clinically diagnosed with behavioral issues that can include problems with managing anger (Egyed & Short, 2006). Hostility is one of the conditions that can at times make inclusive classrooms a difficult and stressful environment to manage (Egyed & Short, 2006; Forlin, 2001; Forlin & Chambers, 2011). Co-teachers also have to maintain accountability for educational outcomes for all students in an environment that is often compromised by students who distract the class (Edmunds & Litt, 2008; Egyed & Short, 2006; Forlin, 2001; Forlin & Chambers, 2011; Talmor et al., 2005). In Forlin's (2001) study, 89% of the co-teachers admitted that it was too stressful to teach general education students effectively when a child with intellectual disabilities was in the class.

With the percentage of students accessing special education services reaching up to 25% in some schools, teachers will need to receive adequate training in their new roles as co-teachers (Brackenreed, 2008; Brackenreed & Barnett, 2006; Forlin, 2001). However, in one study, 62% of co-teachers reported that in-service trainings were lacking concerning specific disabilities while 63% thought the program of inclusion was insufficient for meeting the needs of special education children (Forlin, 2001). It is apparent that there is a need for co-teachers, with the increasing number of special education students' accessing special education services; however, the co-teacher will possibly confront many disturbances, many frustrations, and much stress given the job's demands, policies, and procedures (Brackenreed, 2008; Brackenreed & Barnett, 2006).

The distress in schools offering an inclusive education is obvious in its co-teachers (Brackenreed, 2008; Forlin, 2001). Physiological and psychological risk factors are associated with these working conditions and may have important health consequences, particularly when control does not commensurate with job demands and thus creates job strain (Karasek, 1979; Karasek & Theorell, 1990). Consequently, what is understood about stress and strain is that teachers who continue to offer services when stressed are hindering their progress in their ability to accomplish goals and teach with quality due to their lack of understanding of the pressure of job strain that concurrently leads to burnout (Brackenreed, 2008; Emery & Vandenberg, 2010; Pas, Bradshaw, Hershfeldt, & Leaf, 2010; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010).

Stress

Stress in one view is both damaging and constructive to some individuals (i.e., teachers) according to Seyle's theory on stress. Stress is defined as a reaction to a stimulus that is either good (positive) or bad (negative), hence, to derive at terms *good stress* and *bad stress*. Concurrently, there are two frequencies that occur from stress according to Seyle's observation. Positive stress protects individuals (i.e., teachers) from harm (Griffith, 1997), while negative stress is physically and mentally debilitating on the individual (i.e., teacher), thus causing illnesses that are physical and emotional. Nonetheless, there are several models to further explain and define stress. Concurrently, the consequences of stress are relevant to many professions including teachers.

Stress in Relation to Burnout

Teaching as a profession has consistently been associated with high levels of stress and burnout (Brouwers & Tomic, 2000). The concept of stress remains a strong topic worthy of academic study within educational institutions because of the works of Lazarus and Folkman (1984); Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964); and Karasek (1979), who defined their observations of stress. Stress has been researched in almost every occupational field, including education. Concurrently, 89% of co-teachers in Forlin's (2001) study admitted conditions were stressful with the recent phenomenon of inclusion; therefore, an explanation of stress is important.

In the literature, stress has been observed from various perspectives, and there is an agreement on the harmful effects of stress, both psychological and physiological. Stress on the job can have significant and deleterious effects on both individuals and

organizations that employ these individuals (Cancio & Conderman, 2008; Cherniss, 1988). Notably high levels of stress for teachers not only affect their performance and health status but also the quality of their teaching (Abel & Sewell, 1999; Egyed & Short, 2006). There have been prevailing accounts in the literature showing that job stress in teachers led to an increased risk of burnout (Brackenreed, 2008; Schwarzer & Hallum, 2008). In particular, up to 30% of teachers who experienced burnout left teaching within the first 3 to 5 years of their career; therefore, the physiological and psychological effects of stress are worth reviewing given that they affect attrition rates and education practices as a whole (Brackenreed, 2008; Kain, 2011; Kaiser, 2011).

In one view, stress is perceived as a response of the body to demands (Seyle, 1974). This demand can be positive or negative depending on how the individual (i.e., teacher) perceives it throughout his or her daily interactions in an environment (Santavirta, Solovieva, & Theorell, 2007; Theorell, 1999). In addition, stress is regarded as the mind-body experience of "fight or flight" syndrome: a situation in which the body uses its resources to survive when demands are excessive and pressuring (Cannon, 1929; Goldstein & Kopin, 2007; Kyriacou, 2001). Furthermore, Schwarzer and Hallum (2008) considered emotional exhaustion to be a stress component because it involves being emotionally overextended, depleted of emotional resources, fatigued, and worn out. Thus, stress possibly affects job-related behaviors (in teachers) to the point where meeting demands and competence are questionable (Naring, Briet, & Brouwers, 2006).

The illustrated view of stress in Karasek's demand-control model (DCM) points out that those stressors are due to job strain. Concurrently, prolonged job strain has led to

burnout in some studies (Skaalvik & Skaalvik, 2007; Santavirta et al., 2007). Karasek's DCM puts forth that strain results from three aspects of work: high job demands, low decision latitude or job control, and low social support. Karasek explained the terms in the DCM for understanding. The first term consisted of sources of stress (stressors), as with workload demands that are present in a position, which can also be called "job demands." The second measure was decision latitude, also called "job control" or "discretion." Some teachers identified the co-teaching role as too demanding, interfering with the traditional style of teaching (independently), and lacking general support. Consequently, this model helped researchers to understand how co-teachers perceive job strain related to job demands and less control as co-teachers. One assertion about Karasek's DCM related that individuals (i.e., teachers) who can decide for themselves do not experience job strain (e.g. job-related anxiety, health complaints, exhaustion, and dissatisfaction). However, the individual with a lack thereof of decision latitude could possibly modulate the release of "stress" (potential energy) into energy of action, thus leading to psychological strain and illness (Karasek, 1979; Schnall & Landsbergis, 1994; Schnall, Landsbergis, Pickering, & Schwartz, 1994).

Another model built on the premise of the DCM is the job demand-control (JDC) model introduced by Karasek and Theorell (1990). This model posited that the amount of stress experienced by an individual is an outcome of the interaction between job demands and the personal/ organizational resources available for coping with those demands, particularly decision control (Karasek & Theorell, 1990). Basically, control on a job included the opportunity to act autonomously and independently to exercise influences

over decisions in a job regarding working conditions and organizational issues (Karasek & Theorell, 1990). With the co-teaching positions, teachers lose their independence when assigned to work as a team, but losing independence is only a concern for teachers who are used to working and making decisions independently. At the same time, an understanding as to how co-teachers experience conflict and ambiguity in the role of co-teacher is seen in this position that often requires a lot of cooperation.

Concurrently, the JDC and DCM seemed to complement each other in that stress occurred when job demands were high and control was low. Conversely, high control allows for liberty to make decisions, exercise judgment, and enhance an individual's ability to cope in an environment when stressed (Naring et al., 2006). Nevertheless, a consistent finding in both models was that low decision latitude existed with heavy job demands, leading to mental strain.

The last model premised on the DCM is the job demands-resources (JD-R) model of burnout, created by Demerouti, Bakker, Nachreiner, and Schaufeli (2001). They proposed that burnout developed from stress and was a result of two categories of work processes. In the first process, job demands labeled as aspects of the job that required a great deal of effort resulted in psychological costs, such as burnout (i.e., exhaustion). In the second process, the lack of job resources complicated the goal of meeting job demands alternatively if these resources were available; hence, resources assisted the individual in achieving work goals, diminishing the demands of the job, and influenced personal growth. With these authors conjecturing that job demands predicted the emotional exhaustion of burnout while job resources predicted the depersonalization of

burnout, consequently this model helped to explain the psychological and physiological costs of continuing to work in a stressful environment (Halbesleben, Buckley, & Sauer 2004).

Other researchers, such as Lazarus and Folkman (1984), however, insisted on first evaluating a stressor as threatening or harmful (primary appraisal) and then evaluating the options to cope (secondary appraisal) to lessen the effects of stress. Lazarus and Folkman (1984) noted that throughout a stressful encounter, individuals, including teachers, experienced a range of emotions throughout the appraisal process. For instance, appraisals perceived by the individual as harmful included emotions of anger or sadness, whereas appraisals that were perceived as threatening were expressed with anxiety or worry in an appraised stressful transaction that was considered taxing or exceeding the individual's resources to cope (Folkman, Bernstein, & Lazarus, 1987). The key response to stress though is being able to recognize a mismatch between the job demands and the ability to cope with the demands of the job (Egyed & Short, 2006; Kyriacou, 2001). A teacher, like most individuals, who appraises situations as exceeding the resources to cope to the point it becomes threatening, will show signs of stress that could cause harm (Lazarus & Folkman, 1984).

Although stress is harmful at times, not every exposure to potentially stressful situations is deleterious (Lath, 2010). The harm comes when teachers' coping mechanisms are overwhelmed, and their experience with stressors reaches a point where they become exhausted, physically, and emotionally. Somehow the individual's (e.g., teacher's) immune system weakens making them prone to disease, and finally they

succumb to burnout if the stress is prolonged (Davidson, 2009). Therefore, there is a need to clarify burnout because it is the endpoint of chronic occupational stress and is distinctive in that it is a kind of job-related stress that inhibits the person's capacity to function because the body's resources that are known to protect against stress becomes weak and ultimately exhausted (Davidson, 2009; Kahn et al., 1964; Maslach, 1978; Seyle, 1974). The term *burnout* is still useful but often is referred to as the prolonged effect of chronic occupational stress (Seyle, 1974).

For educators, the consequence of prolonged stressors that result in professional burnout causes physical and mental illness and impairs the quality of teaching (Lath, 2010). Evidence shows that the physical signs of burnout that result from prolonged stress include headache, migraines, heart problems, stomach problems, acidity, chest pains, constant colds, skin irritations, and allergies (Lath, 2010). Mental and emotional signs of burnout resulting from prolonged stress were consistent with reduced interest in work, poor memory, sleep disturbances, suspiciousness, losing enthusiasm, and loss of self-esteem (Lath, 2010). In addition, the behavioral signs of burnout that resulted from prolonged stress included remaining isolated from others, doing routine work quickly, an increase in drinking, getting irritated, being uncooperative, and being disliked by others (Lath, 2010).

Burnout

The full manifestation of burnout is a negative affective response occurring as a result of chronic work stress provoked at both the environmental/ organizational and personal level that leads to a tripartite syndrome that includes emotional exhaustion,

depersonalization, and lack of personal accomplishment (Farber, 1991; Fives, Hamman, & Olivarez, 2007; Kokkinos, 2007; Maslach, Jackson, & Leiter, 1996).

The term *burnout* was first coined by Freudenberger (1974) to explain a situation experienced by professionals, who appear to be exhausted or in a state of inability to perform tasks effectively or sometimes even to care for their clients. Maslach (1976), on the other hand, defined burnout as a condition in which one loses all concerns and feelings toward the person one works with, to the extent that the relationship becomes distant. Together Maslach and Jackson (1981) developed a multidimensional model to describe the three aspects of the content of burnout: (a) emotional exhaustion (feeling drained or tired), (b) depersonalization (treating clients as impersonal objects), and (c) lack of personal accomplishment (feeling ineffective and inadequate). Subsequently, a comparable contextual model has been developed since Maslach and Freudenberger's discovery.

Schwarzer and Hallum (2008) developed their own concepts of burnout that also consisted of three components: stress, evaluation by others, and self-evaluation. Similar to Maslach's theory, the Stress component refers to the teacher's feelings of emotional depletion to the point where the teacher becomes worn out psychologically (Schwarzer & Hallum, 2008). Next, called the Other Evaluation component is similar to Maslach's depersonalization context and describes the teacher as being cynical, too realistic, and callous towards students. Lastly, Self-evaluation is parallel to reduced personal accomplishment of Maslach's theory, which causes an inability to keep up with job demands (Schwarzer & Hallum, 2008). Despite Schwarzer and Hallum's updated

correlation of the term, Maslach's (1978, 1982) description of the term and aspects of professional burnout that explains the condition as a physical and mental exhaustion, in which the teacher loses interest and positive emotions that were once had for the students being served, to the extent that the teacher becomes unsatisfied with work or productivity and develops a negative image of him- or herself. The current study explains and defines the experiences of burnout in co-teachers.

Maslach's terms are the most acceptable in describing burnout and the instrument to measure burnout in teachers. The MBI-ES was devised by Maslach and Jackson in 1981. However, in Israel, Friedman (1999) also created an instrument to measure burnout entitled Questionnaire on Teacher Burnout, which measures components of exhaustion, depersonalization, and non self-fulfillment. Maslach's (1976) model has been widely accepted in investigating teachers' constructs of burnout, whereas the 1981 MBI instrument has been consistently found to be a reliable instrument globally in several studies (Egyed & Short, 2006; McCarthy, Lambert, O'Donnell, & Melendres, 2009; Papastylianou et al., 2009). Therefore, in the present study, the model and the instrument were adopted to measure burnout levels in (i.e., special and general) educators who co-taught in inclusive classrooms. Although researchers have extensively studied burnout in traditional teachers, rarely have these studies been conducted on educators serving in the role of co-teacher.

General Education and Burnout

Burnout can cause depletion of energy, somewhat detached, and feelings of incompetence in individuals such as teachers (Freudenberger, 1974; Maslach, 1981).

General education teachers' experiences with burnout are related to existential fulfillment (Loonstra, Brouwers, & Tomic, 2007 & 2009; Tomic & Tomic, 2008), depression (Papastylianou et al., 2009), job dissatisfaction (Otero-Lopez et al., 2008; Otero-Lopez, Bolano, Marino, & Pol, 2010;Otero-Lopez, Castro, Villardefrancos, & Santiago, 2009), school climate (Grayson & Alvarez, 2008; Jennings & Greenberg, 2009), student disciplinary issues (Otero-Lopez et al., 2008), and efficacy (Betoret & Artiga 2010; Klassen, 2010; Skaalvik & Skaalvik, 2007; Schwarzer & Hallum, 2008).

Otero-Lopez et al.'s (2008) correlational study with general education teachers (*n* = 1,386) demonstrated that student disruptive behavior on the burnout subscales of emotional exhaustion and depersonalization were positively associated while personal accomplishment was negatively associated on both dimensions, emotional exhaustion and depersonalization. This research suggested that an academically challenged environment has contributed to burnout in traditional general education teachers. However, it is unknown whether burnout can similarly be perceived in co-teachers who also have to contend with heterogeneous groups of students in inclusive classrooms (Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2007)—hence the reason for this study. Just like co-teachers, general educators have to contend with behaviors and job demands that are considered stressors.

Pas et al. (2010) also conducted a study on student behavior, burnout, and efficacy, and results indicated that general education teachers with high levels of burnout were less likely to refer disruptive students for special education services or even get involved with the student's academic progress. High levels of burnout caused general

education teachers to feel conflicted or go against instructional, curriculum directives and their beliefs of what was best for their students (Iwanicki, 1983). This evidence indicates that emotionally drained general educators may neglect their duties and make incompetent decisions when they continue to work during the experience of burnout (Chang, 2009; Moreno et al., 2010; Sari, 2004). Additionally, general educators, comparable to co-teachers, are finding it difficult to manage instructional or curriculum designs when students disrupt the class, which contributed to burnout in some general educators (Pas et al., 2010). Although Betoret and Artiga (2010) conducted a study with 724 general educators and found that they were confident in their abilities to manage as well as teach effectively in a disruptive contentious environment, this was not the case in most instances (Pas et al., 2010).

For the most part, research confirmed that burnout exists in general education teachers when challenged in an environment (Schwarzer & Hallum, 2008; Schwerdtfeger, Konermann, & Schonhofen, 2008). To date, only one study has focused on the effect of the inclusive environment with general educators' roles being described as conflicting or ambiguous when relating to burnout; however, a study was conducted.

Talmor et al.'s (2005) study involved 330 general education teachers who co-taught in an inclusive environment; Talmor et al. found that teachers' attitudes towards the inclusion process were significantly correlated to high levels of burnout ($r = -0.145$; $p < 0.05$). This type of growing research serves as the basis for further research as to whether the ambiguous and conflicting role of the co-teacher can be a predictor in the burnout of current co-teachers. Understanding the co-teaching situation is imperative if

general educators and special educators are to function effectively as co-teachers and exert a positive influence on their students, colleagues, and society at large with this new approach (Cenkseven-Onder & Sari, 2009).

Special Education and Burnout

Co-teaching involves both a special and general educator working together. This partnership can be frustrating for some special education teachers if they are affected by burnout (Cephe, 2010). A large number of studies has considered factors contributing to burnout in special education teachers, including lack of school supplies (Kaufhold et al., 2006), student misbehavior (Egyed & Short, 2006), feeling isolated (Schlichte et al., 2005), lack of social support (Bataineh, 2009), conflicting instructional assignment (Cancio & Conderman, 2008), efficacy (Pas et al., 2010), low emotional intelligence (Platsidou, 2010), expectation of roles (Wasburn-Moses, 2009), job dissatisfaction, (Platsidou & Agaliotis, 2008), and feelings of being unwelcome (Embich, 2001). Although studies have considered special education teachers and burnout levels, researchers have called for more investigation in this area (Hoffman, Palladino, & Barnett, 2007; Skaalvik & Skaalvik, 2007), due to research being scarce that relates to special education co-teachers.

Some researchers have found that special education teachers experience stress to the extent of burnout more so than general educators because special educators have frequently reported feeling a lack of support in their job and duties as special educators (Kaff, 2004; Platsidou, 2010; Westling, Herzog, Cooper-Duffy, Prohn, & Ray, 2006). Many special education teachers have had to manage the delivery of a curriculum to

special education students, and at the same time, some general educators may not be familiar with special educators' roles and responsibilities, consequently leading some special educators to feel isolated (Kaff, 2004). More than half (57%) of the special educators in Kaff's 2004 study reported a lack of support from colleagues in their job roles but were still expected to perform multiple roles without proper assistance. In Platsidou's 2008 study, experiences of uncertainty and conflict within a job led to job dissatisfaction and high levels of burnout in some special educators. The current study was an investigation of both special and general educators in their role as co-teachers who work collectively; therefore, a resolution on working together is worth reviewing.

A solution that was pointed out in order to prevent stressful conflicts was that both special and general educators share in the planning and delivering of lesson plans equally, even though this would be difficult when in most cases the general education teacher mainly facilitates and the special education teacher serves in the less significant consultant role that is somewhat isolated to students seeking special education services (Damore & Murray, 2009; Embich, 2001). When teachers are required to work together, a job can become demanding and challenging, therefore, it is necessary to understand and examine the effects of role stress, role conflict, role ambiguity, and the potential impact of these factors on burnout in co-teachers.

Role Stress

Role stress, originally theorized by Katz and Kahn (1966) and later by Rizzo et al. (1970) consists of two stressor components—role conflict and role ambiguity. Role ambiguity occurs when employees are unclear about the duties and actions required in

their job, whereas, role conflict results when employees perceive that group expectations and demands are incompatible and cannot be simultaneously satisfied (Walker, Churchill, & Ford, 1975). Concurrently, role stress theory identifies the strain resulting from role ambiguity and role conflict in multiply tasked employees with several roles (Gonzalez-Roma & Lloret, 1998; Kahn et al., 1964; Kelloway & Barling, 1990), as with co-teachers. It is a phenomenon in organizational settings known to impair the effectiveness of individuals while they perform a job (Kahn et al., 1964). Role stress research has mainly focused on role stress as an individual issue, as opposed to it being a collective one (Akgun, Lynn, & Byrne, 2006; Bravo, Peiro, Rodriguez, & Whitely, 2003; Gonzales-Morales, Rodriguez, & Peiro, 2010; Kelloway & Barling, 1990; Leach, Wall, Rogelberg, & Jackson, 2005; Salas, DiazGranados, Weaver, & King, 2008;). However, with positions that consist of teams and is similar to the co-teaching situation, stressful conditions gives rise to further research of teams (Salas et al., 2008).

Research has revealed that job demands such as high work pressure, emotional demands, and uncertainty of demands in a role can lead to sleeping problems, exhaustion, and impaired health (Halbesleben et al., 2004); whereas job resources that entail social support, performance feedback, and autonomy---possibly lead to motivational processing in job-related learning, work engagement, and organizational commitment (Demerouti et al., 2001; Salanova, Agut, & Peiro, 2005; Taris & Feij, 2004). While role stress (i.e., ambiguity and conflict) cannot be totally eradicated, an understanding of its effects and consequences in teachers with evolving roles will suffice.

Role Conflict, Role Ambiguity, and Burnout

Special and general education teachers have to work together in an inclusive environment in order to provide an education to a heterogeneous group of students on a constant basis. These teachers (i.e., special and general), however, are used to working in an environment that consists of an independent setting. Concurrently, both have to contend with working together and respecting each other's area of expertise, whether it is special or general education because both are responsible for all students learning in an inclusive environment. Consequently, if there is a lack of respect for each other's expertise in an inclusive environment, there is the chance for role conflict and role ambiguity.

The lack of having job-related information concerning various aspects of job specifics in what to do in the role of co-teacher can involve and create two types of responses: (a) role ambiguity, where the teacher holding a position is not sure of what all the role will entail to perform in that role, and (b) role conflict, where a teacher's identification with the role and demands received from another colleague involves conflicting instructions due to an inherited existence of the position (Kahn et al., 1964; Starnaman & Miller, 1992; Talmor et al., 2005). There had been no link to role ambiguity when the Role Ambiguity and Role Conflict Scales were used, leading to increased levels of anxiety, depression, and decreased job involvement (Jackson, Schwab, & Schuler, 1986; Rizzo et al., 1970; Schwab & Iwanicki, 1981; Starnaman & Miller, 1992; Van Sell, Brief, & Schuler, 1981), but there was a link with two of Maslach's burnout subscales, reduced personal accomplishment and increased emotional exhaustion among (n = 1,300)

traditional (i.e., special and general) educators (Starnaman & Miller, 1992). Furthermore, role conflict has been a consistent predictor of emotional exhaustion and depersonalization in teacher samples that did not specifically identify special or general education teachers (Jackson et al., 1986; Schwab & Iwanicki, 1981). However, none of these studies included co-teachers.

Role ambiguity and conflict have been linked with a variety of behaviors and attitudes in teachers when stressed (Papastylianou et al., 2009; Schwab & Iwanicki, 1981; Starnaman & Miller, 1992). Researchers have found that stress from role ambiguity and role conflict drive up absenteeism rates, create low morale, affect teachers' performance, create noxious states, deteriorate the mission of the organization, and interfere with them accomplishing goals (Dworkin, Haney, & Telschow, 1988; Kahn et al., 1964; Schmidt & Neubach, 2007).

The problem is that when roles are unclear and poorly defined, a psychological strain also known as burnout will likely produce, which is seen in individuals who are dissatisfied with their jobs (Schmidt & Neubach, 2007). In some, the dissatisfaction has led to a feeling of futility pertaining to how to cope with changes or stressors in an organizational environment where the unstructured, inconsistent, and contradicting environment has the potential to amplify role ambiguity and role conflict (Schmidt & Neubach, 2007). Depending on intensity, role conflict and role ambiguity can conversely reduce or increase stress perceptions (Kahn et al., 1964). Unquestionably, the result of role stressors is burnout if stressors progress into prolonged situational occurrences (Kahn et al., 1964).

A recent study in Greece, however, resulted in contrasting results regarding the roles of teachers, depression, and their abilities with current reforms in the educational system (Papastylianou et al., 2009). Some traditional teachers within this study, which did not include co-teachers, experienced professional isolation and burnout from various conditions (Papastylianou et al., 2009). Some teachers felt insecure and confused in their role as teachers. This study included the use of the Role Conflict and Role Ambiguity Scales, the Maslach Burnout Inventory, along with the Depression Scale. The degree of role ambiguity was a low risk [but the subscale of the Degree of role clarity was a rather high index and risk (5.6 ± 1.0)], whereas the degree of role conflict was an average risk. Papastalyniou et al. (2009) interpreted this to mean that traditional general education teachers are well prepared mentally for the requirements of their jobs. Even with recent reforms, on average burnout levels stood at medium considering all three MBI subscales for this study. Results specifically from Papastalyniou et al.'s study showed that emotional exhaustion was predicted by role conflict, and depersonalization was related to role conflict and role ambiguity, whereas personal accomplishment was predicted by role ambiguity.

Similar to earlier studies (see Schwab & Iwanicki, 1981; Jackson et al., 1986; Starnaman & Miller, 1992; Van Sell et al., 1981), Papastylianou et al. (2009) did not find a link between depression and role conflict or ambiguity but did find a link between burnout, role ambiguity, and role conflict as with the previous studies (Jackson et al., 1986; Schwab & Iwanicki, 1981; Starnaman & Miller, 1992; Van Sell et al., 1981). Because inclusive educational practices necessitate for both a special and general

educator to work together in order to educate heterogeneous groups of students in one setting, and role conflict and role ambiguity are relative only with interactive role assignments (i.e., co-teachers), as a result, an exploration was considered as to whether role conflict and role ambiguity continued to predict burnout levels in co-teachers as in previous studies that explored traditional teachers?

In a study of n = 469 randomly selected Massachusetts teachers that consisted of both traditional (i.e., special and general) educators from elementary and secondary schools, Schwab and Iwanicki (1981) examined the relationships among role conflict, role ambiguity, and burnout. A multiple regression analysis was used to analyze the extent of role conflict, role ambiguity, and burnout as measured by the Role Conflict and Role Ambiguity Scales and the Maslach Burnout Inventory. The authors concluded that role conflict and role ambiguity explained a significant amount of the variance in feelings of emotional exhaustion and negative attitudes towards students. They also found that role conflict and role ambiguity differed in their relationship according to the three-burnout subscales when the authors considered personal and background variables to make an association with the levels of burnout (i.e., high, average, & low) for teachers. There were no differences in their feelings of burnout when teachers were being classified according to years taught, district taught (i.e., urban, suburban, or rural), marital status, and highest degree of education; however there were differences according to grade taught and age. The current study is different because it contains both special and general educators who co-teach as the sample, which is a rather new phenomenon. The authors, Schwab and Iwanicki (1981), did not use co-teachers as a sample when

examining whether role ambiguity or role conflict could predict emotional exhaustion, depersonalization, and personal accomplishment among the traditional teachers in their study. Therefore, in the current study, traditional teachers were excluded. Only randomly selected special education and general education co-teachers from an urban school district were used to investigate whether role ambiguity and role conflict predicted emotional exhaustion, depersonalization, and personal accomplishment in both these groups.

Schwab and Iwanicki's (1981) overall findings were consistent with the perception that role conflict and role ambiguity exists in teachers with frequent and intense feelings of emotional exhaustion and negative attitudes toward students while role conflict and ambiguity had a minor effect on feelings of accomplishment. Given that co-teaching is a new phenomenon that requires collaboration, an investigation of the effect on how role ambiguity and role conflict affect co-teachers is necessary.

Embich (2001) examined the relationship that existed between factors that led to burnout in secondary-special education teachers along with role conflict and ambiguity. Embich's (2001) study was quantitatively designed with about $n = 300$ special education middle and high school teachers from a large suburban district who co-taught while in their traditional roles. Embich's (2001) study used a regression analysis using both the Role Conflict and Role Ambiguity Scale and the Maslach Burnout Inventory for measurement. The findings suggested that role conflict was the strongest predictor in emotional exhaustion for special education teachers who had a co-teaching assignment, as well as for those who were special education teachers who did not have a co-teaching

assignment within this group. Role ambiguity contributed to a reduced sense of personal accomplishment for special education co-teachers. The findings are consistent with other researchers' in that role conflict occurs when two or more people have sets of inconsistent expected behaviors for the person in his or her same exact or similar role (Schwab & Iwanicki, 1981). However, it is important to understand the effects of role conflict and role ambiguity on both special and general education co-teachers as opposed to primarily focusing on special education co-teachers.

Co-teaching is a rather new phenomenon that comes with stressors. However, whether the role of co-teaching is subjected to role ambiguity and role conflict and whether it can predict emotional exhaustion, depersonalization, or personal accomplishment in co-teachers consisting of both special and general educators who teach jointly are still unknown. To date, research shows role ambiguity and role conflict to be a consistent factor predicting burnout in samples of traditional educators; however, role ambiguity and role conflict has not been specifically examined in co-teachers consisting of both a special and general educator as a sample.

Summary

Teachers, administrators, and researchers are consistently searching as to a means to reduce the complications that come with uncertainties in roles as with role ambiguity and role conflict because both can lead to burnout (Cherniss, 1988). A review of the literature suggests the results of burnout consists of both physical and psychological symptoms consistent with recurring colds, flu, headaches, and depression (Milfont, Denny, Ameratunga, & Merry, 2008; Sari, 2004; Skaalvik & Skaalvik, 2007). Co-

teachers would seem to be likely candidates for burnout since traditional (i.e., special and general) educators have experienced consequences of burnout. However, co-teachers would seem to be at a greater risk because of the unpredictable relationships, role conflicts, and role ambiguity described in the literature among special and general educators having to manage heterogeneous groups of students (Bilge, 2006). Co-teachers appear to be conducive to stress; however, it was necessary to explore whether role conflict and role ambiguity as measured by the Role Ambiguity and Role Conflict Scales was a predictor of emotional exhaustion, depersonalization, and personal accomplishment as measured by the MBI-ES instrument in co-teachers who taught inclusive education. There is a gap in the literature on co-teachers' experiences with role ambiguity and role conflict predicting burnout because little research has been done to date on co-teachers and burnout (Embich, 2001). Research had been conducted with traditional educators, special educators, and general educators who might have co-taught, but research has yet to examine both a special and general education co-teacher's perceptions jointly. In Chapter 3, a discussion of the study's methods, research design, sample, data collection, analysis procedures, and ethical protections is provided.

Chapter 3: Methodology

Introduction

The purpose of this quantitative correlational study was to examine the relationship of role conflict and role ambiguity as potential predictors of levels of burnout (emotional exhaustion, depersonalization, and personal accomplishment) among special and general education co-teachers. Identifying antecedents of burnout might elucidate factors that contribute to burnout among co-teachers. This chapter includes the methods, sample and setting, instrumentation, data collection, data analysis, and procedures used to protect the participants. The specific research questions are addressed and corresponding null and alternative hypotheses are listed in the following section.

Restatement of the Research Questions and Related Hypotheses

Two research questions and the related hypotheses guided this study:

Research Question 1: Do role ambiguity and role conflict, as measured by the Role Ambiguity and Role Conflict Scales, predict burnout (i.e., emotional exhaustion, depersonalization, or personal accomplishment), as measured by the MBI-ES instrument, in special education co-teachers?

$H1a_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers.

$H1a_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1b$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1b$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1c$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1c$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers.

Research Question 2: Do role ambiguity and role conflict, as measured by the Role Ambiguity and Role Conflict Scales, predict burnout (i.e., emotional exhaustion, depersonalization, or personal accomplishment), as measured by the MBI-ES instrument, in general education co-teachers?

*H*2a$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2a$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2b$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2b$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict depersonalization, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2c$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishments, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2c$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict personal accomplishment, as measured by the MBI-ES instrument, in general education co-teachers.

Research Method and Design

This study employed a correlational (explanatory) design. A correlational research study allows the testing of two or more variables to investigate the directions and magnitude of relationships among variables (Creswell, 2009; Gravetter & Wallnau, 2009). A regression method is appropriate when trying to determine if several variables that are not experimentally manipulated can predict a measured response variable (Gravetter & Wallnau, 2009). This method was used to investigate whether role ambiguity and role conflict can predict levels of burnout among each type of teacher. Most of the studies that were selected for the literature review used a regression/correlational analysis to predict burnout levels in traditional teachers

(Cenkseven-Onder & Sari, 2009; Gavish & Friedman, 2010; Otero-Lopez et al., 2010; Papastylianou et al., 2009;), as well as to examine the extent of role ambiguity and role conflict in traditional teachers and special education co-teachers (Embich, 2001; Rizzo et al., 1970; Schwab & Iwanicki, 1981).

In the current study, participants completed the following: the MBI-ES (see Appendix A), the Role Ambiguity and Role Conflict Scales (see Appendix B), a Demographic Questionnaire (see Appendix C), and an Explanation Letter /Informed Consent Form (see Appendix D). . Regression analysis was used to assess relationships between the predictor variables (i.e., role ambiguity, role conflict, and type of teacher) and the criterion variable of burnout (i.e., emotional exhaustion, depersonalization, and personal accomplishment). Separate regressions were performed to analyze each of the three criterion variables in relation to the predictor variables. The data from the special education co-teachers and from the general education co-teachers were treated as separate samples and were analyzed separately. Therefore, a total of six regression analyses were performed, corresponding to the six pairs of null and alternative hypotheses.

Sample and Setting

The setting and sample for the study consisted of special and general educators who currently co-taught at an inclusive model elementary school for an urban school district. The school district, was chosen because it had recently implemented an inclusion model into their curriculum for special and general education students. Fourteen out of 31 elementary schools within the district were selected through a random drawing in which all 31 elementary schools had their name on a folded piece of paper (31 total) that

concealed the names of elementary schools. I, the researcher placed each piece of folded paper in a box to draw out the 14 participating school names that served as the sample for the study. Each participant from the 14 schools was able to participate if he or she was an elementary school teacher (i.e., special or general) at one of the 14 schools. The population of this study, overall, consisted of 31 elementary schools, with only a sample of fourteen out of the 31 being used to derive an appropriate sample size of at least 70 teachers in each group (i.e., special and general) for a regression analysis. The required sample size was calculated using G*Power software program, assuming an effect size, f^2 = 0.15, with a statistical power level of 0.8 and a significance level of 0.01 (Faul, Erdfelder, Lang, & Buchner, 2007). Accordingly, 145 participants were recruited for the study.

Instrumentation

The MBI instrument (see Appendix A) was used to assess levels of burnout in co-teachers with predictors of role ambiguity, role conflict, and type of teachers as the factors (Maslach & Jackson, 1981; Rizzo et al., 1970). The demographic questionnaire (see Appendix C) included several specific questions pertaining to participant's current assignment as teacher (i.e., special, general, or unsure), gender, and years taught. An answer of unsure was noted but not used to analyze data. Based on responses to the demographic questionnaire, subjects were classified as either a special educator or general educator; however, both groups had separate regression analysis. Data analysis comprised the Role Ambiguity and Role Conflict Scales instrument, and the MBI-ES instrument.

Maslach Burnout Inventory Educators Survey (MBI-ES)

The MBI-ES was developed by Maslach et al. (1996) to measure attitudinal levels of burnout in educators, including co-teachers. The MBI-ES is the same as the Human Service Survey (HSS) version with the exception that the word *student(s)* was used rather than *recipient(s).* The MBI-ES questionnaire contained 22 items that yields scores on three scales: (a) emotional exhaustion (nine items about weariness), (b) depersonalization (five items about insensitivity), and (c) personal accomplishment (eight items about enthusiasm when working with others). All three respective scale items were summed for scoring. Questions 1, 2, 3, 6, 8, 13, 14, 16, and 20 were emotional exhaustion questions. Questions 5, 10, 11, 15, and 22 pertained to depersonalization while questions 4, 7, 9, 12, 17, 18, 19, and 21 related to personal accomplishment. Upon summing the scores for each of the three subscales, the interpretation of scoring was as follows: (a) emotional exhaustion (0-16, *low*; 17-26, *medium*; and 27 or over, *high*), (b) depersonalization (0-8 *low*; 9-13 *medium*; and 14 or over, *high*), and (c) personal accomplishment (37 and over, *low*; 31-36, *medium*; and 0-30, *high*). Personal accomplishment, notably, was the only scale that was interpreted in an opposite numeric direction (than depersonalization and emotional exhaustion). The MBI-ES instrument concurrently does not provide a single burnout score.

The MBI-ES instrument employs a 7-point Likert type scale with frequency anchors ranging from 0, meaning *never*, to 6, for *every day*. Indicators of a high degree of burnout were indicated by high scores on the Emotional Exhaustion and Depersonalization scales and low scores on the Personal Accomplishment scale. A

medium degree of burnout was reflected in moderate scores on the three scales. Lastly, a low degree of burnout was reflected by low scores on the Emotional Exhaustion and Depersonalization scales and high scores on the Personal Accomplishment scale. Permission to use and reproduce the MBI-ES instrument was granted through Mindgarden (Appendix H).

Cronbach's alphas respectively were at .90, .79, and .71 for emotional exhaustion, depersonalization, and personal accomplishment (Aluja, Blanch, & Garcia, 2005). Test-retest correlations for the three scales were as follows: 0.82 for emotional exhaustion, 0.64 for depersonalization, and 0.80 for personal accomplishment, respectively (Maslach & Jackson, 1981). The MBI-ES showed strong correlations and appropriate concurrent validity with the Norwegian Teacher Self-Efficacy Scale (Skaalvik & Skaalvik, 2007) and good predictive validity with the Teacher Observation of Classroom Adaption-Checklist (TOCA-C; Koth, Bradshaw, & Leaf, 2009; Pas et al., 2010). Overall, the instrument has demonstrated good construct validity in many studies (Aluja et. al., 2005; Kokkinos, 2007; Schwab & Iwanicki, 1981). Demographic, specific norms for the MBI-ES have also been well-established (Schwab & Iwanicki, 1981).

Role Ambiguity and Role Conflict Scales

The Role Ambiguity and Role Conflict Scales instrument (see Appendix B) were developed by Rizzo et al. (1970). The instrument was used to assess role ambiguity and role conflict among special and general educators who co-taught at an inclusive model school. The Role Ambiguity and Role Conflict Scale had 30-items; however, only 14 items were needed (8 items for role conflict and 6 items for role ambiguity). The odd-

numbered items are intended to measure role conflict while the even-numbered items are for measuring role ambiguity (Tracy & Johnson, 1981). The questions on the scale that were used for role ambiguity respectively were questions numbered 2, 4, 10, 12, 20, and 26. Concurrently, the questions for role conflict that were used were numbered 5, 11, 13, 19, 21, 23, 25, and 27. Each respective scale was summed for scoring. The eight items on the role conflict scale were worded to emulate stressful conditions perceived in the role, wherein a high score on these items were indicative of role stress (Tracy & Johnson, 1981). The six items representing role ambiguity, on the other hand, had specific wording to represent comforting conditions perceived in the role (Tracy & Johnson, 1981). A low score on the role ambiguity scale was consistent with high ambiguity while high scores were consistent with low ambiguity (Tracy & Johnson, 1981). Summed scores for role conflict could range from 8 to 56 with higher scores (i.e., 56) representing high role conflict; while summed scores for role ambiguity could range from 6 to 42 with 42 being the highest score but reversely representing low role ambiguity.

The Appendix B lists the 14 items used to construct signs of role conflict and role ambiguity scales. All items were self-report measures using a 7-point, Likert-type scale format, ranging from *never true* to *always true* for both the role conflict and ambiguity scales. Evaluation of the role conflict and role ambiguity scales was consistent with the following: *never tru*e = 1, *rarely true* = 2, *sometimes but infrequently true* = 3, *neutral* = 4, *sometimes true* = 5, *usually true* = 6, and *always true* = 7. Rizzo's et al. (1970) role conflict and role ambiguity measures have been used extensively in literature (King & King, 1990) and have been found to be psychometrically sound (Schuler, Aldag & Brief,

1977; Smith, Tisak & Schmieder, 1993). Earlier studies (Cook, Hepworth, Wall, & Warr, 1981; House, Schuler, & Levanoni, 1983; Kelloway & Barling, 1990; Netemeyer, Johnston, & Burton, 1990; Schuler et al., 1977; Smith et al., 1993), and the most recent studies (Lath, 2010; Papastylianou et al., 2009) show support for the psychometric integrity of the two scales (Fried & Tiegs, 1995).

The Role Ambiguity and Role Conflict Scales instrument was selected based on its use in previous studies (Embich, 2001; Gonzalez-Roma & Lloret, 1998; Kelloway & Barling, 1990; Schwab & Iwanicki, 1981;) and was used by I, the researcher, in the current study as a predictor in levels of burnout as measured by the MBI-ES instrument in both special and general educators who co-taught. Papastylianou et al. (2009) reported strong correlations with the MBI and Role Conflict and Role Ambiguity Scales. Extensive reviews of the psychometric validity of the Role Conflict and Role Ambiguity Scale concluded that the factor structure of the items are consistent with the two scales, that it has adequate concurrent and predictive validity, and good reliability (Dubinsky & Hartley, 1986; Gonzalez-Roma, Lloret, 1998; Kelloway & Barling, 1990; Rizzo et al., 1970; Schuler et al., 1977; Smith et al., 1993; Tracy & Johnson, 1981). Cronbach's coefficient alpha for internal reliability was .84 for role conflict and from .79 for role ambiguity.

Procedure

To conduct research with the schools, a confirmation letter of approval from the Institution Review Board (IRB) was submitted to the Office of Assessment, Research, and Accountability. I, the researcher solicited up to 14 principals via an invitation letter

(Appendix E). Once approval was granted to the researcher, meetings were held with each of the principals separately to discuss details of the study. There were at least two conferences held, with each principal. The conferences are as follows: (a) one prior to study to discuss details and instructions and (b) another two weeks later to pick up the remaining extra-unused survey packets or to address concerns. Each principal was given survey questionnaires (MBI-ES and Role Ambiguity and Role Conflict Scales), demographic questionnaires, along with postage-paid envelopes that were self-addressed to me, the researcher. Principals were reminded to hold unused or extra survey packets until the final meeting, while teachers were reminded via an email from the Information Technology Department (to participating schools)/reminder letter to teachers (see Appendix F).

Consent and Confidentiality

A confidentiality form and consent form (Appendix D) explaining information about the study was included in every survey packet. A letter with instructions was also included in the survey packet explaining that participation was voluntary. The confidentiality form described the measures taken to protect participants without them having to identify themselves on the surveys. Participants also had the option of taking the survey packet home if they had concerns about management retaliation as a result of participating in the study and being truthful in their answers. This was a noted option in the introduction letter of the packet. The data yielded in this study was from participants who were aged 18 years or older. Permission to reproduce the MBI-ES survey questionnaire was obtained from Mindgarden Products, Inc., (see Appendix H); whereas,

authors Rizzo et al. (1970) authorized free use of the survey instrument Role Ambiguity and Role Conflict Scales (see Appendix G) and only asked me, the researcher to credit the source.

The respondents in this research were volunteers and remained anonymous for the sake of their privacy in the study. The respondents in the study did not have to include their names, their current school, or the grade they currently taught at the time of the study. Recommendations from the developers of the MBI instrument and Role Ambiguity and Role Conflict Scales insist on only examining and recording data as a group, not individually. In addition, respondents were identified as either special or general educators along with other characteristics representative of the sample through the demographic questionnaire in order to preserve their privacy. Study questionnaires and a flash drive containing data is being kept in a locked fireproof filing cabinet in a secure home office for 6 years. Data is also being stored on an encrypted computer that is password protected for 6 years. Raw data is available in tables in the study and by request to me, the researcher. All data regarding the study and study participants will be shredded, destroyed, and erased after 6 years. Each participant received an informed consent and confidentiality letter before data were collected and at the inception of the study.

Data Collection Procedure

Upon the principals' approval of the study, all special and general education teachers who co-taught had the option to participate in the study by retrieving a packet, which contained all the forms, including a demographic questionnaire that asked for their

current position (i.e., special or general educator) and other characteristics, the two questionnaire surveys (i.e., Role Ambiguity and Role Conflict Scales and MBI-ES), an informed consent letter, an introduction letter, an instruction letter, and a self-addressed, postage-paid envelope; all of which were available in their personal mailboxes at the school and at a lunch-break common area location. Teachers who chose to participate, their names were withheld, and only data representative as a group were reported. The entire procedure for co-teachers took approximately thirty minutes. Twenty minutes was needed to fill out the two surveys by circling the answers according to their feelings with a pen or pencil and 10 minutes to read the instructions to total 30 minutes being needed. Each participant was instructed to mail questionnaires via the self-addressed, postage-paid envelope that was accepted by me, the researcher for up to two weeks. Once the two weeks had lapsed, all teachers at the participating respective schools were contacted via email (Appendix F), (through Information Technology Department to participating schools). This was done to address concerns, remind teachers who had already taken a packet to turn them in to me, the researcher. The second phone call was made to principals to discuss further concerns, recruit more participants, and pick up remaining copies.

Data Analysis

All data analyses were performed using SPSS version 17.0. The data for this study included the MBI-ES, Role Conflict, and Ambiguity Scales. Multiple regression analysis (MRA) was used to assess relationships between the predictor variables (i.e., role ambiguity, role conflict) and the criterion variables of burnout (i.e., emotional

exhaustion, depersonalization, and personal accomplishment). MRA allowed for an examination of two sets of variables: (a) predictor variables that are distributed continuously and (b) one criterion variable that is distributed continuously. The strength of each predictor was estimated, in order to shed light on how one variable accounted for variation in the criterion variable (Gravetter & Wallnau, 2009).

Based upon the response to the demographic questionnaire, there were two separate samples consisting of general education and special education teachers. Descriptive statistics were presented for each sample. Characteristics of the study sample were presented using descriptive statistics for the demographic variables, as well as the independent and dependent variables of the study. For the categorical variables (all demographic variables except for years of service, and years in current position), summary statistics were reported in terms of percentages and frequency counts for each level of the variable. For the continuous variables (years of service and length of service, role ambiguity, role conflict, emotional exhaustion, depersonalization, and personal accomplishment), means and standard deviation were reported. Any data points that were more than 3.0 standard deviations from the mean were considered outlier. For all variables, the maximum and minimum values were inspected to check that there were no extreme data values that exceed physical possible or theoretical limits.

Separate regressions were performed to analyze each of the three burnout scales in relation to the predictor variables. Because there were three regression analyses (one for each burnout scale) on each of the two samples, a total of six regression models were

estimated. Each regression model contained two predictor variables (role ambiguity and role conflict) and one criterion variable (one of the three burnout scales).

Interpretation of the results of each regression analysis was based upon the following information:

1. The sign and magnitude of the standardized regression coefficients for the two predictor variables (role ambiguity and role conflict) will indicate the direction and strength of the relationship with the criterion variable (i.e.; the burnout scale being analyzed);
2. For each regression coefficient, its p-value will indicate whether there is a statistically significant relationship between predictor variable and the criterion variable;
3. The p-value for the significance of each regression model will indicate the joint (or multivariate) significance of the two predictor variables in the regression equation.

To reduce the overall level of type 1 error associated with testing the significance of two predictor variables in six separate regression models, the following procedures were adopted:

1. A significance level of .01 was adopted instead of the usual level of .05;
2. The p-value for each regression model as whole was examined before examining the p-values for the two regression coefficients; the p-values for the regression coefficients were tested for statistical significance *only when* the p-value for the regression model is <.01.

Before beginning the statistical analyses, all data were checked for correctness and validity of assumptions required for the multiple regression analyses. Data correctness were checked by comparing values entered into SPSS against the values on the questionnaires filled out by the research participants, and by making sure that total scores on each of the questionnaire scales were within the valid range for each scale. Multiple regression analysis was based upon the assumptions of linearity, homoscedasticity, and normality (Deveaux, Velleman, & Bock, 2006). The assumption of linearity meant that the relationship between each predictor and criterion variables should approximately follow a straight line. This assumption was checked by examining the scatter plots between each pair of predictor and criterion variables. The assumption of homoscedasticity meant that the vertical spread of data points around the regression line was the approximate same for all values of the predictor variables; violation of this assumption was indicated if the scatter plot tended to "fan out" (Deveaux, et al., 2006). Finally, the assumption of normality referred to the distribution of the residual errors in each regression model. This assumption was violated if the error distribution was skewed or if a few large outliers were present. These assumptions were tested in regard to all data for this study on both the predictor and criterion variables. If significant outliers were detected, based upon studentized residuals from the regression analyses, then the analyses were performed with the outlying observations deleted. If plots of the data indicated strong skewness or they revealed a nonlinear relationship between variables or substantial heteroscedasticity, then an appropriate data transformation were applied, for example by taking logarithms or square roots.

Validity

The MBI-ES showed strong correlations and appropriate concurrent validity with the Norwegian Teacher Self-Efficacy Scale (Skaalvik & Skaalvik, 2007) and good predictive validity with the Teacher Observation of Classroom Adaption-Checklist (TOCA-C; Koth, Bradshaw, & Leaf, 2009; Pas et al., 2010). Additionally, the instrument had demonstrated good construct validity in many studies (Aluja et. al., 2005; Kokkinos, 2007; Schwab & Iwanicki, 1981).

With extensive reviews of the psychometric validity of the Role Conflict and Role Ambiguity Scales concluding that the factor structure of the items were consistent with the two, thus showed that the instrument was adequate- concurrent and predictive validity (Dubinsky & Hartley, 1986; Gonzalez-Roma, Lloret, 1998; Kelloway & Barling, 1990; Rizzo et al., 1970; Schuler et al., 1977; Smith et al., 1993; Tracy & Johnson, 1981). Kelloway and Barling (1990) further concluded in their study that sufficient support existed for the construct validity of the role conflict and role ambiguity scales as developed by Rizzo et al. (1970)

Additionally, in an attempt to address trustworthiness concerns, through an agreement with the principal at each school, the cover letter, the ability to seal, self mail the surveys in a postage stamped, and self-addressed envelope, it was hoped that subjects trusted the anonymity of their responses to the burnout questionnaire.

There was no way to know exactly what bias towards terms or influence that a path of contact through the principal at each school may have had on any of the subjects. However, the direct return of the surveys to me, the researcher in self-addressed envelope

was considered the subjects confidence of assurance. This study was only valid to one school district and did not represent co-teachers in other districts throughout the United States. In the future, additional studies may need to be conducted with other groups with different characteristics in other settings (Creswell, 2009).

Summary

Chapter 3 discussed the research methodology for a quantitative study of how role ambiguity, role conflict, and type of teacher affect co-teachers' level of burnout. This study used a sample of 70 or more participants in each group who completed three instruments: a demographic questionnaire, the MBI-ES, and the Role Ambiguity and Role Conflict Scales. Data analysis involved computing descriptive statistics and performing a regression/correlation to test the relationship of predictor variables (role conflict, role ambiguity, and type of teacher), and the criterion variable of co-teachers' levels of burnout (emotional exhaustion, depersonalization, and personal accomplishment). Data analysis is available in Chapter 4 for review.

Chapter 4: Results

Introduction

The purpose of this quantitative research study was to examine whether relationships existed between role conflict and role ambiguity and burnout among special and general educators who co-taught. Role conflict and role ambiguity were measured using the Role Conflict and Role Ambiguity Scales (Rizzo et al., 1970) while burnout was measured using the three scales (i.e., emotional exhaustion, depersonalization, and personal accomplishment) of the MBI-ES (Maslach & Jackson, 1981). The sample consisted of special and general education teachers who co-taught or collaborated with another teacher or specialist at an urban elementary school. Statistical analyses of the data were conducted using a multiple regression model to explore any possible relationships between role conflict, role ambiguity, and burnout. Multiple regressions was used to analyze the data because regression analysis assists in understanding how the typical value of the criterion variable changes when any one of the independent variables are varied, while the other independent variables are held fixed (i.e., the values of each variable were not limited to a certain range, but were continuous within a certain interval). Two research questions along with their hypotheses were formulated to guide the analysis. These were as follows:

Research Question 1: Do role ambiguity and role conflict, as measured by the Role Ambiguity and Role Conflict Scales, predict burnout (i.e., emotional exhaustion, depersonalization, or personal accomplishment), as measured by the MBI-ES instrument, in special education co-teachers?

*H*1a$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1a$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1b$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1b$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1c$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1c$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers.

Research Question 2: Do role ambiguity and role conflict, as measured by the Role Ambiguity and Role Conflict Scales, predict burnout (i.e., emotional exhaustion, depersonalization, or personal accomplishment), as measured by the MBI-ES instrument, in general education co-teachers?

$H2a_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers.

$H2a_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers.

$H2b_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in general education co-teachers.

$H2b_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict depersonalization, as measured by the MBI-ES instrument, in general education co-teachers.

$H2c_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in general education co-teachers.

$H2c_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict personal accomplishment, as measured by the MBI-ES instrument, in general education co-teachers.

This chapter begins with frequency tables to summarize the demographic information for two separate samples consisting of special education co-teachers and general education co-teachers. The frequency tables are followed by the descriptive statistics of the study variables. The multiple regressions are a parametric test and require

the data to be normally distributed. Subsequently, the results of the multiple regressions that addressed the research questions were presented.

Data Collection

The research was conducted at eight of the targeted elementary schools. Principals at 14 schools were contacted, and the principals were asked to give permission to me, the researcher to survey special and general educators in their respective schools. Accordingly, 14 schools were to be included in the study; however, only eight principals granted permission, returned authorization letters, and/or confirmed via e-mail allowing this researcher to survey their teachers. Survey packets were placed in each teacher's mailbox; thus giving him or her one to six weeks to respond. A reminder email was sent to participants at midpoint (three weeks). Data were collected from December 2013 to February 2014. At the conclusion of the survey collection, 145 teachers completed and returned the surveys. To minimize attrition and ensure that questionnaires were completed correctly; hence, I performed the data collection procedure, only using completed surveys for analysis. There were no discrepancies and the data collection process was conducted as planned. There were 72 being self-identified special education teachers and 73 being self-identified general education teachers, which exceeded the minimum number of 140 total participants (70 special education teachers and 70 general education teachers), proposed in the a-priori power analysis. Therefore, the sample was large enough to identify statistically significant relationships in the multiple regression analysis.

Description of the Sample

Demographic Characteristics

A majority of the sample comprised Caucasian, female teachers. Among the 72 special education teachers in the sample, 98.6% (71) were female and 83.3% (60) were Caucasian. The special education teachers in the sample had an average of 10.79 (*SD* = 6.50) years of teaching experience and an average of 6.17 (*SD* = 4.32) years in their current teaching position at the same school. The characteristics of the general education teachers in the sample were similar. Among the 73 general education teachers in the sample, 95.8% (69) were female and 83.6% (61) were Caucasian. The general education teachers in the sample had an average of 11.45 (*SD* = 6.40) years of teaching experience and an average of 5.95 (*SD* = 4.54) years in their current teaching position at the same school. A summary of the demographic characteristics is presented in Table 1.

As shown in Table 1, Caucasian females comprised a majority of the sampled participants in both special and general education samples and were a dominant representation in other studies, Santavirta et al. (2007) had a sample that consisted of 75% female, while 79% of the participants in Kokkinos's (2007) study were female.

In addition, in the United States, Caucasians make up about 86% of the teacher workforce (Ladson-Billings, 1999; Lara, 1994). Concurrently, women are now largely accounting for 72% of the teaching population (Suarez-Orozco, 2000). Therefore, it can safely be said that Caucasian females have long represented the dominant face of American teachers in urban schools (Grimshaw, 1998; Marx, 2001).

Table 1

Descriptive Statistics on the Demographics of the Study Sample by Type of Teacher

		Special education		General education [a]	
Variable		*n*	%	*n*	%
Gender	Female	71	98.6	69	95.8
	Male	1	1.4	3	4.2
	Total	72	100	72	100
Ethnicity	White	60	83.3	61	83.6
	African American	12	16.7	8	11.0
	Other			3	4.1
	Total	72	100	72	100

	Special education				General education			
	Min.	Max.	*Mean*	*SD*	Min.	Max.	*Mean*	*SD*
Years Teaching Experience	1	25	10.79	6.50	1	26	11.45	6.40
Years in Current Position	0	23	6.17	4.32	0	21	5.95	4.54

Note. [a] For the general education group $n = 73$. There was one participant who did not respond to the gender and ethnicity questions.

Collaboration Characteristics

The participants were asked to select all of the special services they utilized for one or more of the students in their classes, through collaboration with a specialist or specialists outside of the classroom. Their responses are presented in Table 2. The most utilized special service for special education teachers was English assistance and the most utilized special service for general education teachers was reading assistance. Of the special education teachers, 65.3% (47) had utilized English assistance services for one or more of their students, while 53.4% (39) of the general education teachers had utilized reading assistance services for one or more of their students. A large number of the general education participants also utilized English assistance services and mathematics assistance services. Among general education teachers, 46.6% (34) had utilized English assistance services for one or more of their students, and 45.2% (33) of the general education teachers had utilized mathematics assistance services for one or more of their students.

The participants were then asked to identify their style of collaboration with other teachers or specialists within or outside of the classroom. Among special education teachers, the most common style was coach collaboration, where both the special and general educator took turns in coaching one another in each other's area of the curriculum; thus with 45.8% (33) utilizing this style of collaboration. The second most common style of collaboration among special education teachers was something other than the options presented, full-time inclusion teacher consisting of seven or more hours a day with both the special and general educator in the same classroom, of which 40.3%

(29) of the surveyed special education teachers reported utilizing. Among general education teachers, the most common style was team collaboration, where instructional tasks were shared equally, but were not happening in the same classroom with 72.6% (53) reporting use of this style in collaboration, followed by the consultant style, where the special educator served as a consultant, helping out as needed, with 21.9% (16) utilizing this style of collaboration. Notably, special educators had to contend with sharing a classroom as with full-time inclusion or consequently being utilized as a consultant while general educators had their own classroom and utilized specialists outside of the classroom as needed, thus still functioning in a collaborative effort. On a small note, it was rare for a special educator who had their own classroom to utilize services outside the classroom as with team style while it was very common for the general educator. The responses are presented in Table 2.

Table 2

Descriptive Statistics on Utilized Services and Current Assignment by Type of Teacher

		Special education [a]		General education [b]	
Variable		*n*	%	*n*	%
Utilized special services	English	47	65.3	34	46.6
	Behavioral	29	40.3	15	20.5
	Reading	40	55.6	39	53.4
	Occupational	24	33.3	14	19.2
	Mathematics	23	31.9	33	45.2
	Physical	6	8.3	3	4.1
	Other	3	4.2	12	16.4
	None			3	4.1
Style of collaboration	Team	15	20.8	53	72.6
	Consultant	24	33.3	16	21.9
	Coach	33	45.8	15	20.5
	Other	29	40.3	5	6.8
	No specific type			3	4.1

Note. Participants were asked to select all that applied for each question. Percentages represent the number of affirmative responses within each teaching group.
[a] $n = 72$. [b] $n = 73$.

Description of the Study Variables

The descriptive statistics of the study variables are presented in this section (see Table 3).

Table 3

Descriptive Statistics for the Study Variables by Group

Scale	Special education				General education		
	Number of items	*n*	Scale score†* .	Average scale score per item‡*	*n*	Scale score†*.	Average scale score per item‡*
Role conflict [a]	8	72	23.4±7.1	2.93±0.90	73	24.6±8.20	3.08±1.02
Role ambiguity [a]	6	72	33.5±4.9	5.59±0.82	73	32.74±5.2	5.46±0.88
Emotional exhaustion [b]	9	72	21.6±9.9	2.41±1.11	73	22.8±11.9	2.54±1.33
Depersonalization [b]	5	72	2.8±2.7	0.58±0.56	69	3.95±6.01	0.53±0.56
Personal accomplishment [b]	8	70	41.5±4.9	5.25±0.45	70	40.5±6.05	5.17±0.61

Notes.
[a] Possible item responses ranged from 1-7.
[b] Possible item responses ranged from 0-6.
(-) Scores are interpreted in the opposite direction. Low levels of role ambiguity are indicated by high scores on the scale. High personal accomplishment scores indicate low levels of burnout.
†Based on the sum of the items in each scale.
‡ Based on the sum of the items in each scale, divided by the number of items.
* Data reported as mean±standard deviation.

The two independent variables used in testing the six study hypotheses were created from questions on the Role Ambiguity and Role Conflict Instrument (RARC). The role conflict and role ambiguity questions were answered on a scale of 1 – 7. For the role conflict scale, higher scores were indicative of role stress. Table 3 presents means and standard deviations of scale total scores, computed by summing the responses on the items in the scale. Also shown are means and standard deviations of scale average scores,

based on dividing the scale total score by the number of items in the scale. Table 3 also presents the average response on each scale, on the same response scale as the individual items for the scale.

On the role conflict scale, scale average scores were 2.93 for special education teachers and 3.08 for general education teachers, with a 3 on the scale meaning *sometimes but infrequently true*. Hence, levels of role conflict in both groups of teachers appeared to be *low*. On the role ambiguity scale, items were worded so that high scores indicate low role ambiguity. For example, the first item on the scale is *I feel certain about how much authority I have*. Scale average scores were 5.59 among special education teachers and 5.46 among general education teachers, with a score of 5 corresponding to *sometimes true* and 6 corresponding to *usually true*. Hence, the two groups of teachers indicated that most of the time they did not experience role ambiguity.

The three dependent variables used in testing the six study hypotheses were created from questions on the Maslach Burnout Inventory Educator's Survey (MBI-ES). The questions used to create the emotional exhaustion, depersonalization, and personal accomplishment scales were answered on a scale of 0 – 6, with 0 meaning *never* and 6 meaning *every day*. In both samples of teacher, emotional exhaustion tended to be *low*. Among the special education teachers the mean scale average score was 2.41 (*SD* = 1.11) indicating that emotional exhaustion occurred about once a month on average; among the general education teachers the mean scale average score was 2.54 (*SD* = 1.33), indicating that emotional exhaustion occurred a few times a month on average. Depersonalization occurred an average of a few times a year or less, as indicated by a mean scale average

score of .58 (*SD* = .56) for the special education teachers and a mean scale average score of 0.53 (*SD* = .56) for the general education teachers. Feelings of personal accomplishment tended to occur a few times a week on average, with a mean scale average score of 5.26 (*SD* = .45) for the special education teachers and a mean scale average score of 5.17 (*SD* = .61) for the general education teachers.

The maximum and minimum values were also inspected for outliers in the data. Outliers were found and noted as the following: two special education teachers and two general education teachers each had a score of 5.2 for depersonalization while three general education and two special educators had a score of 3.0 for personal accomplishment. Lastly, there were no participants with outliers for emotional exhaustion. Pearson Correlations between study variables for each group are presented in Tables 4 and 5.

Table 4

Pearson Correlations Between Study Measures for Special Education Teachers

	2	3	4	5
1. Role Conflict	-.26*	.53**	.26*	-.19
2. Role Ambiguity	--	-.19	-.25*	.39**
3. Emotional Exhaustion	--	--	.13	-.12
4. Depersonalization	--	--	--	-.24
5. Personal Accomplishment	--	--	--	--

Note. * $p < .05$. ** $p < .01$.

Table 5

Pearson Correlations Between Study Measures for General Education Teachers

	2	3	4	5
1. Role Conflict	-.45**	.63**	.30*	-.24*
2. Role Ambiguity	--	-.53**	-.25*	.48**
3. Emotional Exhaustion	--	--	.37**	-.48**
4. Depersonalization	--	--	--	-.31*
5. Personal Accomplishment	--	--	--	--

Note. * $p < .05$. ** $p < .01$.

Reliability of the Study Variables

To assess the internal consistency reliability of the study variables, Cronbach's alpha was calculated for each of the scales used to test the study hypotheses. All of the variables used to test the study hypotheses were found to be acceptable measures, according to the generally accepted minimum of .70 (Kline, 2000), with the exception of the depersonalization scale of the MBI-ES. The depersonalization scale had an alpha of .553 and would normally not be considered a reliable measure. However, the MBI-ES is an empirically established instrument that has yielded internally reliable scales for similar studies. In addition, Cortina (1993) pointed out that because the squared number of items in the scale was part of the equation used to calculate alpha, alpha values varied depending on the number of items in the scale. For these reasons, the scale was still used

in testing the study hypotheses. Cronbach's alpha for each of the study variables is presented in Table 6.

Table 6

Cronbach's Alpha Measures of Internal Consistency Reliability of the Study Variables

	Central tendency of the study variables overall and by group	
Variable	No. items	α
Role conflict	8	.780
Role ambiguity	6	.801
Emotional exhaustion	9	.872
Depersonalization	5	.553
Personal accomplishment	8	.714

Assumption Testing

Before testing assumptions, the data were examined for the presence of outliers. Outliers were identified by standardizing the study variables and examining the standardized variables for scores that were in excess of 3 standard deviations from the mean. Again, four depersonalization scores and five personal accomplishment scores were more than three standard deviations from the mean and were removed from the dataset. Only the violating scores were removed. Scores in other variables for the same participants were used in the hypothesis testing.

Since multiple linear regression analysis was used to test the study hypotheses, the assumptions of multiple linear regressions were assessed. The three assumptions assessed were the assumptions of normality, linearity, and homoscedasticity. The

assumption of normality was assessed by examining histograms of the frequency distribution of each of the study variables used in each of the hypotheses: role conflict, role ambiguity, emotional exhaustion, depersonalization, and personal accomplishment. If the distribution of points was bell-shaped, the assumption of normality was considered met. The assumption of linearity and homoscedasticity were assessed by examining scatterplots of the standardized residuals against the standardized predicted values requested in the regression output for each regression used to test each hypothesis. If the dispersion of points about the line was not in the shape of a curve and did not form a cone-shape at either end of the distribution, the assumptions of linearity and homoscedasticity were considered met. In addition, if the points in the scatterplots were distributed randomly throughout the length of the mean line and did not form a curve. The assumption of linearity was considered met.

Assumption of Normality

The assumption of normality was assessed by examining histograms of the frequency distribution of scores for each of the variables used in the regression analysis. The frequency distribution of scores for each of the study variables within each group (special education and general education) did resemble a bell-shaped curve with the exception of the depersonalization. Concurrently, the representation was not a perfect bell-shaped curve. However, it was observed for all study variables that the values were low relative to the maximum value. To improve the shape of the distribution of scores and assist in meeting the assumption of normality, data transformations were attempted. Four data transformation were attempted: square root, natural logarithm, common

logarithm, and inverse. Histograms of the transformed scores were examined for improvements in the distribution of scores. The transformed scores were also used in the regression analyses to test the study hypotheses, but the results mirrored those of the regressions with the original distributions. Ultimately, the data transformations did not improve the distribution of scores enough to justify the sacrifice in interpretability of the beta coefficients in the regression analysis. Therefore, the original distributions were used in the analysis.

In addition to the histogram, the skewness and kurtosis statistics of the data for each study variables were also obtained. The results of the normality testing through the skewness and kurtosis of the data of each study variable were summarized in Table 7. To determine whether the data follows a normal distribution, skewness statistics greater than three indicated strong non-normality while kurtosis statistics between 10 and 20 also indicated non-normality (Kline, 2005). Looking at Table 7, the skewness statistic values of the study variables enumerated ranged between -.610 and 1.171 for special education teachers and -.699 and 1.245 for general education teachers. Concurrently, for kurtosis values ranged between -.740 and 2.324 for special education teachers and -.1.071 and 2.167 for general education teachers. The skewness and kurtosis statistics of all the study variables fell within the criteria enumerated by Kline (2005) indicating that all the data of the study variables did not strongly deviate from a normal distribution. The multiple linear regression analysis was conducted, since data of the study variables exhibited normal distribution and did not include outliers. The histograms used to determine the normality of the study variables are presented in Figures 1-10.

Table 7

Skewness and Kurtosis for Study Variables by Type of Teacher

	Skewness and kurtosis of study variables by group			
	Special education		General education	
Variable	Skewness	Kurtosis	Skewness	Kurtosis
Role conflict	.156	-.153	.042	-.967
Role ambiguity	-.610	-.740	-.699	-.464
Emotional Exhaustion	-.137	-.009	.485	-.150
Depersonalization	1.171	2.324	1.245	2.167
Personal Accomplishment	-.450	-.477	-.298	-1.071

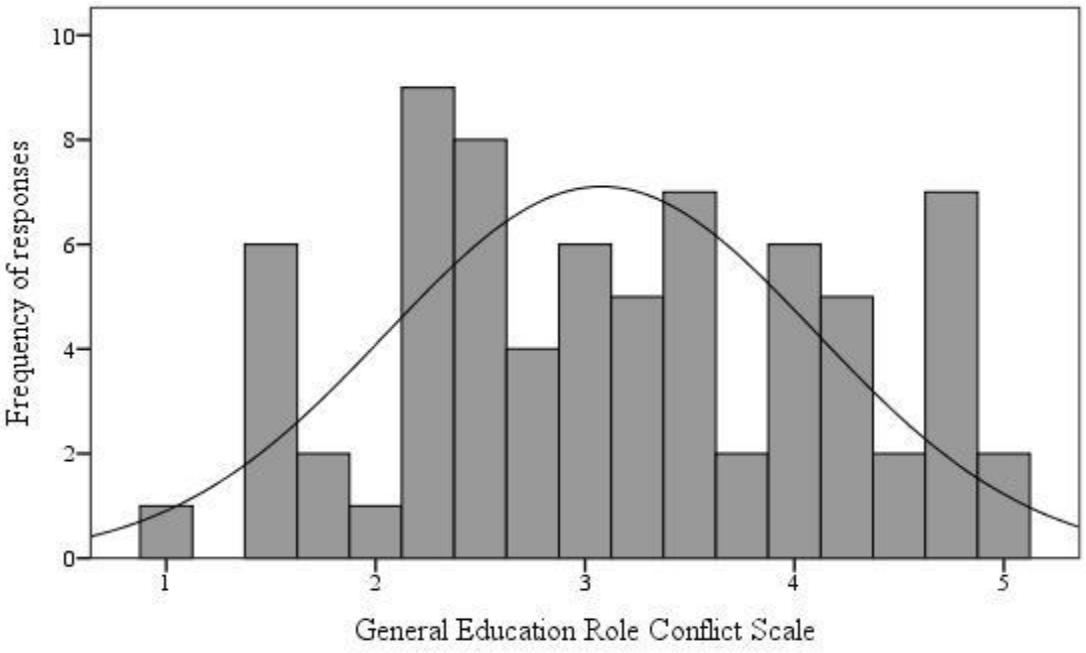

Figure 1. Histogram of the frequency distribution of general education role conflict scores.

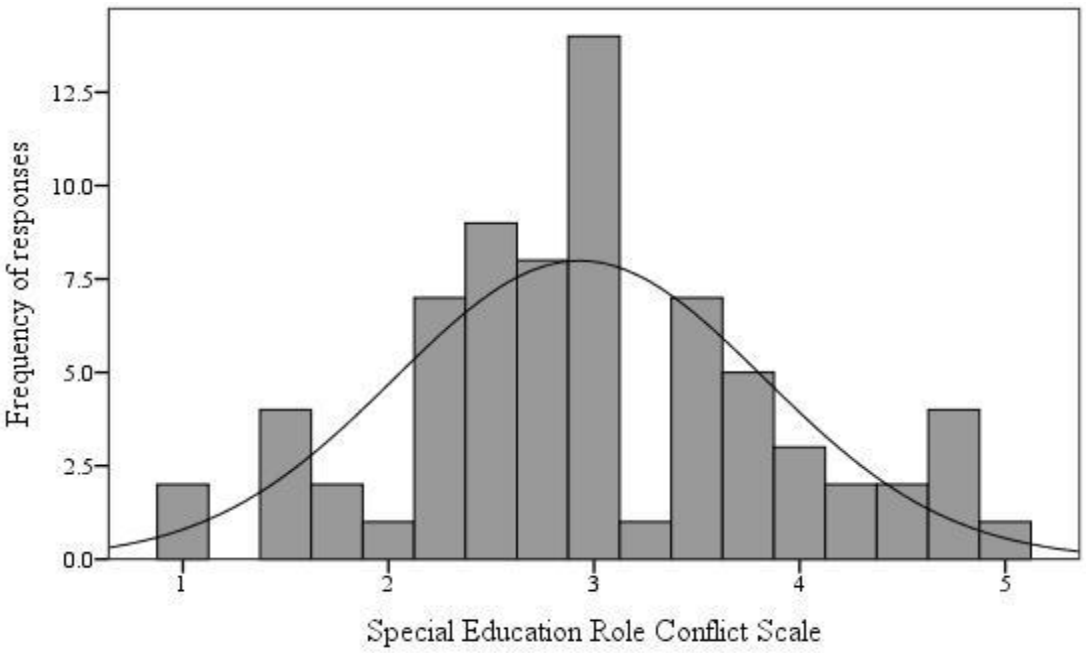

Figure 2. Histogram of the frequency distribution of special education role conflict scores.

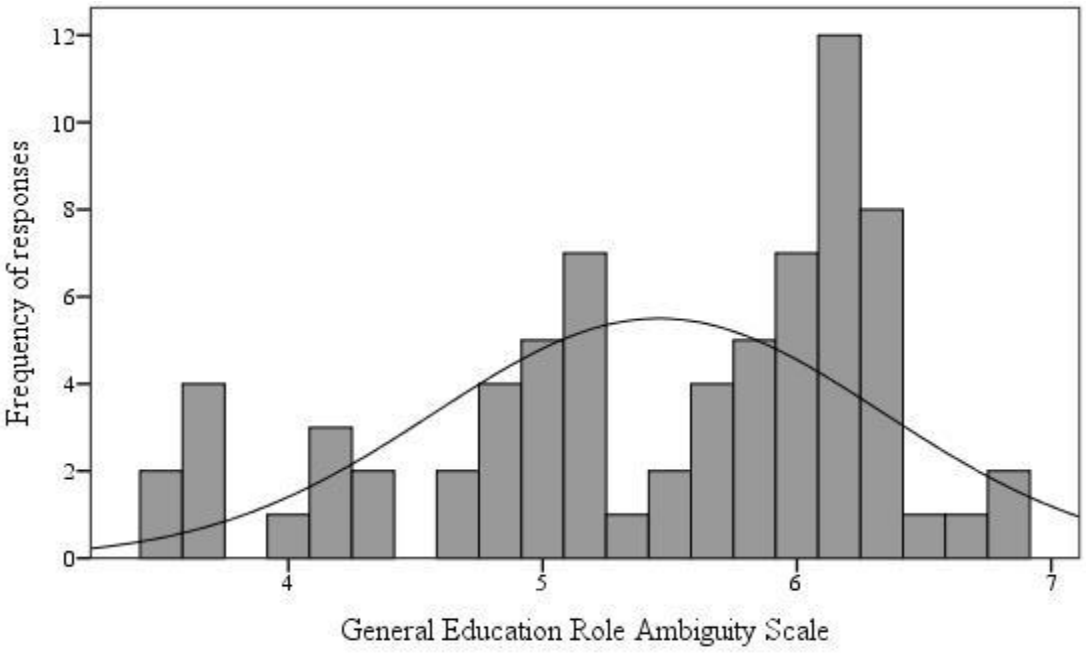

Figure 3. Histogram of the frequency distribution of general education role ambiguity scores.

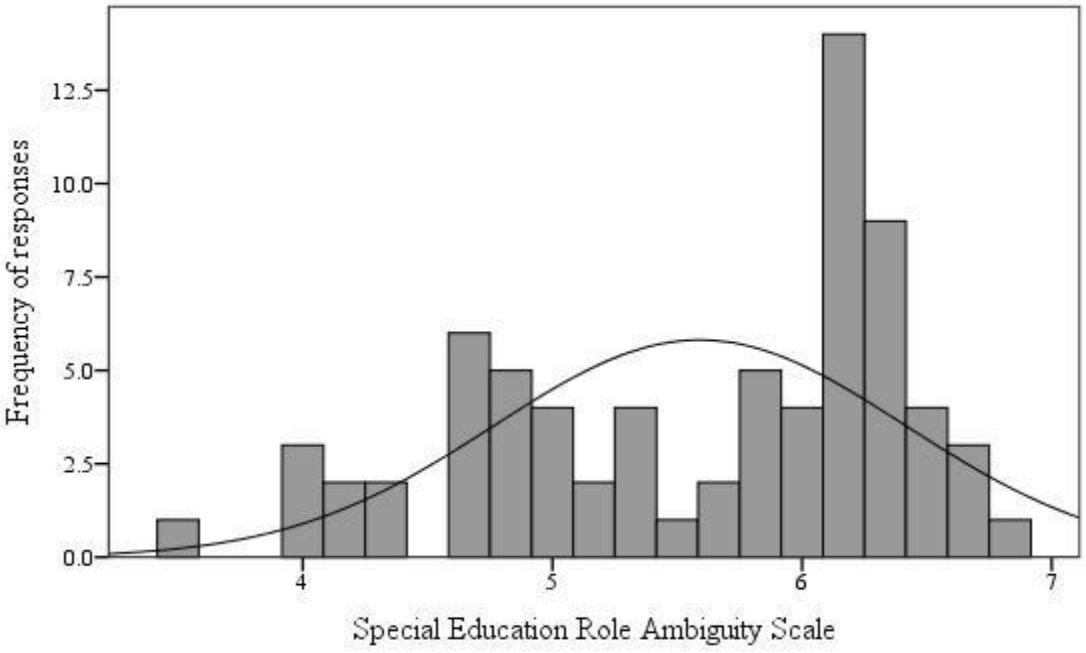

Figure 4. Histogram of the frequency distribution of special education role ambiguity scores.

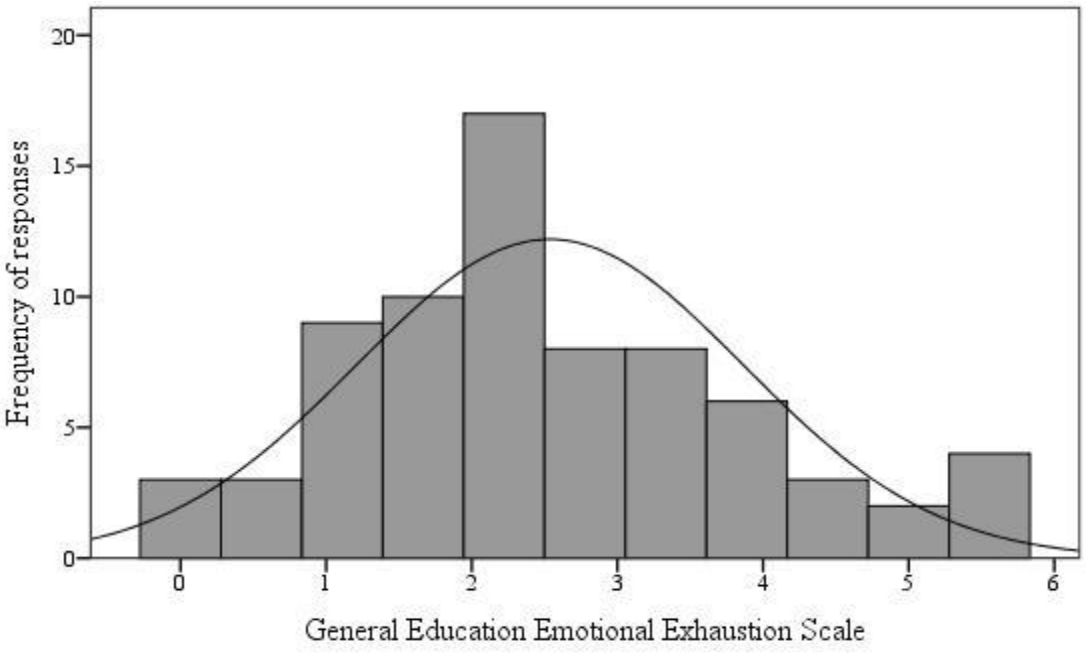

Figure 5. Histogram of the frequency distribution of general education emotional exhaustion scores.

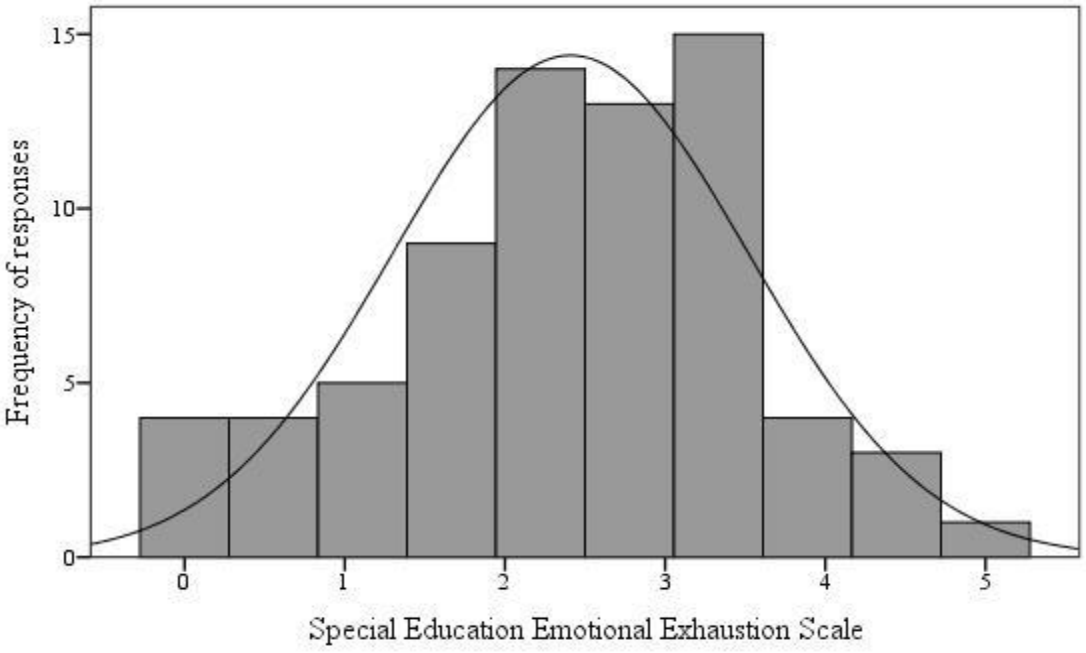

Figure 6. Histogram of the frequency distribution of special education emotional exhaustion scores.

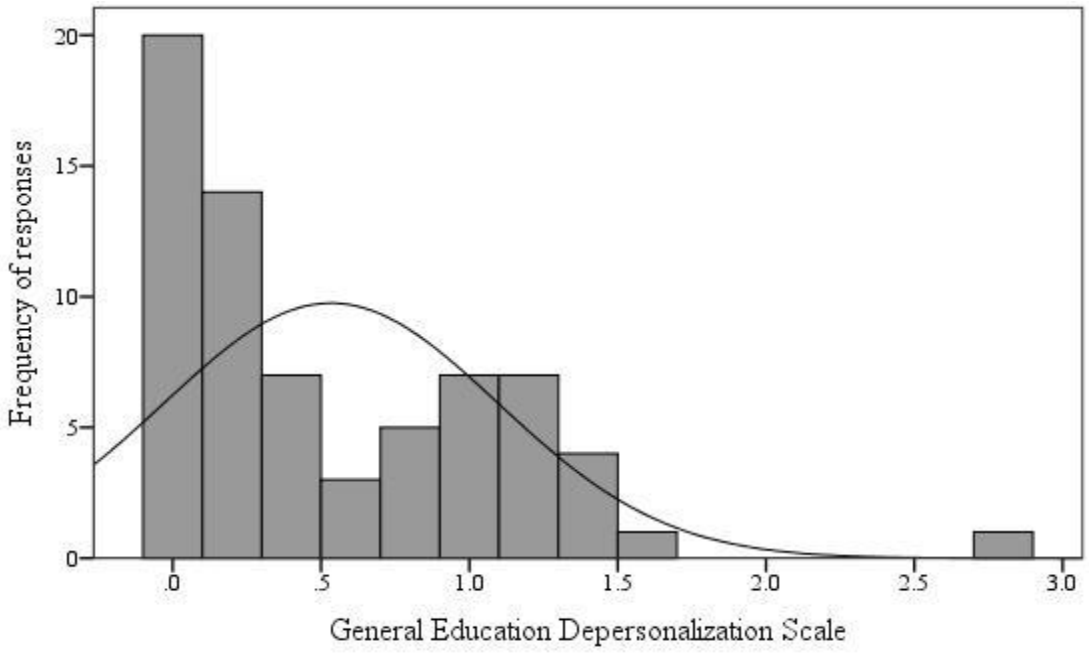

Figure 7. Histogram of the frequency distribution of general education depersonalization scores.

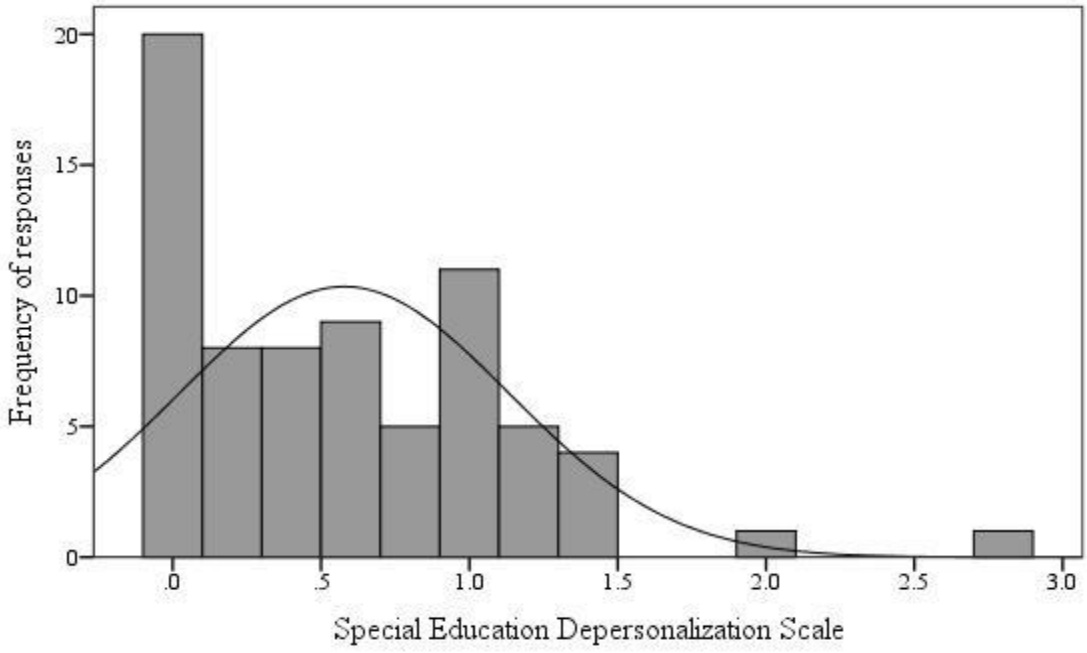

Figure 8. Histogram of the frequency distribution of special education depersonalization scores.

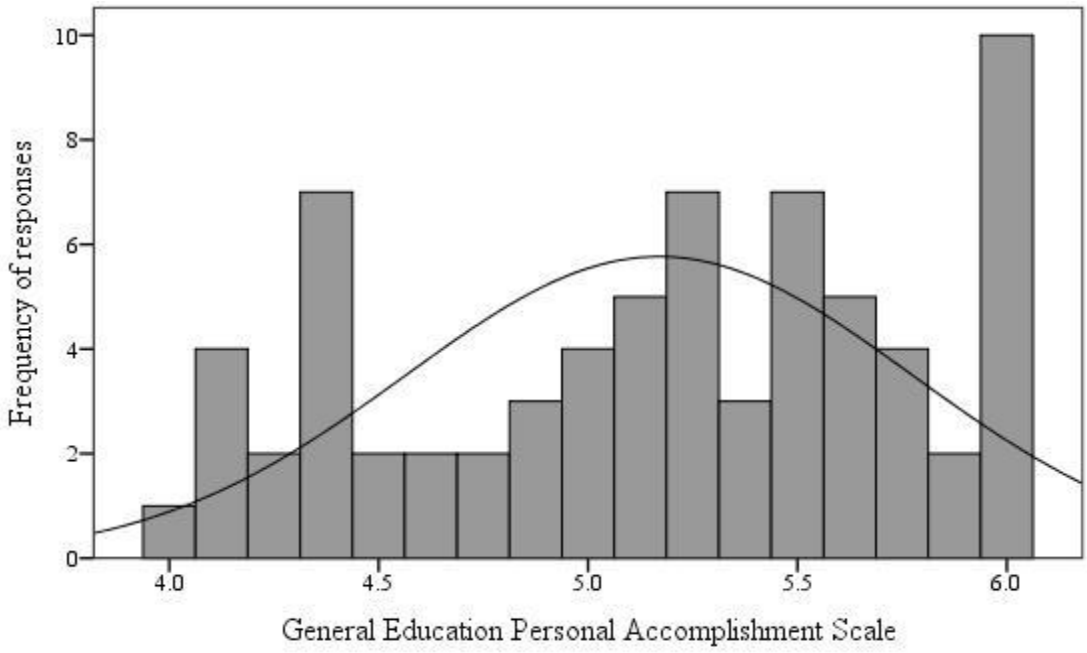

Figure 9. Histogram of the frequency distribution of general education personal accomplishment scores.

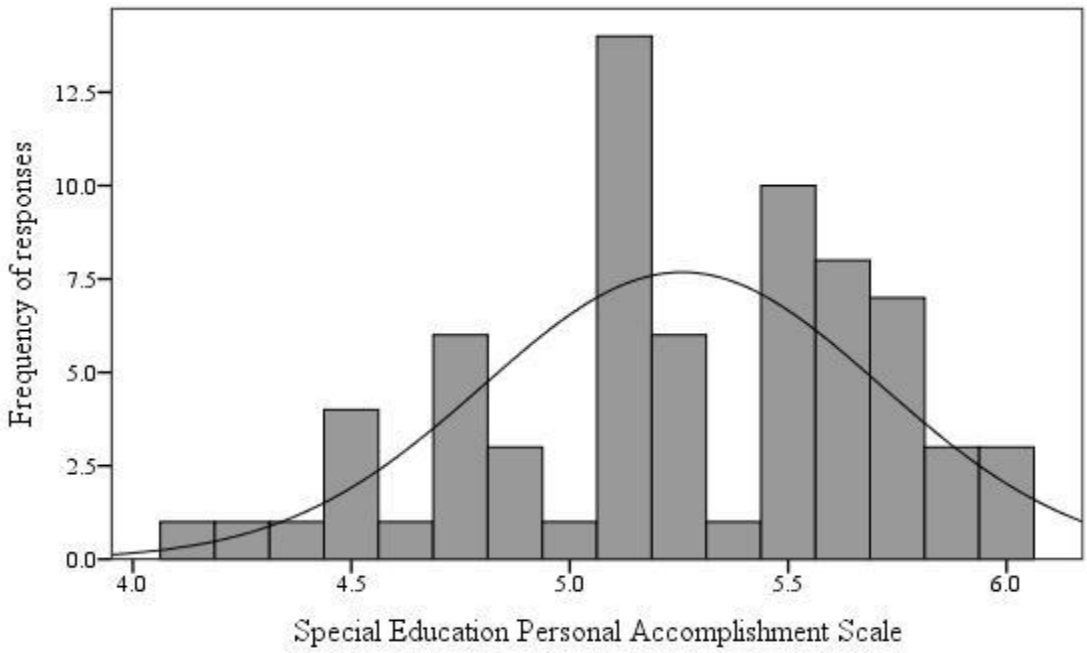

Figure 10. Histogram of the frequency distribution of special education personal accomplishment scores.

Assumptions of Linearity and Homoscedasticity

The assumption of linearity and homoscedasticity were assessed by examining scatterplots of the standardized residuals against the standardized predicted values: a scatterplot requested in the output of each of the regressions used to test the study hypotheses. If the assumption of linearity was violated, the distribution of points formed a curve or s-shape. If the assumption of homoscedasticity was violated, the distribution of points formed a cone or funnel in the distribution of points. The scatterplots used to assess the assumptions of linearity and homoscedasticity are presented in Figures 11-16.

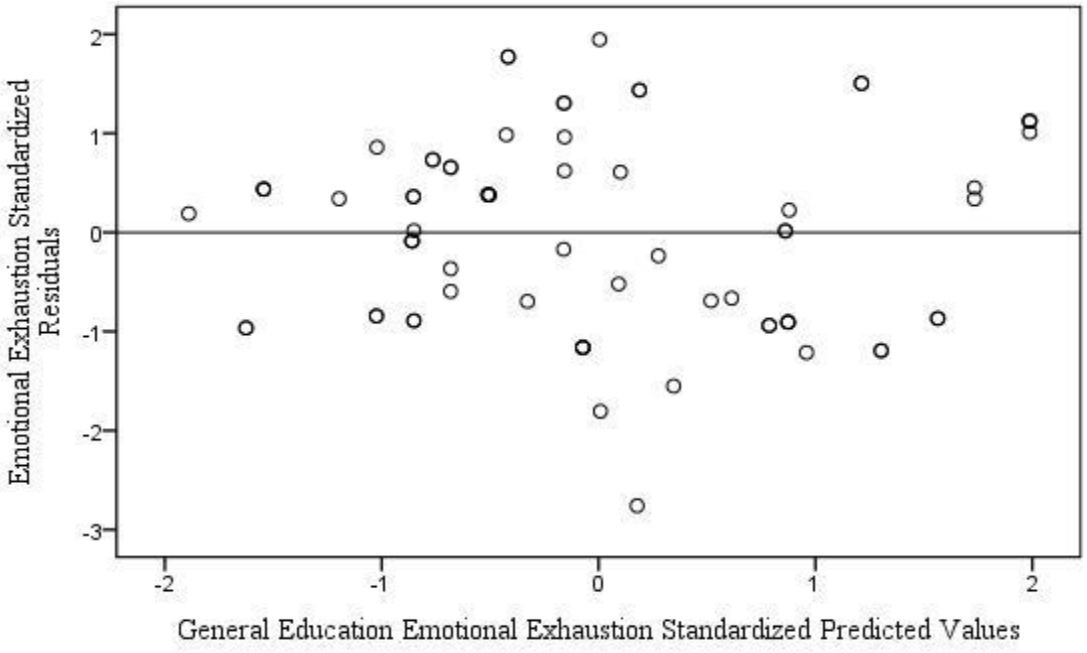

Figure 11. Scatterplot of general education emotional exhaustion standardized residual values against standardized predicted values.

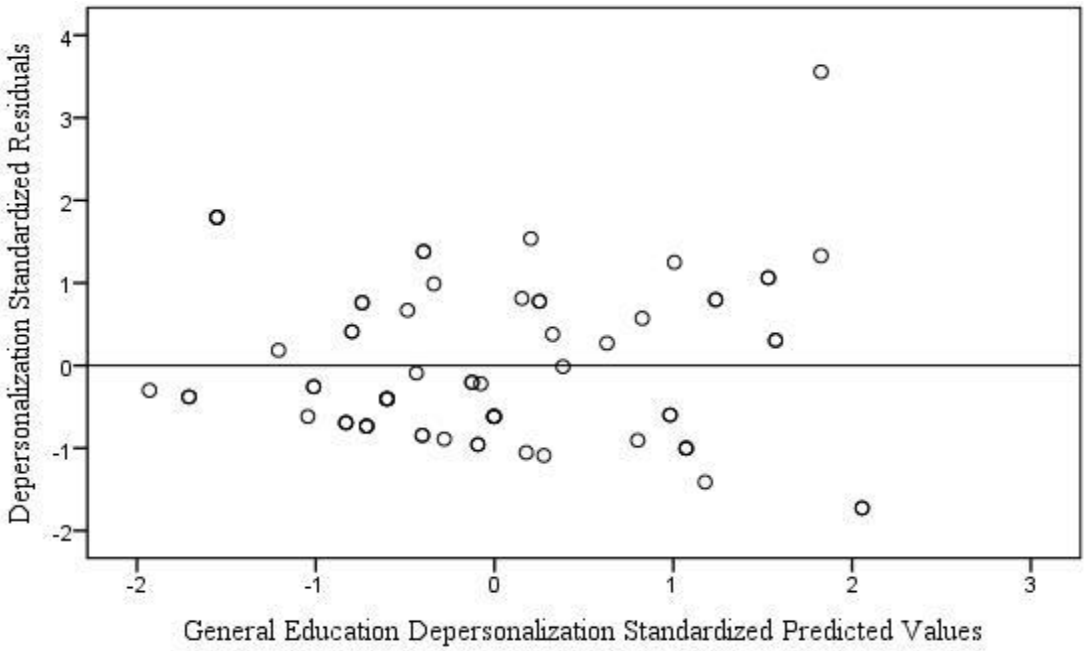

Figure 12. Scatterplot of general education depersonalization standardized residual values against standardized predicted values.

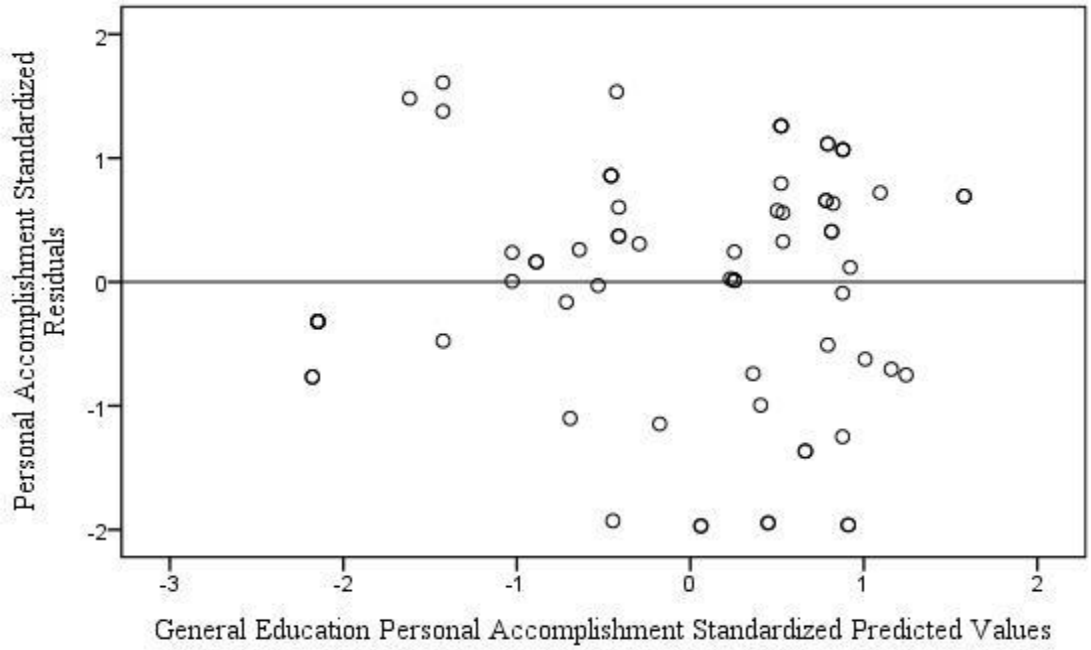

Figure 13. Scatterplot of general education personal accomplishment standardized residual values against standardized predicted values.

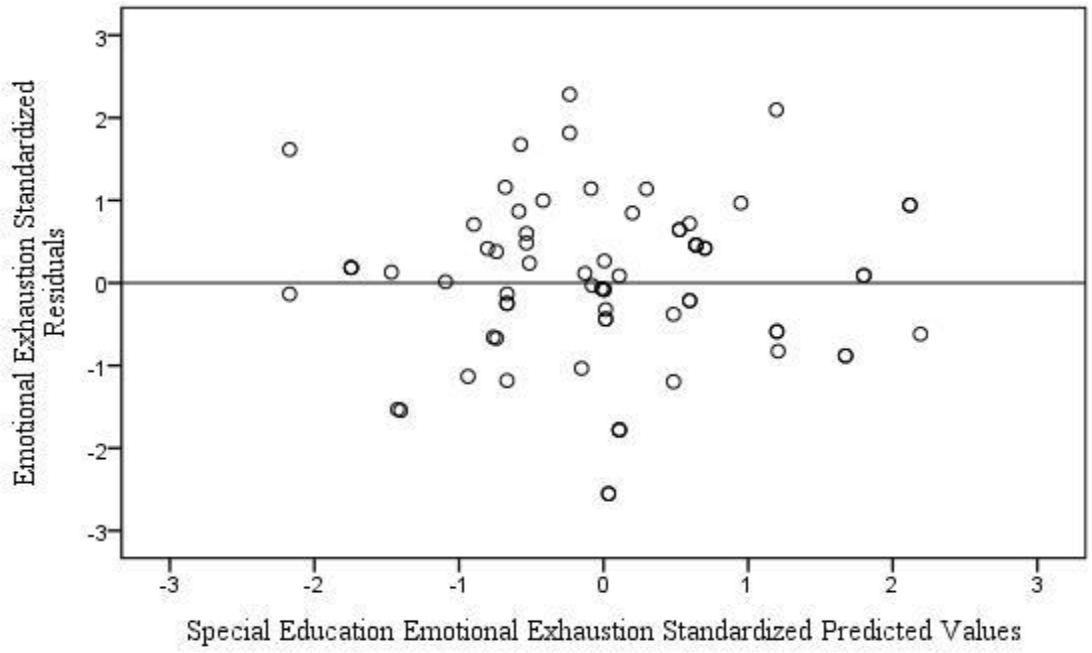

Figure 14. Scatterplot of the special education emotional exhaustion standardized residual values against the standardized predicted values.

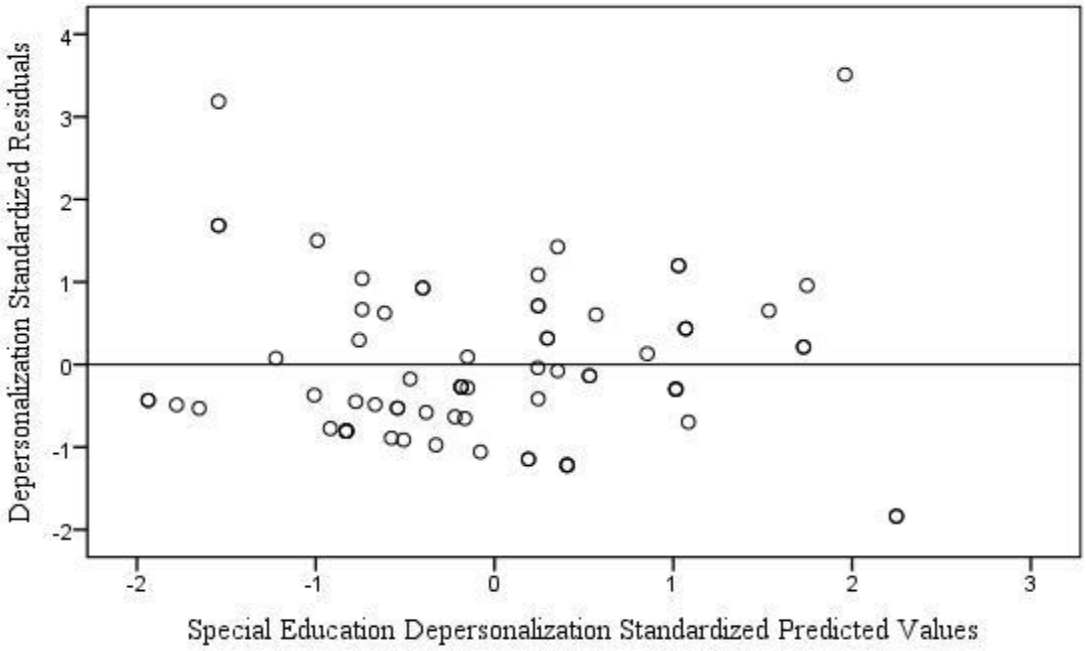

Figure 15. Scatterplot of the special education depersonalization standardized residual values against the standardized predicted values.

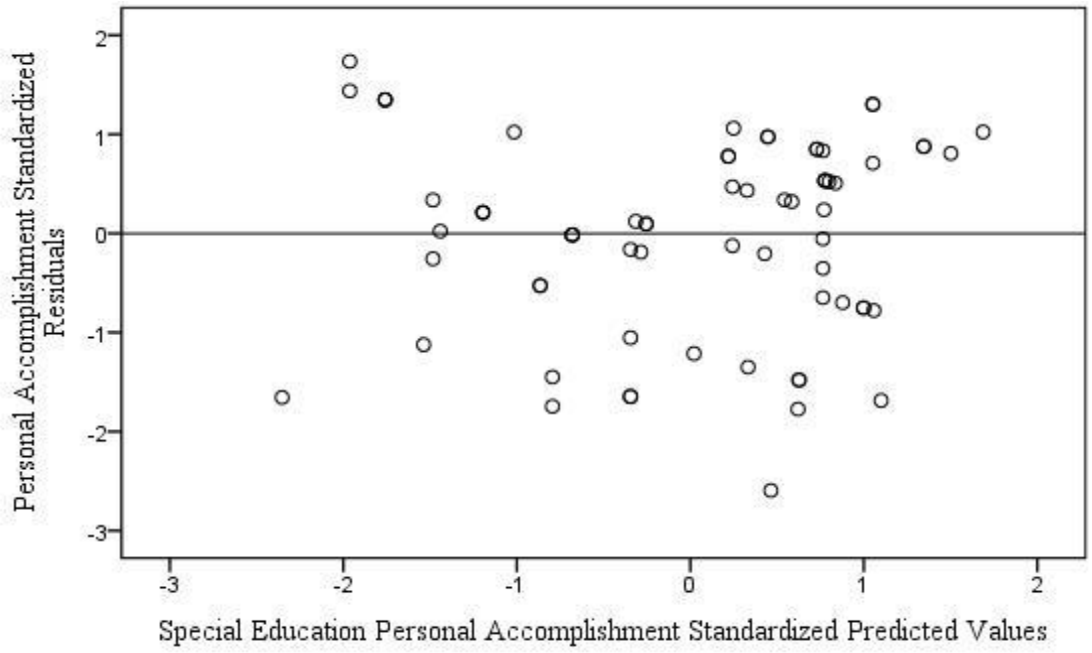

Figure 16. Scatterplot of the special education personal accomplishment standardized residual values against the standardized predicted values.

The points in the scatterplots were distributed randomly throughout the length of the mean line and did not form a curve. Therefore, the assumption of linearity was considered met. The distribution of points in the scatterplots did not form a cone or funnel shape at either end of the distribution. Therefore, the assumption of homoscedasticity was considered met. Conclusively, the data set did not violate the required assumptions of the statistical test.

Multicollinearity

To identify the presence multicollinearity between the predictor variables in each of the regressions, tolerance and variance inflation factor (VIF) statistics were analyzed. The generally accepted value of 10 for the VIF was applied to this study, and determined to be indicative of the presence of multicollinearity (Myers, 1990). Likewise, as the

reciprocal of VIF, a tolerance value less than .1 indicated the presence of multicollinearity. Variance inflation factors were found to be within the generally accepted thresholds for each of the regression analyses, indicating that multicollinearity was not likely present. The VIF and tolerance values are presented in Table 8.

Table 8

Variance Inflation Factors and Tolerance Values for Each Regression Model

	Collinearity statistics	
	Tolerance	VIF
H1: Special education emotional exhaustion		
Role conflict	.935	1.070
Role ambiguity	.935	1.070
H2: Special education depersonalization		
Role conflict	.935	1.070
Role ambiguity	.935	1.070
H3: Special education personal accomplishment		
Role conflict	.947	1.056
Role ambiguity	.947	1.056
H4: General education emotional exhaustion		
Role conflict	.793	1.260
Role ambiguity	.793	1.260
H5: General education depersonalization		
Role conflict	.885	1.130
Role ambiguity	.885	1.130
H6: General education personal accomplishment		
Role conflict	.809	1.237
Role ambiguity	.809	1.237

Hypothesis Testing

Hypothesis 1a

To test Hypothesis 1a, that role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers, a multiple linear regression was conducted. In this regression analysis, the dependent was emotional exhaustion, and the independent variables were role conflict and role ambiguity, only scores for special education teachers were used.

As shown in Table 9, the linear combination of role conflict and role ambiguity scores accounted for 28.3% of the variance in emotional exhaustion scores. It is known that the value of R^2 tends to over-estimate the true percentage of population variance in the dependent variable that is explained by the independent variable (Keith, 2006). Therefore, the adjusted value of .262 or 26.2% is reported in Table 9 as a more accurate estimate of the true proportion of variance in emotional exhaustion that is associated with the role conflict and role ambiguity. The regression model as a whole was significant, $F(2, 69) = 13.61$, $p < .001$. In other words, the linear combination of role conflict and role ambiguity scores was a significant predictor of emotional exhaustion scores. In terms of statistical significance of each predictor variable in the regression model as a predictor of emotional exhaustion, only role conflict was significant ($p < .001$) when using an alpha level of 0.01 (see Chapter 3). In other words, the level of role conflict significantly predicted emotional exhaustion, while controlling for the level of role ambiguity; the level of role ambiguity did not significantly predict emotional exhaustion, while

controlling for the level of role conflict. Hence, the results of the regression analysis were significant and null hypothesis 1a was rejected.

As shown in Table 9, the semi-partial correlation for the role conflict variable is 0.498; the square of this number is 0.248 or 24.8%, which indicates that role conflict is uniquely associated with 24.8% of the variance in emotional exhaustion; after controlling for the influence of the role ambiguity (Keith, 2006). The squared value of the semi-partial correlation for role ambiguity indicates that this predictor variable is associated with almost zero variance in emotional exhaustion.

The unstandardized regression coefficient of 5.72 for role conflict implies that a 1-point increase in the role conflict scale score predicted an increase in emotional exhaustion scale score of 5.72 points. The standardized regression coefficient (beta) for role conflict was 0.516, meaning that an increase of role conflict scores by one standard deviation predicted an increase in emotional exhaustion scores by 0.516 standard deviations. In terms of scoring of each variable, because lower role conflict scores indicate less conflict and higher emotional exhaustion scores indicated higher emotional exhaustion. Therefore, the positive sign of the regression coefficients for role conflict implied that as role conflict increased, emotional exhaustion also tended to increase. The results are presented in Table 9.

Table 9

Simultaneous Multiple Linear Regression With Role Conflict and Role Ambiguity Predicting Emotional Exhaustion Among Special Education Teachers

Independent Variable	Unstandardized coefficients		Standardized coefficients	Semi-partial correlation	t	P-value
	b	95% CI	Beta			
(Constant)	8.56	[-8.87, 26.0]			.980	.331
Role conflict	5.72	[3.39, 8.06]	.516	.498	4.89	<.001
Role ambiguity	-.11	[-.53, .32]	-.054	-.052	-.510	.612

F (2,69) = 13.61, *p*. = < .001, *R Square* (R^2) = 0.283, *Adjusted R Square*=0.262, *n* = 71

a. Dependent Variable: *Emotional Exhaustion* scale score
b. Predictors: Role conflict and role ambiguity scale scores
c. CI = Confidence Interval

Hypothesis 1b

To test Hypothesis 1b, that role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers, a multiple linear regression was conducted. In this regression analysis, the dependent was depersonalization, and the independent variables were role conflict and role ambiguity; only scores for special education teachers were used.

As shown in Table 10, the linear combination of role conflict and role ambiguity scores accounted for 10.4% of the variance in depersonalization scores. However, because it is known that the value of R^2 tends to over-estimate the true percentage of population variance in the dependent variable that is explained by the independent variable (Keith, 2006). Therefore, the adjusted value of .078 or 7.8% is reported in Table 10 as a more accurate estimate of the true proportion of variance in depersonalization that is associated with the role conflict and role ambiguity. The regression model as a whole

was not significant at the .01 alpha level prespecified in Chapter 3, F (2, 69) =3.99, $p <$ .05. In other words, the linear combination of role conflict and role ambiguity scores was not a significant predictor or depersonalization scores. In addition, the level of role conflict did not significantly predict depersonalization while controlling for role ambiguity nor did role ambiguity significantly predict depersonalization while controlling for role conflict. Therefore, the null hypothesis 1b was not rejected.

As shown in Table 10, the semi-partial correlation for role conflict variable is .200, the square of this number is 0.04 or 4%, which indicates that role conflict is only associated with 4% of the variance in depersonalization scores, after controlling for the influence of the role ambiguity (Keith, 2006). In addition, the semi partial correlation for role ambiguity variable is -.193, or zero. Concurrently, both are indicative of zero variance and beyond in depersonalization. The results are presented in Table 10.

Table 10

Simultaneous Multiple Linear Regression With Role Conflict and Role Ambiguity Predicting Depersonalization Among Special Education Teachers

Independent	Unstandardized coefficients		Standardized coefficients	Semi-partial		
Variable	b	95% CI	Beta	correlation	t	P-value
(Constant)	4.78	[-.64,10.20]			1.76	.083
Role conflict	.64	[.08, 1.37]	.207	.200	1.75	.084
Role ambiguity	-.11	[-.24, .02]	-.199	-.193	-1.69	.095

F (2,69) = 3.99, p. = < .05 *R Square* (R^2) = .104, *Adjusted R Square*=.078, n = 71

d. Dependent Variable: *Depersonalization* scale score
e. Predictors: Role conflict and role ambiguity scale scores
f. CI = Confidence Interval

Hypothesis 1c

To test Hypothesis 1c, that role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers, a multiple linear regression was conducted. In this regression analysis, the dependent was personal accomplishment, and the independent variables were role conflict and role ambiguity, only scores for special education teachers were used.

As shown in Table 11, the linear of combination of role conflict and role ambiguity scores accounted for 25.1% of the variance in personal accomplishment scores. Thus, being cognizant that the value of R^2 tends to be over-estimated when compared to the true percentage of population variance in the dependent variable that is explained by the independent variable (Keith, 2006). Subsequently, the adjusted value of .229 or 22.9% is reported in Table 11 as a more accurate estimate of the true proportion of variance in personal accomplishment that is associated in role conflict and role ambiguity. The regression model as a whole was significant, F (2, 70) = 8.18, $p < .001$. Concurrently, the linear combination of role conflict and role ambiguity scores was a significant predictor of personal accomplishment scores. In terms of statistical significance of each predictor variable in the regression model as a predictor of personal accomplishment, only role ambiguity was significant ($p < .001$) when using alpha level of 0.01 (see Chapter 3). In other words, the level of role ambiguity significantly predicted personal accomplishment, while controlling for the level of role conflict. However, the level of role conflict did not significantly predict personal accomplishment while

controlling for the level of role ambiguity. In conclusion, the results of the regression analysis were significant and null hypothesis 1c was rejected.

As shown in Table 11, the semi-partial correlation for role ambiguity is 0.347 or 34.7%, which indicates that role ambiguity is uniquely associated with 34.7% of the variance of personal accomplishment; after controlling for the influence of role conflict (Keith, 2006). The squared value of the semi-partial correlation for role conflict indicates that this predictor variable is associated with zero variance in personal accomplishment.

The unstandardized regression coefficient of .36 for role ambiguity implies that a 1-point increase in the role ambiguity scale score predicted an increase in personal accomplishment scale scores by .36 points. The standardized regression coefficient (beta) for role ambiguity .359, meaning that an increase of role ambiguity scores by one standard deviation predicated an increase in personal accomplishment scores by .359 standard deviations. In terms of scoring of each variable, because high scores indicate low ambiguity and high personal accomplishment scores indicate low personal accomplishment. Therefore, the positive sign of the regression coefficients for role ambiguity implied that as ambiguity decreased, personal accomplishment tended to increase. The results are presented in Table 11.

Table 11

Simultaneous Multiple Linear Regression With Role Conflict and Role Ambiguity Predicting Personal Accomplishment Among Special Education Teachers

Independent Variable	Unstandardized coefficients		Standardized coefficients	Semi-partial correlation		
	b	95% CI	Beta		t	P-value
(Constant)	32.34	[23.26, 41.42]			7.10	<.001
Role conflict	-.95	[-2.17, .27]	-.175	-.169	-1.56	.123
Role ambiguity	.36	[.14, .58]	.359	.347	3.20	.002

F (2,69) = 8.18, *p*. = < .001, *R Square* (R^2) = .192, *Adjusted R Square*=.168, *n* = 71

g. Dependent Variable: *Personal Accomplishment* scale score
h. Predictors: Role conflict and role ambiguity scale scores
i. CI = Confidence Interval

Hypothesis 2a

To test Hypothesis 2a, that role conflict and role ambiguity, as measured by Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers, a multiple linear regression was conducted. In this regression analysis, the dependent was emotional exhaustion, and the independent variables were role conflict and role ambiguity; only scores for general education teachers were used.

As shown in Table 12, the linear combination of role conflict and role ambiguity scores accounted for 47.1% of the variance in emotional exhaustion scores. With the value of R^2 tending to over-estimate the true percentage of population variance in the dependent variable that is explained by the independent variable (Keith, 2006), the adjusted value of 456 or 45.6% is reported in Table 12 as a more accurate estimate of the true proportion of variance in emotional exhaustion that is associated that is associated with role conflict and role ambiguity. The regression model as a whole was significant *F*

(2. 70) = 31.20, $p < .001$. In other words, the linear combination of role conflict and role ambiguity scores was a significant predictor of emotional exhaustion scores. In terms of statistical significance of each predictor variable in the regression model as a predictor of emotional exhaustion, both role conflict and role ambiguity were significant ($p < .001$). In other words, the level of role conflict significantly predicted emotional exhaustion, while controlling for the level of role ambiguity; the level of role ambiguity significantly predicted emotional exhaustion, while controlling for role conflict. Thus, the results of the regression analysis were significant and null hypothesis 2a was rejected.

As shown in Table 12, the semi-partial correlation for role conflict variable 0.434 or .188 and/or 18.8%, which indicates that role conflict, is associated with 18.8% of the variance in emotional exhaustion, after controlling for the influence of the role ambiguity (Keith, 2006). The squared value of the semi-partial correlation for role ambiguity indicates that this predictor -.276 or zero, respectively. Overall, the positive relationship between role conflict and emotional exhaustion suggested that as conflict increased, emotional exhaustion increased whereas, the negative relationship between role ambiguity and emotional exhaustion suggested that as ambiguity decreased, emotional exhaustion decreased.

The unstandardized regression coefficient of 5.68 for role conflict implies that a 1 point increase in the role conflict scale score predicted an increase in emotional exhaustion scale scores by 5.68 points. The standardized regression coefficient (beta) for role conflict .487, meaning that an increase of role ambiguity scores by one standard deviation predicated an increase in emotional exhaustion scores by .487 standard

deviations. In terms of scoring of each variable, high scores indicate high conflict and high emotional exhaustion scores indicate high emotional exhaustion. Therefore, the positive sign of the regression coefficients for role conflict implied that as conflict increased, emotional exhaustion tended to increase. The results are presented in Table 12.

Table 12

Simultaneous Multiple Linear Regression With Role Conflict and Role Ambiguity Predicting Emotional Exhaustion Among General Education Teachers

Independent	Unstandardized coefficients		Standardized coefficients	Semi-partial		
Variable	b	95% CI	Beta	correlation	t	P-value
(Constant)	28.24	[9.52, 46.97]			3.00	.004
Role conflict	5.68	[3.41, 7.95]	.487	.434	4.99	<.001
Role ambiguity	-.70	[-1.14, -.26]	-.310	-.276	-3.18	.002

F (2,70) = 31.20, *p*. = < .001, *R Square* (R^2) = .471, *Adjusted R Square*=.456, *n* = 72

j. Dependent Variable: *Emotional Exhaustion* scale score
k. Predictors: Role conflict and role ambiguity scale scores
l. CI = Confidence Interval

Hypothesis 2b

To test Hypothesis 2b, that role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers, a multiple linear regression was conducted. In this regression analysis, the dependent was depersonalization, and the independent variables were role conflict and role ambiguity; only scores for general education teachers were used.

As shown in Table 13, the linear combination of role conflict and role ambiguity scores accounted for 34.5% of the variance in depersonalization scores. With the

tendency of the value of R^2 over-estimating the true percentage of population variance in the dependent variable that is explained by the independent variable (Keith, 2006), hence, the adjusted value of .326 or 32.6% is reported in Table 13 as a more accurate estimate of the true proportion of variance in depersonalization that is associated with the role conflict and role ambiguity. The regression model as a whole was not significant at the .01 alpha level prespecified in Chapter 3, F (2, 70) = 18.43, $p < .001$. In other words, the linear combination of role conflict and role ambiguity scores was not a significant predictor of depersonalization. In other words, the linear combination of role conflict and role ambiguity scores was not a significant predictor of depersonalization scores. In addition, the level of role conflict did not significantly predict depersonalization while controlling for role ambiguity nor did role ambiguity significantly predict depersonalization while controlling for role conflict; therefore, the null hypothesis was not rejected.

As shown in Table 13, the semi-partial correlation for the role conflict variable is .234, the square of this number is .0547 or 5.47%, which indicates that role conflict is not largely associated, only 5.47% of the variance in depersonalization, after controlling for the influence of the role ambiguity (Keith, 2006). The squared value of the semi-partial correlation for role ambiguity indicates that this predictor variable is associated with a value of zero variance in depersonalization.

Table 13

Simultaneous Multiple Linear Regression With Role Conflict and Role Ambiguity Predicting Depersonalization Among General Education Teachers

Independent	Unstandardized coefficients		Standardized coefficients	Semi-partial		
Variable	b	95% CI	Beta	correlation	t	P-value
(Constant)	14.80	[4.31, 25.29]			2.81	.006
Role conflict	1.54	[.27, .2.81]	.262	.234	2.41	.018
Role ambiguity	-.48	[-.72, -.23]	-.420	-.374	-3.86	<.001

F (2,70) = 18.43, *p*. = < .001, *R Square* (R^2) = .345, *Adjusted R Square*=.326, *n* = 72

m. Dependent Variable: *Depersonalization* scale score
n. Predictors: Role conflict and role ambiguity scale scores
o. CI = Confidence Interval

Hypothesis 2c

To test Hypothesis 2c, that role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in general education co-teachers, a multiple linear regression was conducted. In this regression analysis, the dependent was personal accomplishment and the independent variables were role conflict and role ambiguity; only scores for general education teachers were used.

As shown in Table 14, the linear combination of role conflict and role ambiguity scores accounted for 25.1% of the variance in personal accomplishment scores. With the R^2 tending to over-estimate the true percentage of population variance in the dependent variable that is explained by the independent variable (Keith, 2006), hence, the adjusted value of .229 or 22.9% is reported in Table 14 as a more precise estimate of the true proportion of variance in personal accomplishment that is associated with role conflict

and role ambiguity. The regression model as a whole was significant, F (2, 70) = 11.70, p < .001. In other words, the linear combination of role conflict and role ambiguity scores was a significant predictor of personal accomplishment scores. In terms of statistical significance of each predictor variable in the regression model as a predictor of personal accomplishment, only role ambiguity was significant (p < .001) when using an alpha level of 0.01 (see Chapter 3). The level of role ambiguity significantly predicted personal accomplishment, while controlling for the level of role conflict. However, the level of role conflict did not significantly predict personal accomplishment when controlling for the level of role ambiguity. Therefore, the results of the regression analysis were significant and null hypothesis 2c was rejected.

As shown in Table 14, the semi-partial correlation for role ambiguity variable is 0.405, the square of this number is 0.164 or 16.4% of the variance in personal accomplishment, after controlling for the influence of role conflict (Keith, 2006). The squared value of the semi-partial correlation for role conflict indicates that this predictor variable is associated with a value less than zero variance in personal accomplishment.

The unstandardized regression coefficients of .52 for role ambiguity implies that a 1 point increase in the role ambiguity scale score predicted an increase in personal accomplishment scale score of .52 points. The standardized regression coefficient (beta) for role ambiguity was .455, meaning that an increase of role ambiguity scores by one standard deviation predicted an increase in personal accomplishment scores by .455 standard deviations. In terms of scoring of each variable, lower role ambiguity scores indicate high ambiguity, and lower personal accomplishment scores indicate high

personal accomplishment. Therefore, the positive sign of the regression coefficient for role ambiguity implied that as role ambiguity decreased, personal accomplishment tended to increase. The null hypothesis was rejected. The results are presented in Table 14.

Table 14

Simultaneous Multiple Linear Regression With Role Conflict and Role Ambiguity Predicting Personal Accomplishment Among General Education Teachers

Independent Variable	Unstandardized coefficients		Standardized coefficients	Semi-partial correlation	t	P-value
	b	95% CI	Beta			
(Constant)	25.16	[13.87, 36.45]			4.44	<.001
Role conflict	-.51	[-1.88, .85]	-.087	-.078	-.75	.456
Role ambiguity	.52	[.26, .78]	.455	.405	3.91	<.001

F (2,70) = 11.71, *p*. = < .001, *R Square* (R^2) = .251, *Adjusted R Square*=.229, *n* = 72

p. Dependent Variable: *Personal Accomplishment* scale score
q. Predictors: Role conflict and role ambiguity scale scores
r. CI = Confidence Interval

Conclusion

In conclusion, the central tendency of the study variables indicated that both special and general education co-teachers tended to experience low levels of role conflict and infrequently experienced emotional exhaustion and depersonalization. The central tendency of the study variables also indicated that both special and general education teachers infrequently experienced role ambiguity and often experienced feelings of personal accomplishment. Therefore, the results of the regression analysis testing regarding research question one were statistically significant indicating a positive relationship between role conflict and emotional exhaustion, but not role ambiguity and emotional exhaustion in special education co-teachers. . In addition, the linear combination of role conflict and role ambiguity did not significantly predict

depersonalization among special education teachers, but it was only role conflict that significantly contributed to the model individually. Lastly, for special education co-teachers and general education teachers, the results indicated a statistically significant, positive relationship between role ambiguity and personal accomplishment.

The results of the regression analysis testing for research question two regarding general education co-teachers and role conflict and role ambiguity with emotional exhaustion suggested a statistically significant relationship with both role conflict and role ambiguity- significantly contributed to the model to predict emotional exhaustion. The relationship between role conflict and emotional exhaustion was positive and the relationship between role ambiguity and emotional exhaustion was negative in general education co-teachers. .

Moreover, the results of the regression analysis test did not show a statistically significant relationship with the linear combination of role conflict and role ambiguity, thus to significantly predict depersonalization among general education teachers. In addition, neither role conflict nor role ambiguity significantly contributed to the model individually predicting depersonalization, thus overall the model was not statistically significant.

To conclude findings for general education co-teachers, the results of the regression analysis testing indicated a statistically significant, positive relationship between role ambiguity and personal accomplishment.

In chapter five, an interpretation of the findings is discussed, as well as the limitations of the study, recommendations for future research, implications for positive social change, and a conclusion.

Summary

The purpose of this study was to determine whether there existed a statistically significant relationship between Rizzo's et al. (1970), role stressors, role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales with Maslach's contexts of burnout (i.e., emotional exhaustion, depersonalization, and personal accomplishment), as measured by the Maslach Burnout Inventory (Maslach & Jackson, 1981) in special and general education co-teachers. The results of the multiple linear regression tests led to the rejection of almost all of the null hypotheses, with the exception of two. Particularly, the test results suggested that role conflict and role ambiguity had a positive influence on emotional exhaustion in general education co-teachers. In addition, role conflict also had a positive influence towards emotional exhaustion in special education co-teachers. Meanwhile, role ambiguity had a positive influence towards personal accomplishment in both special and general education teachers. However, the study results did not provide sufficient evidence to infer that high levels of role conflict and role ambiguity could cause high levels of emotional exhaustion in both special and general education co-teachers. In addition, the study results did not indicate that high ambiguity is evidence of low personal accomplishment.

In the next chapter, the study results are interpreted and discussed with reference to the research questions and previous research, as well as the methodological limitations

of the present study. Implications of the results are considered, and recommendations for action and future study will be presented.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to explore the relationships between role conflict and role ambiguity as predictors of burnout (i.e., emotional exhaustion, depersonalization, and personal accomplishment) in special and general education co-teachers. Role conflict and role ambiguity were measured using scores from the Role Conflict and Role Ambiguity Scales (Rizzo et al. 1970), to measure conflict and ambiguity among special and general education teachers in a co-teaching position. In addition, burnout was measured on three scales (i.e., emotional exhaustion, depersonalization, and personal accomplishment), using the MBI-ES (Maslach & Jackson, 1981) scores. The analysis was based upon responses from two separate samples, 72 special education co-teachers, and 73 general education co-teachers who volunteered from eight different elementary schools located within an urban city.

In Chapter 5, I summarize the study findings presented in Chapter 4 and discuss interpretations based upon these findings. In the final section of this chapter, I relate the results presented in Chapter 4 to the concepts presented in Chapter 1 as well as the review of literature in Chapter 2. The chapter concludes with recommendations for further research.

Summary of the Research Findings

The final sample size was 145 (72 special education co-teachers and 73 general education co-teachers), which exceeded the minimum required for adequate statistical power-retained to increase the statistical power testing the study hypotheses. The sample

for special education co-teachers consisted of Caucasian females. Among the special education co-teachers sample, 98% were female and 83% were Caucasian (with an average of 10 years of service). The general education co-teachers sample also comprised Caucasian female, which entailed 95 % female and 83% Caucasian. The average years of service were slightly higher than that of the special education teachers (11years). The samples, with both special education co-teachers and general education co-teachers had an average of five years or more in their current position [special education co-teachers (6 years) and general education co-teachers (5 years)]. Both special and general education co-teachers tended to experience low levels of role conflict and infrequently experienced emotional exhaustion and depersonalization. The results of the study also indicated that both special and general education teachers infrequently experienced role ambiguity and often experienced feelings of personal accomplishment.

The research questions for this study were as follows:

Research Question 1: Do role ambiguity and role conflict, as measured by the Role Ambiguity and Role Conflict Scales, predict burnout (i.e., emotional exhaustion, depersonalization, or personal accomplishment), as measured by the MBI-ES instrument, in special education co-teachers?

$H1a_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1a$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict emotional exhaustion, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1b$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1b$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict depersonalization, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1c$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers.

*H*1c$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict personal accomplishment, as measured by the MBI-ES instrument, in special education co-teachers.

Research Question 2: Do role ambiguity and role conflict, as measured by the Role Ambiguity and Role Conflict Scales, predict burnout (i.e., emotional exhaustion, depersonalization, or personal accomplishment), as measured by the MBI-ES instrument, in general education co-teachers?

*H*2a$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2a$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict emotional exhaustion, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2b$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict depersonalization, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2b$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict depersonalization, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2c$_0$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, do not predict personal accomplishment, as measured by the MBI-ES instrument, in general education co-teachers.

*H*2c$_1$: Role conflict and role ambiguity, as measured by the Role Conflict and Role Ambiguity Scales, predict personal accomplishment, as measured by the MBI-ES instrument, in general education co-teachers.

The results of the regression analyses regarding research questions one and two are summarized in Tables 15 and 16. There was a statistically significant positive relationship between role conflict and emotional exhaustion in both special educators and general educators. Role ambiguity was a significant predictor of personal accomplishment among both general educators and special educators. Among the general educators, the relationships between role ambiguity and emotional exhaustion and between role ambiguity and depersonalization were in the negative direction. These

findings can be understood in terms of the scoring of the independent and dependent variables. High scores on the emotional exhaustion, depersonalization, and role conflict scales indicate high scores on the underlying constructs. However, high role ambiguity scores actually indicate low levels of role ambiguity. This explains the positive relationships between the emotional exhaustion scores with the role conflict scores in both samples of teachers, as well as the negative relationships of emotional exhaustion and depersonalization scores with the role ambiguity scores among the general education teachers. Also due to the fact that low personal accomplishment scores are indicative of high levels of burnout, while low role ambiguity scores are indicative of high role stress, the positive relationships between role ambiguity scores and personal accomplishment scores in both special and general educators are consistent with the theoretical prediction that higher role stress is associated with higher levels of burnout. Hence, all the significant regression results reported in Chapter 4 are consistent in terms of their direction with the theoretical background presented in Chapter 2.

Table 15

Summary of Research Findings for Research Question 1 on the Sample of Special Education Teachers

	Independent Variables		% of Variance Explained by
Dependent Variable	Role Conflict	Role Ambiguity	Independent Variables
Emotional Exhaustion	+	NS	28.3%
Depersonalization	NS	NS	10.4%
Personal Accomplishment	NS	+	19.2%

+ : Statistically significant positive relationship between independent and dependent variables
- : Statistically significant negative relationship between independent and dependent variables
NS: No statistically significant relationship between independent and dependent variables

Table 16

Summary of Research Findings for Research Question 2 on the Sample of General Education Teachers

	Independent Variables		% of Variance Explained by
Dependent Variable	Role Conflict	Role Ambiguity	Independent Variables
Emotional Exhaustion	+	-	47.1%
Depersonalization	NS	-	34.5%
Personal Accomplishment	NS	+	25.1%

+ : Statistically significant positive relationship between independent and dependent variables
- : Statistically significant negative relationship between independent and dependent variables
NS: No statistically significant relationship between independent and dependent variables

The regression models to predict depersonalization scores were not significant at .01 alpha level for special education teachers. According to the procedure outlined in Chapter 3, the significance of individual predictor variables would be examined only if the regression model as a whole was statistically significant at the .01 level. Hence, the study did not yield a significant predictor of depersonalization in the group of special education teachers.

Role ambiguity scores were a significant predictor of personal accomplishment scores in both samples of teachers, and the relationship was in the positive direction. Again, these findings should be interpreted in terms of the scoring of the independent and dependent variables. High personal accomplishment scores indicate low levels of personal accomplishment, which is indicative of high levels of burnout. Since role ambiguity would be expected to be associated with burnout, it would be expected to be associated with low levels of personal accomplishment. However, low role ambiguity

scores actually indicate high levels of role ambiguity, in terms of the underlying construct. Hence, low scores on the role ambiguity scale used in this study would be expected to be associated with low levels of personal accomplishment, and conversely high role ambiguity scores would be expected to be associated with high personal accomplishment scores. This explains the significant positive relationships between role ambiguity scores and personal accomplishment scores that were obtained from the regression analyses on the two samples.

The results of the regression analysis for both types of teachers yielded very similar results, as shown in Tables 15 and 16. Among both special and general education teachers there were statistically significant positive relationships between the emotional exhaustion and role conflict variables. Among general education teachers, there was a statistically significant relationship between emotional exhaustion and role ambiguity. Both special and general education co-teachers had statistically significant positive relationships with personal accomplishment and role ambiguity.

Interpretation of Findings

Four out of six hypotheses were supported in the results of the current study. The results indicated that among special and general education co-teachers, dimensions of burnout (i.e., emotional exhaustion and/or personal accomplishment) are related to certain role stressors (i.e., role conflict and/or role ambiguity).

Previous studies have found that role conflict was a predictor of depersonalization in samples of teachers that, unlike the present study, were not specifically classified as either special or general education teachers (Jackson et al., 1986; Schwab & Iwanicki,

1981). However, as far as the current study is concerned, such a relationship could not be established between both role conflict and role ambiguity in general education and special education co-teachers with depersonalization. Although, both special education co-teachers and general education co-teachers yielded a significant relationship with role ambiguity as a predictor of personal accomplishment in the current study, neither special educators nor general educators established a significant relationship with role conflict with the current findings.

The results of the present study, however, are fairly similar to the findings of existing related studies. A study by Starnaman and Miller (1992), found that role conflict, not role ambiguity was positively related to emotional exhaustion in elementary, middle, and secondary school teachers, which was consistent to Embich's findings in that role conflict, was a significant predictor in emotional exhaustion. The study conducted by Embich (2001) on a population of 300 elementary, middle, and secondary school teachers who had at least 11 years of experience as a special education teacher in a suburban district and were a part of programs that promoted inclusion of students with disabilities-reported findings that role conflict and role ambiguity positively contributed to emotional exhaustion, depersonalization, and personal accomplishment for teachers in this study. However, in the current study, teachers are from elementary schools only and included both the special education co-teachers and general education co-teachers who too have an average of 10 years of experience, but are not experiencing any significance of role conflict or role ambiguity as a predictor of depersonalization as with Embich (2001). The current study however, is comparatively similar to Embich's (2001) study in that, role

ambiguity was a significant predictor of personal accomplishment in both special and general education co-teachers. Embich (2001) study did resemble current study findings with role conflict being a significant predictor in emotional exhaustion in all teachers (i.e., special education and team teachers).

In contrast, both special and general education co-teachers in the current study reported scores that were indicative of low burnout levels, for example, emotional exhaustion for both special and general education co-teachers occurred approximately once a month. Embich (2001) reported high levels of emotional exhaustion. In the current study, depersonalization for both groups of co-teachers occurred even less frequently, never to a few times a year, but Embich (2001) reported low levels of depersonalization. While lastly, levels of personal accomplishment for both special and general education co-teachers in the current study, appeared to be reasonably high, occurring a few times a week while Embich (2001) only reported an average sense of personal accomplishment in the respective sample of teachers.

In Embich's (2001) study, the total sample scored 25.92 on role ambiguity while 24.87 on the role conflict. In the current study, special education co-teachers and general education co-teachers scores were 23.4 and 24.6, respectively on role conflict scale while role ambiguity scores for special education co-teachers and general education co-teachers were 33.5 and 32.74; respectively, which when compared to Embich's study, there was quite a significant difference. Some of the differences to consider with Embich's (2001) were that teachers were from three types of schools (i.e., elementary, middle, and secondary) as oppose to just elementary, hence, type of teacher (i.e., elementary, middle,

& secondary) could have teachers using different coping techniques to the extent their experiences with burnout are different. Lazarus and Folkman (1984), believed this included first evaluating a stressor as threatening or harmful (primary appraisal) and then evaluating the options to cope (secondary appraisal) to lessen the effects. Elementary teachers are responsible for a younger group of children, while middle and secondary students could consists of adolescents and parts of the young adult group. In addition, Embich (2001) also had 300 participants, while the current study only had 145. Usually, larger samples are a better representation of the population, thus the larger the sample, the greater the significance.

The teachers in Embich's (2001) study were faced with challenges that were consistent with special education team teachers who regularly co-taught with general education teachers who had philosophical beliefs of not wanting to share teaching responsibilities (Brackenreed, 2008). The findings of Embich's (2001) study concluded that role ambiguity contributed significantly to levels of burnout in teachers who team-taught thus reducing their sense of personal accomplishment and increasing their feelings of emotional exhaustion. As a result, the current study in both groups, special and general education co-teachers were supported by previous findings of the study conducted by Embich in 2001, in that a relationship exists between role ambiguity and personal accomplishment; however, Embich reported average levels, whereas, the current study has high levels of personal accomplishment in both groups. In addition, Embich (2001) did get some significance with the depersonalization scale, whereas in the current study, there was no significance. Embich (2001) attributed these findings to team teachers'

having to contend with a new evolving role, as with the inclusion movement, new curriculums, and higher standards, while the present study contrasts in that levels are low to conclude that teachers are again adapting to conditions of inclusion [see reauthorization of Public Law 94-142 in 1975, Individuals with Disabilities Education Act (IDEA, 2004; Trohanis, 2008)].

There also is support that role ambiguity is a strong predictor of personal accomplishment. With the current study yielding statistically significant relationships between role conflict and emotional exhaustion and with role ambiguity and personal accomplishment in both samples, respectively it is surprising that the levels of burnout are considerably low in both special and general education co-teachers. The direction of the observed relationships was consistent with theory in that the difficulties that teachers experience in their job roles would be associated with some level of burnout. In addition, what was surprising was that neither role conflict or role ambiguity was significantly associated with depersonalization in either sample.

Hence, in the present study - the range of variability on both independent and dependent variables was quite restricted. This was particularly the case with the depersonalization scale. Meyers, Gamst, and Guarino (2013) explained that low variability affects results of a regression analysis:"Generally, low variability on one of the variables [independent or dependent] will produce a low Pearson correlation, which will result in very little predictive power using a regression model" (p. 312).

The variability was severely restricted on the depersonalization variable. Statistical power would be expected to be low for the regression analyses that used it as a

dependent variable. The restricted variability explains the absence of statistically significant findings on the depersonalization variable.

In special and general education co-teachers, it was mainly role conflict that was the sole contributing factor to emotional exhaustion, while it was role ambiguity that was the sole contributing factor to personal accomplishments. What must be considered and is relevant to the current study is that about 40% of special education co-teachers reported sharing a classroom with general education co-teachers or specialists through full-time inclusion, whereas only 6.8% of general education co-teachers reported this style in the current study. In Embich's (2001) study, special education team-teachers reported sharing classrooms considerably more than any other type of teacher, thus delivering a wide range of services. Overall, sharing a classroom would certainly set the need for boundaries, respect, and an understanding of each other's role. In addition, being satisfied if goals are met that were set in place as a team.

The current study is similar when compared with Schwab and Iwanicki (1983) who conducted a study consisting of 507 elementary, middle/junior, and high school teachers, from the active association of education in Massachusetts, thus using a multiple regression. Findings from Schwab and Iwanicki's study indicated that role conflict and role ambiguity each explained a significant amount of variance in the emotional exhaustion and depersonalization scales. While the findings are similar in the current study with reference to role conflict and role ambiguity being a significant predictor of emotional exhaustion in general education teachers and only role conflict with emotional exhaustion in special education teachers, hence, the findings are different in reference to

depersonalization in that neither role conflict or role ambiguity were a significant predictor in depersonalization in either special or general educators in the current study. The current study's relevant role stress variables explaining variations are emotional exhaustion and personal accomplishment, but not depersonalization, in general education co-teachers and special education co-teachers. In contrast and considering the results of Schwab and Iwanicki's (1983) study to the current study, neither role conflict nor role ambiguity were found to significantly predict depersonalization levels in special education co-teachers as with Schwab and Iwanicki (1983). On the other hand, the results of the current study were consistent with Schwab and Iwanicki's (1983) results in that role ambiguity was the only role stress variable to explain a significant amount of variance on the personal accomplishment scale in both general education co-teachers and special education co-teachers in the current study - likewise in Schwab and Iwanicki's study. A main difference in Schwab and Iwanicki's study, however, is that Schwab and Iwanicki had 507 elementary, middle/junior, and high schools teachers from urban, rural, and suburban districts as participants, while the current study only had 145 elementary teachers from an urban district as participants. These differences could explain why the current sample did not produce significance for the depersonalization scale with either group (i.e., special or general), while the previous study with Schwab and Iwanicki did produce significance, even if it was really small when related to role ambiguity only.

The current study produced results whereby both special and general education co-teachers experienced low levels of burnout according to interpretations of the Maslach Burnout Inventory. Both produced low scores on emotional exhaustion, extremely low

scores on the depersonalization, and low scores on the personal accomplishment scale, respectively. In Papastalyniou's et al. (2009) study, general education teachers also had low burnout scores and they interpreted low burnout scores to mean that traditional general education teachers are well prepared mentally for the requirements of their jobs or are adapting well to conditions (Papastalyniou, 2009).

Even when having to contend with conditions such as excessive amounts of paperwork, being demanding, being interpersonally conflicting, lack of general support, and having insufficient time to prepare (Brackenreed, 2008; Damore & Murray, 2009). Earlier studies either considered special education teachers/co-teachers or general education teachers/co-teachers (Embich, 2001; Schwab & Iwanicki, 1981; Starnaman & Miller, 1992; Wasburn-Moses, 2009), but not both as a separate sample. The findings of the current study are quite similar to a previous study (Platsidou & Agaliotis, 2008), who too reported that special education teachers did not experience high levels of stress on the emotional exhaustion scale.

Given that role conflict is a teacher's identification with the role and demands received from another colleague involving conflicting instructions due to an inherited existence of the position (Kahn et al., 1964; Starnaman & Miller, 1992; Talmor et al., 2005), while role ambiguity is uncertainty in a particular position, to the extent the teacher holding a position is not sure of what all the role will entail to perform in that role (Kahn et al., 1964; Starnaman & Miller, 1992; Talmor et al., 2005). This can assist in understanding the current study's overall findings; however, since this was a correlational study rather than a true experiment, some caution is needed in drawing conclusions

regarding a causal relationship between role conflict and role ambiguity and burnout. In order to make inferences regarding cause and effect relationships- a true experimental design in which subjects would have been randomly assigned to different groups and observed of the effects of role conflict and role ambiguity on burnout-over a period time would have been used. Therefore, the findings may indicate a probability that special and general education co-teachers along with traditional teachers too are experiencing burnout as a consequence of role ambiguity and role conflict (Embich, 2001; Schwab & Iwanicki, 1981; Wasburn-Moses, 2009).

The current research study was able to address the gap in the literature and investigate role conflict and role ambiguity and burnout levels of special and general education co-teachers simultaneously, and determined that both groups experienced low levels of burnout. Specifically, role conflict was a predictor in emotional exhaustion, but not role ambiguity in special education co-teachers. While both role conflict and role ambiguity predicted depersonalization among special education co-teachers, but neither role conflict nor role ambiguity significantly contributed to the model individually. In conclusion, general education and special education co-teachers role ambiguity was a predictor personal accomplishment.

Limitations

The current study was limited in that only eight out-of 31 schools participated. Only 145 teachers returned the surveys from eight schools, which, unfortunately, is a low turnout rate considering there were up to 31 schools and several reminders to participate. Because the study was based upon a convenience sample, the results may not necessarily

generalize to other districts throughout the United States. Caution is needed in interpreting the findings in regard to causal relationships since the current study is a correlations study.

Recommendation

A recommendation of further research would consist of adding more types of schools (i.e., elementary, middle, or high school), in order to compare results to other studies. What was needed to take into consideration, was the fact that many studies that consisted of a sample of various teachers (i.e., elementary, middle, and/or high school), resulted in significant results on the depersonalization scale, while the current study was not significant on the depersonalization scale due to use of elementary school teachers only-being a possibly factor. Lastly, including other types of schools also may result in a substantial participation rate as oppose to the latter.

Implications for Positive Social Change

In summary, it was shown through Rizzo's et al. (1970) role stress theories, role conflict, and role ambiguity positively contributed to contexts of burnout (Freudenberger, 1974; Maslach & Jackson, 1981) in special and general education co-teachers. Burnout in teachers causes headaches, common colds, thus affecting their ability to be an effective teacher (Lath, 2010). It is essential for co-teachers to be effective since many of their students can be affected with other disabilities (i.e., behavioral or emotional etc.).

Suggestions for positive social change can now include a contribution to co-teaching research and relating the results of this study's findings being low levels of burnout. Specifically, as it relates to role conflict, role ambiguity, and burnout in teachers

who co-teach or collaborate with other professionals in elementary schools. The findings of this study emphasized the need to understand the valuable information to educational administrators and policy makers, who can now use the results to form interventions for co-teachers suffering from burnout.

It is important to understand burnout in co-teachers since inclusion classrooms are on the rise. The investigation of this quantitative study showed that co-teachers are professionals and are susceptible to burnout too, as with traditional teachers. While the levels were quite low in the teachers who participated in this study, the people who supervise them and define their working conditions have a continued responsibility to create the best possible environment for them to do their important work.

Conclusion

Chapter 5 presented a summary of the previous chapter in this study, the summary of the findings and conclusions, implications of results, and recommendation for the future research. The focus of this study was to provide quantitative evidence regarding the statistically significant relationship between each of Rizzo's et al (1970) two identified role stressors (i.e., role conflict & role ambiguity) as predictors of burnout (Maslach & Jackson, 1981), as measured by MBI-ES instrument among special and general education co-teachers. The results of this quantitative correlational study provided evidence that only role conflict had an effect on emotional exhaustion in special education co-teachers. In addition, role ambiguity had an effect on personal accomplishment in both general education co-teachers and special education co-teachers. Lastly, in general education co-teachers- the linear combination had an effect on

emotional exhaustion. In conclusion, it was recommended that teachers become aware of their stressors and utilize services available to reduce or control experiences of burnout due to uncertainty or conflict in a role.

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Appendix A: Maslach Burnout Inventory-Educators Survey

MBI-Educators Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How Often 0-6	Statements:
1. _____	I feel emotionally drained from my work.
2. _____	I feel used up at the end of the workday.
3. _____	I feel fatigued when I get up in the morning and have to face another day on the job.
4. _____	I can easily understand how my students feel about things.
5. _____	I feel I treat some students as if they were impersonal objects.
6. _____	Working with people all day is really a strain for me.
7. _____	I deal very effectively with the problems of my students.
8. _____	I feel burned out from my work.
9. _____	I feel I'm positively influencing other people's lives through my work.
10. _____	I've become more callous toward people since I took this job.
11. _____	I worry that this job is hardening me emotionally.
12. _____	I feel very energetic.
13. _____	I feel frustrated by my job.
14. _____	I feel I'm working too hard on my job.
15. _____	I don't really care what happens to some students.
16. _____	Working with people directly puts too much stress on me.
17. _____	I can easily create a relaxed atmosphere with my students.
18. _____	I feel exhilarated after working closely with my students.
19. _____	I have accomplished many worthwhile things in this job.
20. _____	I feel like I'm at the end of my rope.
21. _____	In my work, I deal with emotional problems very calmly.
22. _____	I feel students blame me for some of their problems.

(Administrative use only)

EE: _____cat:_____ **DP:** _____ cat:_____ **PA:** _____ cat:_____

Appendix B: Role Conflict and Role Ambiguity Scales

Use the following scales:

Never true =1, rarely true = 2, sometimes but infrequently true = 3, neutral = 4, sometimes true = 5, usually true = 6, and always true = 7.

Circle the number which best describes the existing conditions in your position.

1. I feel certain about how much authority I have.……1 2 3 4 5 6 7

2. Clear, planned goals and objectives for my job.……1 2 3 4 5 6 7

3. I know that I have divided my time properly.….....1 2 3 4 5 6 7

4. I know what my responsibilities are.……..1 2 3 4 5 6 7

5. I know exactly what is expected of me.…….....1 2 3 4 5 6 7

6. Explanation is clear of what has to be done. ……..1 2 3 4 5 6 7

7. I have to do things that should be done differently. ….....1 2 3 4 5 6 7

8. I receive an assignment without the manpower to complete it.……1 2 3 4 5 6 7

9. I have to buck a rule or policy in order to carry out an assignment……1 2 3 4 5 6 7

10. I work with two or more groups who operate quite differently……1 2 3 4 5 6 7

11. I receive incompatible requests from two or more people. ……..1 2 3 4 5 6 7

12. I do things that are apt to be accepted by one person and not accepted by others.……..1 2 3 4 5 6 7

13. I receive an assignment without adequate resources and materials to execute it.……1 2 3 4 5 6 7

14. I work on unnecessary things. ……..1 2 3 4 5 6 7

Appendix C: Demographic Questionnaire Form

Demographic Questionnaire

The following questions concern your role as a teacher and your demographic characteristics. The purpose of this information is ONLY to describe the GROUP of all respondents for the purpose of comparison with other research studies. Individual responses will NOT be disclosed or shared with any person working for your school district. Your answers will be kept STRICTLY CONFIDENTIAL and will not be used to try to identify you or your any of your responses in this study. You have the right not to answer any questions, should you feel uncomfortable.

1. How many years of teaching experience do you have? _____ years

2. How many years have you been in your current teaching position at the same school? _____ years

3. Regarding your current and most recent teaching assignment, which type of teacher would best *identify* your role**?**

GENERAL EDUCATION TEACHER [ ]
SPECIAL EDUCATION TEACHER [ ]
UNSURE [ ]

4. Do you regularly co-teach in the same classroom with another teacher**?**

NONE OF THE TIME [ ]
ALL OF THE TIME [ ]
PART OF THE TIME [ ] _____ hours per day

5. Do you collaborate with another teacher or specialist to provide for the special needs of the student(s) in your class that you cannot provide, but which are essential to support their learning?

YES [ ] NO [ ]

6. Which of the following special services do you utilize for one or more students in your classroom, through collaborating with a specialist or specialists outside of the classroom? *(Check all that apply)*

English Language [ ] Behavioral therapy [ ]
Reading skills [ ] Occupational therapy [ ]
Mathematics skills [ ] Physical therapy [ ]
Other service not listed [ ] Specify:_____
No special services needed [ ]

7. Which style(s) would best describe your most frequent style of collaboration with another teacher or specialist **within or outside of the classroom**? *(check ALL that apply)'*

[__] No collaboration with another teacher or specialist

[__] Team (instructional tasks are shared equally, but are not happening in the same classroom

[__] Consultant (the special educator serves as a consultant to the general educator, helping out as needed)

[__] Coach (both the special and general educators take turns in coaching one another in each other's area of the curriculum)

[__] Other (*please describe*):
_____

8. Gender: Male_____ Female_____

9. Race *(check one)*
[__] African American or Black
[__] White
[__] American Indian or Alaska Native
[__] Asian
[__] Other (*please specify*)_____

10. Ethnicity (*check one*) Hispanic_____ Non-Hispanic_____

Appendix D: Informed Consent Form

You are invited to participate in a research study on role conflict and role ambiguity to predict burnout (i.e., emotional exhaustion, depersonalization, and personal accomplishment). Please read this form and ask any questions you may have before acting on this invitation to be in the study. Cassandra Moss, a doctoral candidate at Walden University, is conducting this survey. To complete all of the forms, approximately 30 minutes of your time will be needed.

Background information:

Participants in this study will be special and general educators who co-teach in elementary school classrooms. The study will investigate job stress and burnout among the participants in relation to their perceptions regarding the teaching role. The purpose of the study is to examine whether role ambiguity and conflict at work is related to levels of burnout among special and general educators who teach in the same classrooms or collaborate with other professionals.

The knowledge gained from this study will contribute to ongoing knowledge base about special and general educators who collaborate to co-teach a heterogeneous group of students due to the reauthorization of IDEA (2004) and other similar reforms.

Procedure:

If you agree to be in this study, please complete the following surveys and demographic survey questionnaire, in which all are included in this packet. Upon completion of the surveys and demographic questionnaire, please mail the demographic questionnaire, MBI-ES, and Role Conflict and Role Ambiguity Scales surveys back in the self-addressed and postage paid envelope addressed to the researcher.

Voluntary Nature of the study:

Your participation in this study is strictly voluntary. Your participation only involves the surveys and demographic questionnaire. Your decision on whether to participate will not affect your current or future relations with the elementary schools. If you decide to participate in the study initially, you are still free to withdraw at any time later without affecting those relationships.

Risks of being in this study:

There are minimal risks associated with participating in this study and there are no short-term or long-term benefits to participating in this study. In the event you are experiencing stress or anxiety during your participation in the study, you may terminate your

participation at any time. You may refuse to answer any questions you consider invasive or stressful. Refuting or discontinuing the survey involves no penalty.

Compensation:

There will be no compensation provided for your participation in this study.

Confidentiality:

The records of this study will be kept private. In any report of this study that might be published, the researcher will not include information that will make it possible to identify you. Research records will be kept in a locked file, password protected computer, and flash drive that only the researcher will have access to these records. Individual responses will only be identifiable to the researcher.

Contacts and questions:

The researcher conducting this study is Cassandra Moss. You may ask any questions you have now or later. You may contact the researcher via email. You may also contact a Walden University Representative if there are any questions about your rights as a participant at 612-312-1210. Please keep this document for your records.

Walden University's approval number for this study is 11-04-13-0084244.

Thank you kindly in advance,

Cassandra Moss

Appendix: E Initial Principal Letter

Dear Principal:

My name is Cassandra Moss. I am a doctoral student at Walden University. I am seeking your approval to have packets placed in your teachers' mailboxes located at the school. The packets contain surveys pertaining to teachers' perceptions on role conflict and role ambiguity to predict burnout (i.e., emotional exhaustion, depersonalization, and personal accomplishment) in special and general education teachers who collaborate with others(which can involve having a child pulled out for special services) or are inclusion teachers. The title of the research project is Role Conflict and Role Ambiguity to Predict Burnout in Special and General Education Co-teachers. The participants in this study will be special and general educators who co-teach in elementary school classrooms. The study will investigate job stress and burnout among the participants in relation to their perceptions regarding the teaching role. The purpose of the study is to examine whether role ambiguity and conflict at work is related to levels of burnout among special and general educators who teach in the same classrooms or collaborate with other professionals. The survey and demographic questionnaire will take approximately 30 minutes.

The surveys are two research surveys, the MBI-ES (Maslach, Jackson, & Leiter, 1996) and the Role Conflict and Role Ambiguity Scales (Rizzo, House, & Lirtzman, 1970). The information gained from the study will contribute to the ongoing knowledge base about special and general education teachers and inclusion. This study may affect positive social change in several important ways, first, improving conditions for special and general educators. In addition, inclusive classrooms might enforce a societal commitment to diversity in education. That commitment is based on the assumption that special education students will benefit from engaging with general education students.

There are no perceived risks to the teacher or the school. The survey is anonymous and will have no school or personal identifiers. If you agree to allow participation in this study, no action is necessary at this time. However, at a later date, a meeting will need to be scheduled to receive survey packets.

Thank you for your time,

Cassandra Moss

Appendix F: Reminder to Teachers

To Whom It May Concern,

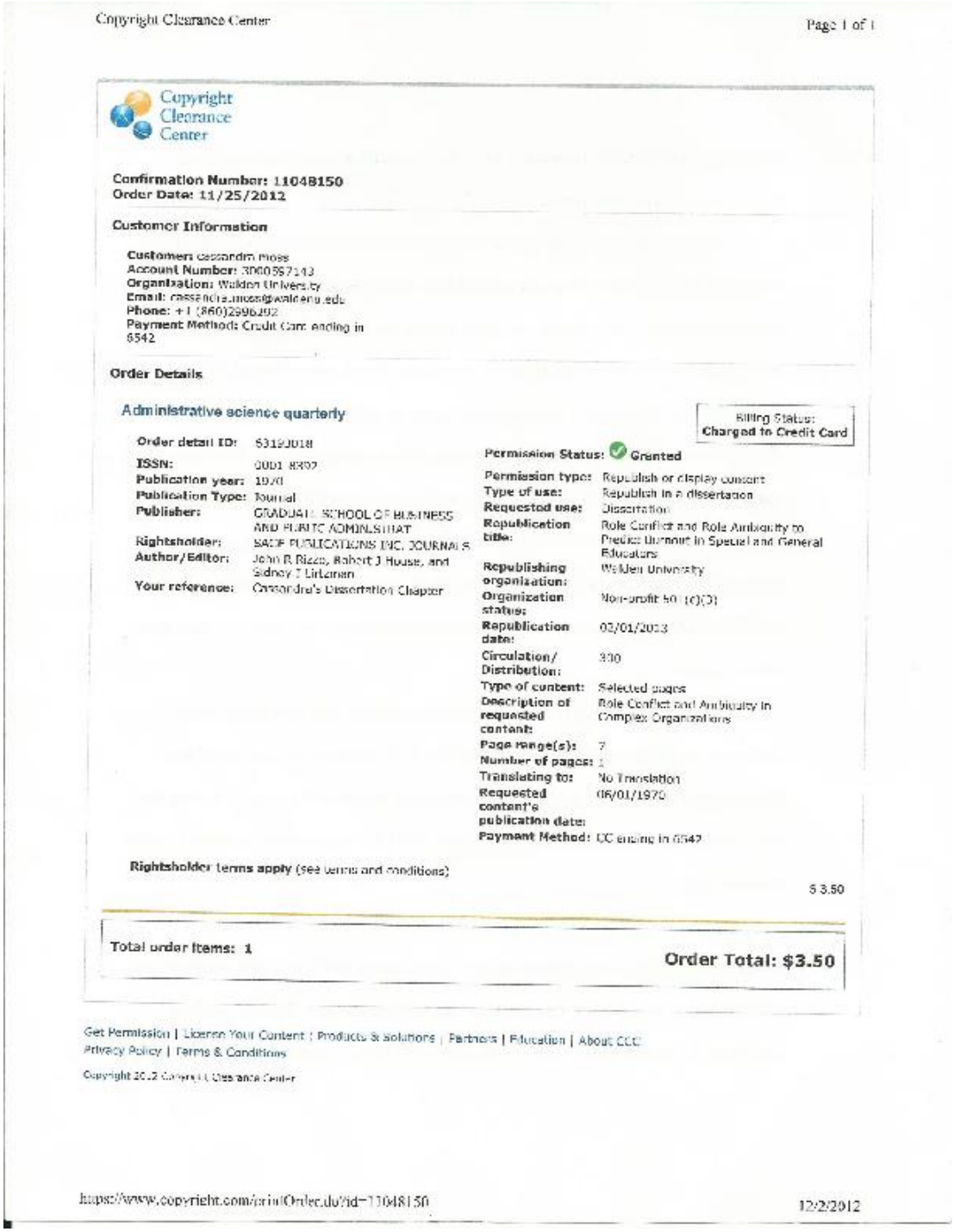
This is a reminder that you are being invited to participate in a study that will ask you questions about your personal experience in the role as a teacher who collaborates or co-teaches with others. Your participation, will contribute to the understanding of the job challenges among teachers in similar job roles. All individual responses will be kept strictly confidential and will not be shared with anyone in your school district. Your participation is, of course, voluntary. If you have not already done so, please fill out the survey packet that were left in your individual mailboxes and return it to me.

Thank you in advance for your time.

Cassandra L. Moss

Walden University Student

Appendix G: Permission for Role Ambiguity and Role Conflict Scales



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Appendix H: MBI-ES Permission

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To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her research:

Instrument: ***Maslach Burnout Inventory, Forms: General Survey, Human Services Survey & Educators Survey***

Authors

MBI-General Survey: Wilmar B. Schaufeli, Michael P. Leiter, Christina Maslach & Susan E. Jackson

MBI-Human Services Survey: Christina Maslach & Susan E. Jackson

MBI-Educators Survey: Christina Maslach, Susan E. Jackson & Richard L. Schwab

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Sincerely,

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

Curriculum Vitae

Cassandra L Moss

EMPLOYMENT HISTORY

Department of Corrections, Correctional Counselor
2006-Present
Duties include managing, orienting and assessing an assigned caseload of incarcerated offenders. Develop individual program plans, monitor progress in fulfilling program plans (performed by offenders) via an Offender Accountability Plan (OAP). Review offenders' files upon intake and every six months to assess risk and needs within established time frames. Also coordinate services for offenders based on offenders' needs and assets, and availability of programs. Provide information to other counselors and security staff regarding offenders' behavior and progress in programs. Make referrals for offenders to other services inside and outside of the correctional facility (medical, dental, mental health agencies, education, employment, etc). Provide post-release plans as necessary. In addition, provide classroom instruction in a variety of curriculums (e.g. anger management, victim impact, and understanding domestic violence).

Correctional Treatment Officer
2005-2006
Duties included meeting with an assigned caseload of youthful offenders (up to age 22) to establish a relationship to support the clients' needs while in correctional custody. Also worked closely with the correctional counselor, families and outside agencies to develop and plan resources while the youth was incarcerated. In addition, would present recommendations to correctional professionals and service providers regarding the suitability of the youthful offender upon release under parole or probation. Other duties included collaborating with other professionals, the youthful offender and their family to plan a community-based reformation program that included needed support with services such as educational classes, job training, drug/ or alcohol treatment, and court ordered actions that relate to community volunteer work. Another duty included facilitating classroom group sessions for *Thinking for a Change* that were based on cognitive thinking skills. Final duties included performing other assignments that were reasonably within the scope of the duties listed above

Correctional Officer, 2000 – 2005
Full-time duties included ensuring that safety and security measures were met regarding the public, offenders, and staff.

EDUCATION

Walden University, PhD
General Psychology
Minneapolis, MN
Anticipated Graduation Date: January 2015

Springfield College, MS
Master of Science in Human Services
Springfield, MA

Central Connecticut State University, BA
Bachelor of Arts, Criminal Justice
New Britain, CT

PROFESSIONAL MEMBERSHIPS

APA member since 2011