

ABSTRACT

SMITH, KELLY DIANE. Public Secondary School Teachers in North Carolina: Levels of Idealism and Relativism, and their Impact on Occupational Commitment. (Under the direction of Dr. Timothy G. Hatcher.)

Secondary students in the United States are now competing in a global marketplace (Wagner, 2010). Any factor which decreases student achievement must be alleviated to permit students to reach their full academic potential. Student achievement has been negatively linked with teacher attrition (Ronfeldt, Loeb, & Wyckoff, 2012): occupational commitment has also been negatively linked with attrition. Occupational commitment, therefore, is related to student achievement and success.

Ethics is commonly recognized as an integral part of education, yet there is little research on the ethical beliefs of teachers, especially on teachers at the secondary level. Previous research has established connections between occupational commitment and factors such as stress and job satisfaction. However, there has been little research that explores the connection between ethical beliefs and occupational commitment.

The purpose of the study was to explore potential connections between teachers' ethical beliefs and their occupational commitment. More specifically, North Carolina secondary teachers were surveyed to obtain information about their idealism, relativism, academic department, and occupational commitment. The theoretical framework of the study was a synthesis of ethical position theory (Forsyth, 1980), person-vocation fit, and value consonance (Rosenberg, 1977). The ethical position questionnaire (Forsyth, 1980) was used to measure teachers' idealism and relativism; the occupational commitment scales (Meyer, Allen, & Smith, 1993) were used to measure teachers' occupational commitment.

The study was expected to confirm relationships between the study variables and to identify ethical beliefs as a predictor of low occupational commitment. In fact, no significant relationships were discovered between the study variables. However, North Carolina teachers were determined to be a homogeneous group of individuals in terms of idealism and relativism. Teachers' academic department had no bearing on teachers' ethical beliefs. This observation was in contrast to previous research which had indicated the presence of subject-based subcultures in secondary schools. Although unexpected, this finding was significant as it suggests secondary subculture is based primarily on difference in subject matter rather than on teachers' personal beliefs and values. On a more practical level, the knowledge that secondary teachers exist as a homogeneous population of ethical beliefs will enable administrators to more effectively recruit new teachers. Administrators will also be able to better predict faculty reaction to new policies and procedures with an increased understanding of their faculty's ethical beliefs.

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Public Secondary School Teachers in North Carolina: Levels of Idealism and Relativism,
and their Impact on Occupational Commitment

by
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DEDICATION

To my family

BIOGRAPHY

Kelly Diane Smith was born and raised in Oak Ridge, Tennessee. She earned a Bachelor of Arts in Chemistry from Case Western Reserve University (*magna cum laude*, Phi Beta Kappa), a Master of Science in Chemistry from the University of Illinois at Urbana-Champaign, and a Master of Science in Forensic Science from The George Washington University (GWU).

While a student at GWU, Kelly was an intern with the National Laboratory Center of the Bureau of Alcohol, Tobacco, and Firearms (BATF). Her thesis research was supported by a research grant from the Organic Analytical Research Division at The National Institute of Standards and Technology; technical support was received from the BATF and the Forensic Science Research and Training Center at the FBI Academy in Quantico, Virginia. She published two papers (MacCrehan, Smith, & Rowe, 1998; Smith, McCord, MacCrehan, Mount, & Rowe, 1999) based on her thesis (Smith, 1995).

After spending eight years in the Midwest and Mid-Atlantic regions, Kelly returned to Tennessee as a Special Agent-Forensic Scientist with the Tennessee Bureau of Investigation (TBI). In her time with the TBI, Kelly specialized in serology, PCR-based DNA and crime scene analysis, trained new agents in DNA and crime scene analysis, provided professional development for local police and assistant district attorneys, served as a Team Leader of the East Tennessee Violent Crime Response Team, and testified as an expert witness in the fields of crime scene analysis, serology and DNA analysis. Kelly was

also a guest lecturer at Roane State Community College (RSCC) and completed a certificate in Police Management at RSCC.

Kelly moved to North Carolina to work with the Charlotte Mecklenburg Police Department (CMPD) as a Forensic DNA Analyst. In her time with the CMPD, Kelly specialized in serology and STR-DNA, provided professional development for CMPD personnel, assistant district attorneys and student nurses, and testified as an expert witness in the fields of serology and DNA analysis.

In 2004, Kelly became a full-time secondary educator with the Union County Public Schools. For the past ten years, she has taught earth science, physical science, chemistry, forensic science, and Advanced Placement environmental science at Sun Valley High School in Monroe, North Carolina. She also serves as co-chair of the science department, mentors new science teachers, has been a cooperating teacher with the University of North Carolina at Charlotte, and was an assistant volleyball coach for two years. She was invited to write an article on teaching forensic science at the high school level by the editor of the NEACT Journal (Smith, 2006).

Kelly is a member of Alpha Chi Sigma, a professional chemistry fraternity, and Phi Kappa Phi, an academic honor society at North Carolina State University. Her leisure activities include music and the arts, and time spent with friends and family.

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Sun Valley High School went through several principal changes during my doctoral studies at NC State. Dr. Poole, Mr. Price, Mrs. Burns, and Mr. Roess all offered unlimited support, as did the assistant principals, faculty, and staff of SVHS. Mr. Vivian and his Film Production Studio students were instrumental in the creation of the introductory video used as part of the data collection process. The other members of the Science Department have been incredibly tolerant and supportive, especially during “crunch” times. And of course, my students have been waiting impatiently to call me “Dr. K” ever since the cumulative exams in fall, 2012.

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CHAPTER ONE

Introduction

Twenty-first century secondary education students are graduating into an economy that has become truly global (The National Leadership Council for Liberal Education and America's Promise, 2007). Consequently, American high school graduates are not only competing against each other but also competing against students from countries across the world for educational and career opportunities (Casner-Lotto & Barrington, 2006; "Poor academic showing," 1998; Wagner, 2010). International testing conducted by the Organization for Economic Cooperation and Development (OECD) indicated educational levels of American students in the areas of reading, math, and science are at best average in comparison to students in other countries (OECD, 2013; United States Dept. of Education, 2010). While acknowledging some improvement from previous results, U.S. Secretary of Education Arne Duncan stated "The hard truth is that other high-performing nations have passed us by during the last two decades. ... In a highly competitive knowledge economy, maintaining the educational status quo means America's students are effectively losing ground" (United States Dept. of Education, 2010, para 10, 20). The results from the most recent Program for International Student Assessment tests (PISA, OECD, 2013) indicated students from the United States continued to perform at or below average in mathematics and reading; the United States ranked 26th in mathematics and 17th in reading.

Educational reformers have been working to improve the education of American K-12 students for decades (Crocker, 2003; Oakland, Poortinga, Schlegel, & Hambleton, 2001).

Recent reform attempts have focused on multiple areas including introduction of new curricular standards, changes in teacher credentialing standards and school accountability through external standardized testing ("Four pillars of NCLB", 2004; Guilfoyle, 2006). As the U.S. entered the twenty-first century, researchers began to document another area ripe for concern: the high attrition rate of teachers. Recent concern with teacher attrition can be traced to a series of reports by Ingersoll in the early years of the twenty-first century (Ingersoll, 2000; Ingersoll, 2001; Ingersoll, 2002; Ingersoll & Smith, 2003). In 2001, Ingersoll (2001) offered a series of data-based calculations on teacher attrition:

After 1 year, 11% of beginning teachers have left the profession; another 10% leave after their second year ... After just 3 years, 29% of all those in the typical beginning teacher cohort have left teaching altogether, and after 5 years, fully 39% (more than one-third) are gone from the teaching ranks. (p. 23)

Four years later, the Alliance for Excellent Education (AFEE) opened a report by stating "every school day, nearly a thousand teachers leave the field of teaching" (2005, para 1). Two years after the AFEE report, the National Commission on Teaching and America's Future (NCTAF, 2007) introduced a policy brief with the following statement:

America's schools are struggling with the growing number of teachers that leave the profession. The loss of teachers is costing the nation over \$7 billion a year. It is draining resources, diminishing teacher quality, and undermining our ability to close the achievement gap ... Teacher attrition has grown by 50 percent over the past fifteen years. The national teacher turnover rate has risen to 16.8 percent. (NCTAF, 2007, Introduction, para. 1 and 4).

Most recently, the National Center for Education Statistics (Keigher, 2010) published a report on teacher attrition and mobility by using data from the 2008-2009 Teacher Follow-up Survey. According to the report, 8.0% of public school teachers left the teaching profession after the 2007-2008 school year while 15.9% of private school teachers left.

High levels of teacher attrition create multiple impacts on American students. One adverse impact from high levels of teacher attrition is the financial impact on educational institutions (AFEE, 2005; Barnes, Crow, & Schaefer, 2007). In the 1999-2000 school year, over 173,000 teachers (5.8%) in the United States left the field of teaching at an estimated cost of more than 2.15 billion dollars (AFEE, 2005). More specifically, the loss of 7,148 teachers (8.4%) in 1999-2000 cost the state of North Carolina almost 84.5 million dollars (AFEE, 2005) and the loss of each teacher in Granville County alone cost the district nearly \$10,000 (Barnes et al., 2007). Money lost through teacher attrition is money that could be better spent on students. Besides financial strictures that arise from teacher attrition, student achievement can be impacted from the loss of teachers (Macdonald, 1999; NCTAF, 2003; Ronfeldt, Loeb, & Wyckoff, 2012). Macdonald (1999) described a global view that attrition was "an impediment to the educational, social, cultural and economic goals of schools and communities" (p. 841). In the summary report of *No Dream Denied* (NCTAF, 2003), the authors noted "the most serious long-term consequence of high teacher turnover is the erosion of teaching quality and student achievement" (p. 14). As evidence, the report's authors cited studies on student achievement in Boston, Dallas, and Tennessee. A more recent report from the National Center for Analysis of Longitudinal Data in Education Research (Ronfeldt et al., 2012) presented evidence that teacher turnover has "a significant

and negative effect on student achievement in both math and ELA [English/Language Arts] ... moreover, teacher turnover is particularly harmful to the achievement of students in schools with large populations of low-performing and black students" (p. 21). Since American students must now compete in a world economy, it has become vital to alleviate any situation that adversely impacts their potential success. Since teacher attrition has been negatively linked to the educational achievements of students, additional efforts must be made to lower the rate of teacher attrition in the United States to increase student achievement and future success in a global economy.

Another issue that has been receiving increasing attention in secondary education is the preponderance of high-stakes testing and its relation to unethical behavior by teachers. Under No Child Left Behind (NCLB), school accountability has been determined, in part, by student scores on external assessment tests ("Four pillars of NCLB", n.d.; Guilfoyle, 2006). In the 2012 Quality Counts report by *Education Week*, data tables show 37 states test a variety of subjects at the secondary level as part of school accountability guidelines ("Standards," 2012). Failure to meet state standards can result in a number of disciplinary measures, including the potential take-over of a school by the state (Guilfoyle, 2006).

Examples of unethical behavior have included teachers permitting students to use prohibited technology (i.e.; calculators) during tests, teachers coaching students during testing, teachers or administrators changing student test answers, and teachers or administrators looking at a test before giving it to find out what questions were being asked (Bacon & Copeland, 2013; "Cheaters should never prosper," 2010; Gabriel, 2010; Marcus,

2007; Mellon, 2010; Nichols & Berliner, 2005; Rich & Hurdle, 2014). In a partial response to the reports of unethical testing behaviors, some researchers have called for changes in preservice teacher preparation, including the use of case studies and extensive clinical work (Crocker, 2003; Darling-Hammond, 2006). Published case studies, such as those by Kearney and Smith (2009), Smolin and Clayton (2009), and McKenzie (2009), describe realistic testing situations where teachers' actions may have crossed the ethical line.

Despite repeated evidence of unethical behavior by teachers in testing situations, empirical research related to the ethics of testing is sparse. In fact, there has been little empirical research on the relationship between ethics and education in general; the research that exists has focused primarily on ethical leadership. There has been sporadic research on other topics: ethics and whistle blowing (Gokce, 2013; Richardson, Wheelless, & Cunningham, 2008), ethics and teaching history (Koksal, 2013), ethics and response to bullying (Ellis & Shute, 2007), and ethics and developing codes of conduct (Barrett, Casey, Visser, & Headley, 2012). Despite the paucity of sustained research, there is general agreement in the published literature that teaching is a profession where ethics is of high importance (Alexander, 2005; Atjonen, 2012; Beyer, 1997; Block, 2008; Buzzelli & Johnston, 2001; Campbell, 1997; Campbell, 2000; Campbell, 2003; Goodlad, Soder, & Sirotnik, 1990; Hamberger & Moore, 1997; Liston & Zeichner, 1987; Osguthorpe, 2008; Pakkari & Valimaa, 2013; Sanger, 2008; Sileo, Sileo, & Pierce, 2008; Weissbourd, 2003).

Ethical behaviors of teachers matter because they have a long-lasting and profound impact on students' lives. For example, teachers provide a moral example for their students

(Block, 2008; Campbell, 1997; Osguthorpe, 2008; Weissbourd, 2003). The nature of teaching presents many ethically fraught situations (Campbell, 2000; Colnerud, 1997; Strike & Soltis, 2009) including teacher interactions or relationships with administrators, coworkers, the local community, parents, pupils and responding to school policies. The increasing use of testing and accountability measures has only heightened the probability of teachers being placed in difficult ethical situations. When teachers' worth is judged solely or primarily by the scores of their students on standardized tests, teachers have been placed in a position where personal ethics may be challenged. As teacher ethics becomes a central issue of discussion, its potential interaction with teacher attrition is an issue of importance because attrition has been shown to have a negative impact on student achievement.

Ethics can be a difficult topic to research because a person's ethics reflect both values and beliefs (Scheibe, 1970), with those beliefs and values being observed not only through a person's statements but also through a person's actions (Rokeach, 1968). The relationship between ethics and attrition was recently examined by Santoro (2011b) in a study of thirteen teachers who left high-poverty schools. To be included in the study, the teachers were required to meet six criteria:

- (1) They taught in a high poverty school where 50% or more of the students received free or reduced-price lunch.
- (2) They taught for more than 5 years, exceeding the tenure cited as the time for greatest attrition.
- (3) They spoke of teaching and their students with fondness and affection in

screening conversations.

(4) They did not shift into administrative roles within their schools or districts.

(5) They did not transfer to another school to continue teaching, but left teaching altogether.

(6) They taught prior to and following the 2001 enactment of No Child Left Behind.

(Santoro, 2011b, p. 2678)

Six of the teachers had at least some experience at the high school level; these teachers taught classes in English, ESL (English as a Second Language), mathematics, and social studies.

Santoro (2011b) referred to the participants as "principled leavers" (p. 2671) because the participating teachers resigned "on [the] grounds that they are being asked to engage in practices that they believed were antithetical to good teaching and harmful to students" (p. 2671). In discussing what drove them to leave, the teachers spoke about a sense of responsibility to society, to their profession, to their institution, to their students, and to themselves. Ethics, at least for these teachers, was directly related to their decision to leave the profession of teaching.

The recent work by Santoro (2011a, 2011b, 2013) has provided empirical evidence that ethics can be a driver of teacher attrition. Teacher attrition has been negatively linked to student achievement (MacDonald, 1999; NCTAF, 2003; Ronfeldt et al., 2012). Student achievement has become a problem of special concern as current secondary students enter a global economy (The National Leadership Council for Liberal Education and America's Promise, 2007).

Research with teachers and other workers has suggested that turnover (attrition) and turnover intentions are negatively related to the concept of occupational commitment (Ciftcioglu, 2011; Klassen & Chiu, 2011; Lee, Carswell & Allen, 2000; Nogueras, 2006; Weng & McElroy, 2012). In the present study occupational commitment was defined "as a psychological link between a person and his or her occupation" (Lee et al., 2000, p. 800). Occupational commitment of teachers has been measured and compared to multiple variables, including burnout (Brown & Roloff, 2011), efficacy (Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, 2012; Ware & Kitsantas, 2011), job satisfaction (Billingsley & Cross, 1992; Canrinus et al., 2012), participation in decision making and organizational citizenship behavior (Somech & Bogler, 2002), school climate and social-emotional learning (Collie, Shapka, & Perry, 2011), and stress (Billingsley & Cross, 1992; Jepson & Forrest, 2006). Additionally, Huang and Waxman (2009) examined the relationship between school environment and the commitment to teaching of student teachers. The present study focused on the connection between ethical orientation and occupational commitment, which has received little attention in the literature (Elias, 2006; Shaub Finn, & Munter, 1993). The potential connection between ethics and occupational commitment was determined to be significant because of the acknowledged importance of ethics in education and the relationship of occupational commitment to teacher attrition.

Nature of Problem

Attrition refers to the voluntary departure of a person from a profession (Ingersoll, 2001). Teacher attrition has been a focus of researchers for many years (Chapman & Hutcheson, 1982; Kearney, 2011; Macdonald, 1999; Mobley, 2011; Williams, 2004). To

effectively address the problem of teacher attrition, it is important to find predictors of attrition that can be used to identify teachers who may be intending to leave the profession. The majority of teacher attrition research has focused on the impact of external factors such as teacher pay or tenure and personal characteristics such as gender or race. A 2008 meta-analytic review by Borman and Dowling examined 34 quantitative studies of teacher attrition and retention. Nineteen studies included gender; 13 studies included race or ethnicity; 10 studies included age. None of the studies in the meta-analysis included factors such as personality characteristics or personal values.

Drew, Carless, and Thompson (2008) noted in the introduction to their study on police officer personality and turnover that "empirical interest in the relationship between personality and turnover has been limited" (p. 326). In their study, Drew et al. (2008) utilized the 16 personality factor questionnaire to uncover information about respondents' personality. Personality factors from the questionnaire included reasoning, rule-consciousness, openness to change and self-reliance. Although descriptive, few of the variables other than rule-consciousness were related to the respondents' values. Personal values as a research concept was developed by Rokeach (1968):

To say that a person 'has a value' is to say that he has an enduring belief that a specific mode of conduct or end-state of existence is personally and socially preferable to alternative modes of conduct or end-state of existence. Once a value is internalized it becomes, consciously or unconsciously, a standard or criterion for guiding action ...
(pp. 159, 160)

Ethical orientation was defined as the "system of ethics used to make moral judgments" (Henle, Giacalone, & Jurkiewicz, 2005, p. 219). An individual's ethical orientation, therefore, is a description of their values. The relationship between ethical orientation and occupational commitment has largely gone unexplored in the research literature. To date, fewer than six studies have been located on the topic (Elias, 2006; Shaub et al., 1993).

Ethical orientation, as conceptualized in the present study, is not the same as ethical decision making. Ethical orientation is descriptive, whereas ethical decision making has a focus on the process or the application of an individual's ethical orientation (Tenbrunsel & Smith-Crowe, 2008). One of the most common measures of ethical orientation, the Ethical Position Questionnaire (EPQ), was developed by Forsyth in 1980. The EPQ measures the level of idealism and relativism of respondents. A person with a high degree of idealism believes that moral absolutes exist; a person with a high degree of relativism believes moral absolutes do not exist (Deering, Cavenagh, & Kelley, 1994; Forsyth, 1980; Reidenbach & Robin, 1990). In this study, ethical orientation was represented by an individual's levels of idealism and relativism.

Despite the acknowledged importance of ethics in education, the subject of ethical orientation has been the focus of few studies. Even fewer studies have focused on teachers as the research subjects. However, in two studies, Deering and coworkers (1994, 1998) determined that teachers were more idealistic than relativistic, and that the ethical orientation of education and business majors were dissimilar. In other words, teachers generally believed that moral absolutes existed but disagreed on whether or not the collective good

must be considered when determining if an action was moral or not. In the second study a comparison of American and British preservice teachers, Deering (1998) found that the general ethical orientations of British and American preservice teachers were dissimilar and wrote in his conclusion that "this [ethical orientation] is a rich field for study"(p. 357).

In the United States, school age students are often grouped into three types of schools: primary, middle, and secondary. Until the early 1990s, much of the research on schools and educators assumed the entire K12 system was homogeneous in terms of organization and population (Siskin, 1991). Unlike primary or middle school, however, secondary schools are typically organized by academic subject instead of student grade level (Siskin, 1991). The organization of secondary schools by academic subject has been shown to create a set of subcultures within the larger school (Grossman & Stodolsky, 1995; Siskin, 1991). The importance of school subcultures was noted early on by deBrabander, who wrote "subcultural differences are important first of all because it is not reasonable to portray the teaching profession as a uniform profession whose members respond with identical reactions" (1993, p. 102). School subcultures have been shown to impact teacher beliefs about curriculum (Stodolsky and Grossman, 1995), resistance to school reforms (Siskin, 1997; Timperley & Robinson, 2000), and computer use and adoption (John, 2005; John & LaVelle, 2004; Selwyn, 1999). Since the presence of school subcultures has been demonstrated to impact teacher behaviors, the variable of academic departments must be considered as a potential mediating variable in the relationship between teachers' ethical orientation and occupational commitment.

Ethics has been repeatedly acknowledged as a central component of education. The lack of research on the ethical orientation of teachers represents a gap in the literature that needs to be filled. Additionally, a study of the relationship between ethical orientation and occupational commitment presents an opportunity to identify a new predictor variable. If ethical orientation can be shown to predict a teacher's occupational commitment, teachers with decreased occupational commitment can be identified before attrition occurs. Early identification of teachers prone to attrition provides an opportunity to work proactively with them to deter their departure from the profession.

The ethical orientation of teachers can be parsimoniously described by the use of ethical position theory (Forsyth, 1980). The relationship between a teacher's ethical orientation and an academic department or between ethical orientation and occupational commitment may be described in terms of fit. Carless (2005) described fit as being a subjective process on the part of the employee, rather than an objective determination. Person-vocation fit, a subcategory of person-environment fit, was used to examine the relationship between fit and commitment. In Carless's study of police officers, the officers' perception of fit was a significant predictor of career commitment ($\beta = 0.38, t = 3.33, p < 0.001$) and intention to remain in the profession ($\beta = 0.35, t = 3.68, p < 0.001$). A combination of ethical position theory and person-vocation fit, therefore, was used as the theoretical framework for the present study.

Problem Statement

Teacher attrition is an ongoing concern in K12 education (Keigher, 2010). Attrition is a form of turnover; levels of occupational commitment have been related to turnover intent (Klassen & Chiu, 2011). The relationship between occupational commitment and a number of personal, descriptive variables has been shown (Lee et al., 2000; Weng & McElroy, 2012).; however, the relationship between occupational commitment and ethical orientation has not been examined.

The importance of ethics to education and teaching has been generally accepted (Campbell, 2003; Strike & Soltis, 2009), but little empirical research exists. Prior work has demonstrated that the ethical orientation of teachers is more idealistic than relativistic (Deering, 1998; Deering et al., 1994). The organizational structure of secondary schools creates a set of subcultures centered on academic departments (Grossman & Stodolsky, 1995; Siskin, 1991). The presence of subcultures may impact the potential relationship between ethical orientation and occupational commitment.

If teachers' personal levels of idealism and relativism are not consistent with the mean levels of idealism and relativism found in their academic department and/or the overall teaching profession, their occupational commitment may suffer. As a consequence, teachers may leave the profession.

Purpose Statement

The purpose of this exploratory study is to examine the relationships between a secondary teacher's personal levels of idealism and relativism, their academic department, and their occupational commitment to the field of teaching.

Theoretical Framework

The theoretical framework of the study was created through a synthesis of three theories/concepts: (a) ethical position theory (Forsyth, 1980), (b) person-vocation fit, and (c) value consonance (Rosenberg, 1977). Each theory or concept is briefly described, and a visual representation of the theoretical framework is presented (see Figure 1.1)

Ethical Position Theory

In 1980, Forsyth posited that an individual's moral philosophy could be categorized through the measurement levels of idealism and relativism. Combining idealism and relativism creates a four category classification system of moral philosophy: absolutist, exceptionist, situationist, and subjectivist. Ethical position theory has been utilized in a wide variety of fields, including accounting (Clikeman, Schwartz, & Lathan, 2001; Shaub et al., 1993; Ussahawanitchakit, 2012), marketing (Donoho, Heinze, & Kondo, 2012; Singhapakdi, Kraft, Vitell, & Rallapalli, 1995; Karande, Rao, & Singhapakdi, 2002), and education (Beach & Eriksson, 2010; Butler, S. L., 2009; Deering, 1998; Deering et al., 1994; Eyal, Berkovich, & Schwartz, 2011; Landry, Moyes, & Cortes, 2004; Putranta & Kingshott, 2011). The majority of researchers have simply measured the levels of idealism and relativism without

further categorization (Forsyth, O'Boyle, & McDaniel, 2008). A similar strategy was utilized in the present exploratory study.

Person-Vocation Fit

Baumeister and Leary (1995) noted that "the need to belong is a fundamental motivation" (p. 497). Person-vocation fit theory sits within the larger theory of person-environment fit (Vogel & Feldman, 2009). The theory of person-environment fit developed out of early theories such as Holland's theory of vocational personalities (1959, 1985) and Schneider's theory of attraction/selection/attrition (Schneider, 1987; Schneider, Goldstein, & Smith, 1995). The theory of value consonance (Rosenberg, 1977) provides both a mechanism for defining "fit" and for explaining the consequences of a lack of fit. Rosenberg (1977) explained the concept of value consonance as "a place where certain things are said or remain unsaid, where characteristic points of view prevail, where tacit assumptions underlie explicit messages, where shared norms, ideas, values hold sway" (p. 206). Essentially, people look for vocations and organizations that match their personal characteristics in terms of skills, abilities, attitudes, and values. If a person chooses a vocation or organization that is not a good match, the person is likely to leave.

Value Consonance

Value consonance was differentiated from value congruence by Lupini (1965, as cited in Hodgkinson, 1970). Hodgkinson paraphrased Lupini's explanation of the term consonance as the "similarity or homogeneity of values within a group" (1970, p. 47). Rosenberg

(1977) explained the concept of value consonance as "a place where certain things are said or remain unsaid, where characteristic points of view prevail, where tacit assumptions underlie explicit messages, where shared norms, ideas, values hold sway" (p. 206). Value consonance may be used to conceptualize the idea of "fit" as used in person-vocation fit.

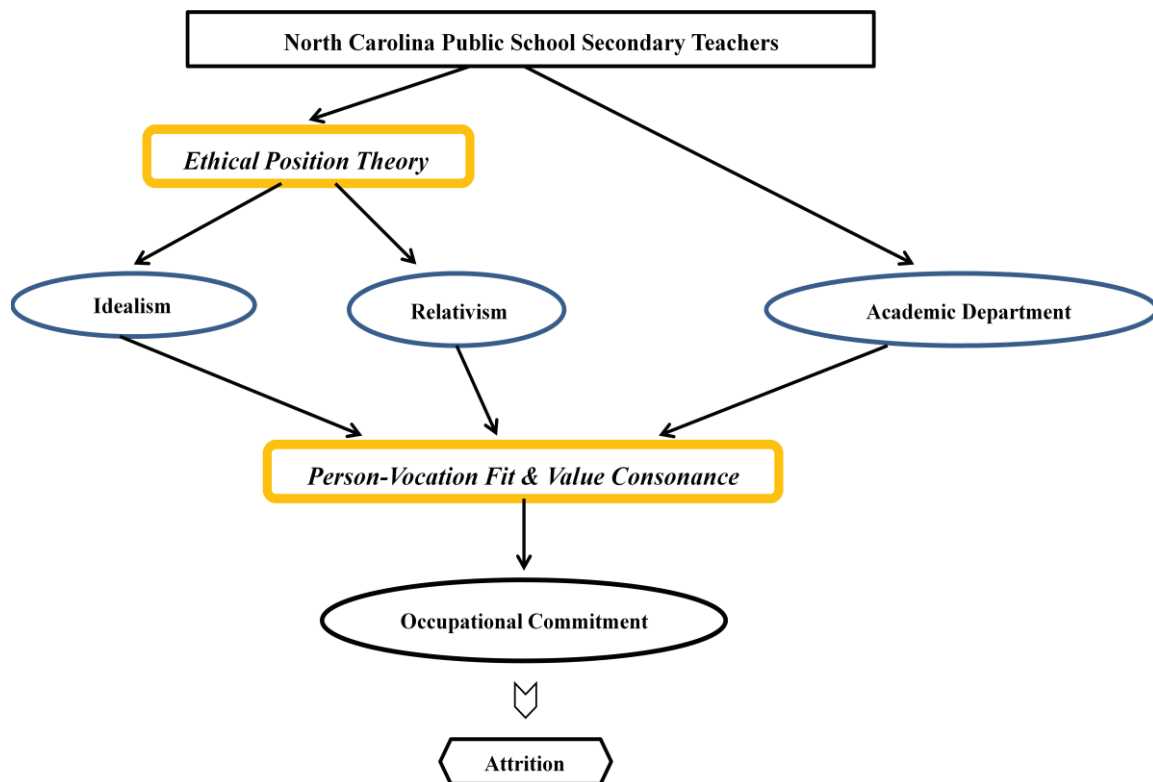


Figure 1.1 Visual representation of study's theoretical framework .

Note: Theories used in the framework are presented in round-cornered rectangles. Attrition, the outcome variable, was not measured in the present study.

Conceptual Framework

The conceptual framework for the study, which highlights the variables used and shows the relationships to be examined, is illustrated in Figure 1.2. Table 1.1 offers additional information about the dependent and independent variables used in the present study. The primary independent variables are idealism and relativism, which are being used to describe the ethical orientation of teachers. The other independent variable in the study is academic department. North Carolina has explicit graduation requirements for its secondary students; the categories of the academic department variable were taken from these requirements (DPI, 2012). The primary dependent variable in the study was occupational commitment. Occupational commitment, as described by Meyer, Allen, and Smith (1993) consists of three components. In this exploratory study, occupational commitment was not broken down into its components; rather, the components were summated to create a composite occupational commitment score.

The study included five demographic variables in addition to the four independent / dependent variables. The demographic variables of age, gender, ethnicity, and tenure have been commonly used in research on attrition, turnover, and occupational commitment. The demographic variable of preservice training was included because of the increasing number of second-career or lateral entry teachers. Preservice training was not utilized in the present study but was collected for future analysis.

The outcome variable, attrition, was not measured directly in the present study. Previous work, however, suggested a negative link between occupational commitment and

attrition (Ciftcioglu, 2011; Klassen & Chiu, 2011; Lee et al, 2000; Nogueras, 2006; Weng & McElroy, 2012).

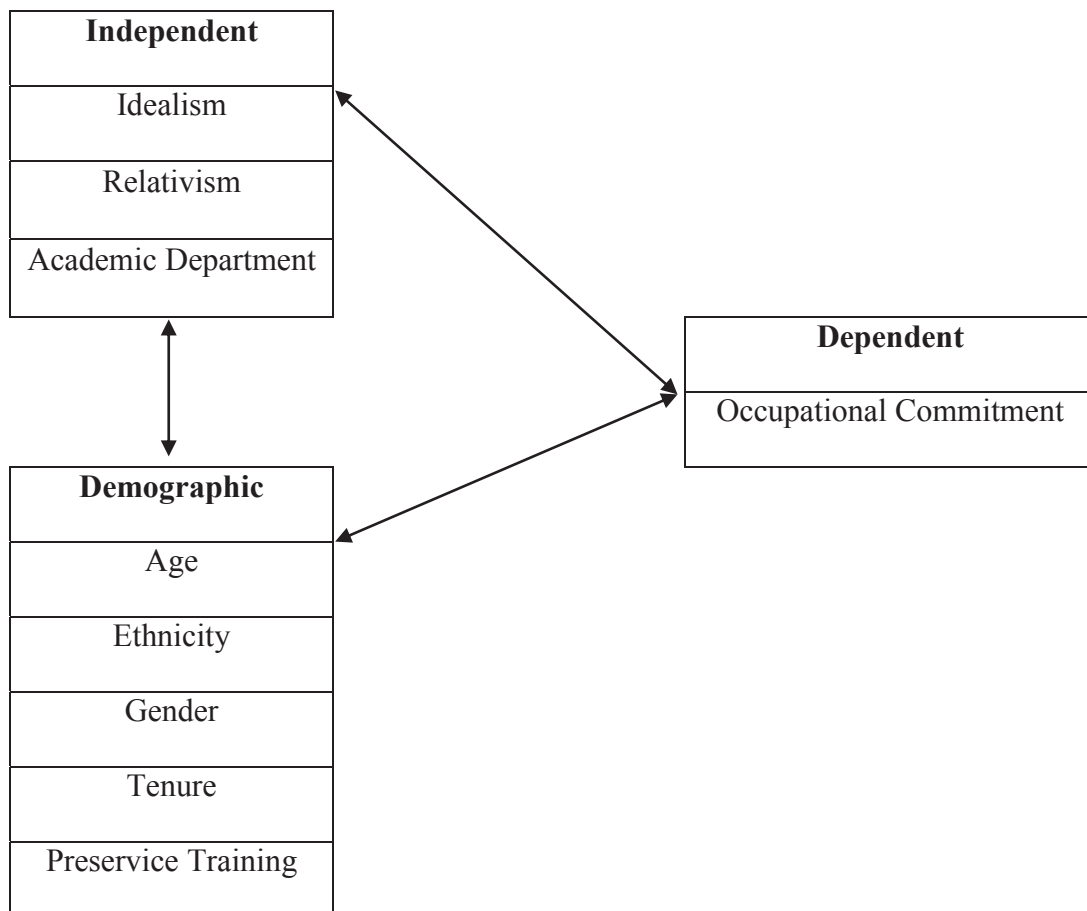


Figure 1.2. Conceptual framework highlighting study variables.

Table 1.1

Details of Dependent and Independent Variables

Name	Type	Details
Occupational Commitment (OC)	Dependent	Affective OC Continuance OC Normative OC
Ethical Orientation	Independent	Idealism Relativism
Academic Department	Independent	Career / Technical English Fine Arts Mathematics Science Social Studies World Languages Health & Physical Education

Research Questions and Hypotheses

Eleven research questions and eight hypotheses guided the present study. The research questions provided for descriptive and quantitative analysis of the following study variables: academic department, idealism, relativism, and occupational commitment. The hypotheses established the analytical framework of the quantitative research questions. In the research questions, (DV) stands for dependent variable and (IV) stands for independent variable. The research questions and associated hypotheses were:

- 1) What are the demographics (age, ethnicity, gender, tenure) of North Carolina (NC) secondary school teachers?
- 2) Which academic department best fits NC secondary school teachers' work assignments ?
- 3) How do NC secondary school teachers score on the EPQ idealism scale?
- 4) How do NC secondary school teachers score on the EPQ relativism scale?
- 5) How do NC secondary school teachers score on the OCS scale?
- 6) Is there a significant difference in idealism (DV) between teachers in different academic departments (IV)?

H₆: There is a significant difference between the idealism of teachers in different academic departments.

- 7) Is there a significant difference in relativism (DV) between teachers in different academic departments (IV)?

H₇: There is a significant difference between the relativism of teachers in different academic departments.

8) Is there a relationship between idealism and occupational commitment?

H₈: There is a relationship between idealism and occupational commitment.

9) Is there a relationship between relativism and occupational commitment?

H₉: There is a relationship between relativism and occupational commitment.

10) Is there a relationship between academic department and occupational commitment?

H₁₀: There is a relationship between academic department and occupational commitment.

11) Do idealism (IV), relativism (IV), and/or academic department (IV) explain a significant amount of variance in the occupational commitment (DV) of NC secondary teachers?

H_{11a}: Academic department explains a significant amount of the variance in occupational commitment.

H_{11b}: Idealism explains a significant amount of the variance in occupational commitment.

H_{11c}: Relativism explains a significant amount of the variance in occupational commitment

Significance of Study

The present study provided for a fuller understanding of North Carolina secondary teachers by assessing their idealism and relativism. The study provided for a fuller understanding of secondary subculture by exploring the potential relationship between

teachers' idealism, relativism, and their academic departments. The study also explored the potential relationship between teachers' idealism and relativism and their occupational commitment. The study added to the research literature on the ethics of teaching, teachers ethical orientation, the concept of secondary subculture and teacher's occupational commitment by examining the relationships between occupational commitment, idealism, relativism, and a teacher's academic department. By exploring the relationship among these variables, the study added to researchers and practitioners' understanding of the possible causes of secondary teacher attrition.

Limitations

The study was limited in the following ways:

- The data utilized in the study was obtained through voluntary participation. Non-respondents may have differed from participating respondents (Sackett, 1979).
- The data sample ($N=126$), although sufficient for statistical analysis, was small.
- The study was designed to represent the major geographic areas of North Carolina (Western mountains, Piedmont, Eastern coastal plain). The final sample included respondents from the Western mountains and the Piedmont but not from the Eastern coastal plain.
- In the summer of 2013, the North Carolina state legislature proposed multiple changes as part of education reform. These changes included proposals for tenure elimination and loss of supplemental pay for advanced degrees (Helms, 2013; Imig & Smith, 2013). Although the impact of the political situation on data collection cannot

be known for sure, the likelihood of a negative impact on occupational commitment must be acknowledged.

- The study sample was constrained by the need to accommodate requests from local school officials to minimize impact on participating teachers and in one county, to limit the sample to certain schools.
- Simple random sampling was not proposed for use in the study due to issues with obtaining current contact data on potential study participants from the North Carolina Department of Public Instruction (J. Strycker, personal communication, March 20, 2013).

Delimitations

The study was delimited in the following ways:

- The study was limited to secondary teachers in public schools within North Carolina.
- Teachers were sorted by academic department in the sample.
- A combination of purposive and random sampling was utilized in the study.

Definition of Terms

Absolutist - Forsyth (1980, p. 176) described absolutists as people who tend to agree with the ethical philosophy of deontology.

Academic Department - Siskin (1991) defined academic departments as teacher groupings organized by academic subjects (disciplines). Academic department, academic subject, and academic discipline were used interchangeably in the study.

Affective Occupational Commitment (AOC) - Meyer et al. (1993) defined affective occupational commitment as "a strong desire to remain in the occupation" (p. 540).

Attrition - Ingersoll (2001) defined attrition as the voluntary departure of a person from a profession.

Commitment - Meyer and Allen (1991) defined commitment "as a psychological state" (p. 61) consisting of three components that reflect the worker's desire, need, and obligation to the object of commitment.

Continuance Occupational Commitment (COC) - Meyer et al. (1993) defined continuance occupational commitment as recognizing the presence of "high costs associated with leaving the occupation" (p. 540) .

Deontology - Forsyth (1980) defined deontology as a philosophy that "rejects the use of an action's consequences as a basis for moral evaluation and appeals to natural law or rationality to determine ethical judgments" (p. 176).

Ethical Orientation - Henle et al. (2005) defined ethical orientation as "a system of ethics used to make moral judgments" (p. 219). Ethical orientation is measurable in terms of levels of idealism and relativism (Forsyth, 1980).

Ethics - Ruggiero has offered one of the simplest definitions of ethics, writing "ethics is the study of choices people make regarding right and wrong" (2012, p. 2).

Exceptionist - Forsyth (1980, p. 177) described exceptionists as people who tend to agree with the ethical philosophy of teleology.

Idealism - Shaub et al. (1993) defined idealism as "the extent to which an individual believes that desirable consequences can be brought about without violating moral guidelines" (p. 148), a definition similar to that posed by Forsyth (1980).

Normative Occupational Commitment (NOC) - Meyer et al. (1993) defined normative occupational commitment as having "a sense of obligation" (p. 540) to remain in the profession.

Occupational Commitment – Lee et al. (2000) defined occupational commitment "as a psychological link between a person and his or her occupation" (p. 800). Meyer et al. (1993) identified three components of occupational commitment: affective, normative, and continuance.

Person-vocation fit - Vogel and Feldman (2009) defined person-vocation fit as "the congruence between individuals' interests and abilities and the characteristics and requirements of their vocation" (p. 7). In their definition, the authors referred back to Holland (1985).

Relativism - Shaub et al. (1993) define relativism as "the rejection of absolute moral rules to guide behavior" (p. 148), a definition similar to that posed by Forsyth (1980).

Relativist - Forsyth (1980) defined a relativist as a person who "reject[s] the possibility of formulating' or relying on universal moral rules when drawing conclusions about moral questions" (p. 175).

School subculture - Goodson and Mangan (1995) defined school subculture as "the general set of institutionalised practices and expectations which has grown up around a particular school subject, and which shapes the definition of that subject as both a distinct area of study and as a social construct" (p. 615).

Secondary school - The state of North Carolina (Department of Public Instruction, n.d.) defines the secondary grades as consisting of grades 9-12; a building containing secondary grades is commonly referred to as a high school.

Situationist - Forsyth (1980) defined a situationist as a person who "rejects moral rules: advocates individualistic analysis of each act in each situation" (p. 176).

Subjectivist - Forsyth (1980) defined a subjectivist as a person who makes "appraisals based on personal values and perspective rather than universal moral principles" (p. 176).

Teaching Experience - Fresko, Kfir, and Nasser (1997) defined teaching experience as the number of years taught since completing preservice training.

Teleology - Forsyth (1980) defined teleology as an ethical philosophy which "proposes that the morality of an action depends on the consequences produced by it" (p. 177).

Utilitarian - Forsyth (1980) defined utilitarian as someone who uses moral absolutes to "guide judgments but [is also] pragmatically open to exceptions to these standards" (p. 176).

CHAPTER TWO

Literature Review

The study was about the ethical orientation and occupational commitment of secondary school teachers in North Carolina. The literature review included examining several academic disciplines such as accounting, business, education, marketing, and psychology. Five primary topics were used to organize the literature review: (a) teaching and education, (b) ethics and education, (c) occupational commitment, (d) occupational commitment and ethical orientation, and (e) theoretical framework. The review begins with an examination of teaching and attrition at the secondary level, followed by a discussion of the connection between ethics and education. The concept of occupational commitment is then introduced and its relationship with teachers, attrition, and ethical orientation explored. Finally, the theoretical framework of the study is established before the literature review was summarized.

Teachers and Attrition

The study used secondary teachers in North Carolina as the sample. In this section of the literature review, information about the organization of secondary schools and the creation of a teacher subculture are examined. The outcome variable of the study, teacher attrition, is defined and previous research discussed.

Secondary Teacher Subculture

Secondary schools, also referred to as high schools, consist of students in grades 9 through 12 (North Carolina Department of Public Instruction, n.d.). In a discussion of professional development in secondary schools, Little stated "subject-area departments form the taken-for granted structure of the American secondary school" (1995, p. 198). Siskin (1994) identified Teach for America and lateral entry programs as support for her assertion that content knowledge had become more important than pedagogical knowledge. Organization of secondary schools by content has not only been a result, but also a driver of teacher specialization.

The organization of high schools by academic subject has been shown to create a set of subcultures within the larger school context (Grossman & Stodolsky, 1995; Siskin, 1991). In their introduction to *The Subjects in Question: Departmental Organization and the High School*, Siskin and Little wrote

If we listen to high school teachers talk about their work, subject departments emerge frequently, and in a variety of ways secondary teachers do consistently frame their work in terms of subject and department. Subject departments form the primary organizational unit of the high school, defining in crucial ways who teachers are, what they do, where and with whom they work, and how that work is perceived by others. (1995, p. 1)

Siskin (1994) noted three ways teachers focused on departments: (a) socially, as seen by teachers' use of "we;" (b) politically, as seen by the way departments occupy leadership roles and jockey for power/ money; and (c) subjectively, as seen by the frequent use of subject name as both a descriptive and a means of separation from the whole faculty. Consequently, research involving secondary teachers was more complicated because the organizational structure of secondary schools was more complex than that of elementary schools or middle schools (Johnson, 1990). The complexity was only heightened by the inconsistency of some research on subject departments. For example, in a review of studies conducted during the 1980s, Talbert concluded as with subunits in organizations more generally, the strength of high school department boundaries is properly taken as a *variable* (author emphasis) for analysis" (1995, p. 71). However, deBrabander (1993) noted "teachers of the same subject at the same level of education belong to a common subculture that transcends particular schools" (p. 85) which simplifies the research process by permitting teachers at multiple high schools to be congregated together by academic subject.

Previous research demonstrated the impact of secondary school subculture on teacher's beliefs about curriculum (Stodolsky and Grossman, 1995), resistance to school reforms (Siskin, 1997; Timperley & Robinson, 2000), and computer use and adoption (Goodson & Mangan, 1995; John & LaVelle, 2004; Selwyn, 1999). Stodolsky and Grossman (1995) examined surveys administered as part of a larger study to determine if teacher beliefs about curricular content and coordination were reflected in their academic subject (academic department). The results indicated math and foreign language teachers perceived their subjects as having a more "well-defined body of knowledge and skills" (p.

235) than science, English, or social studies teachers. In a similar manner, math and foreign language teachers perceived their subjects as being more sequential and requiring more coordination than science, English, or social studies teachers.

In a case study of three secondary schools (Siskin, 1997), principals who attempted to undertake educational reform discussed their attempts to overcome resistance from the academic departments. The principals used a variety of strategies to alleviate resistance: one principal restructured departments by students rather than academic subject, another weakened the department structure by assigning an administrator to actively participate in daily school operations (thereby lessening departmental authority), and the other principal attempted to build bridges between departments by encouraging cross-curricular professional development and instruction. Siskin (1997) concluded the study by noting "principals, reformers, or leaders who want to make change in high schools have to deal with departments ...the cases illuminate a persistent, and intricate, dilemma of high schools" (p. 622). In a case study of a New Zealand secondary school, Timperley and Robinson (2000) found the presence of departments contributed to teacher workload and stress as the school shifted to a site-based management model.

In an early study on the introduction of computers in the classroom, Goodson and Mangan (1995) found teachers in certain subjects were more open to the use of computers. For example, art and family studies teachers seemed less worried than geography or history teachers regarding the incorporation of classroom computers. Selwyn (1999) used a combination of focus groups and semi-structured interviews to the influence of subject

culture (academic department) on the use of computer technology. Art teachers, for example, were less likely to use computers in instruction than a geography teacher. In an examination of information and communications technology (ICT) use in the classroom, John and LaVelle (2004) conducted semi-structured interviews of 25 teachers (five each in five subject areas). Science and math teachers were more amenable to and accepting of the use of ICT as a pedagogical tool than English or music teachers.

Research has established the organization of secondary schools around academic subject instead of students. Research has also shown that the secondary subculture has an impact on a variety of issues. Consequently, the use of academic department as a study variable was justified. In the study, academic department was considered to be the same as academic subject or academic discipline.

As Table 2.1 shows, high school graduation requirements in North Carolina, are based around academic subjects. Junior Reserve Officer Training Corps (JROTC) was not included in the study because JROTC classes are not a graduation requirement. In addition, JROTC programs are not available at all North Carolina high school.

Table 2.1

North Carolina High School Graduation Requirements for Rising Ninth Graders in the 2012-2013 School Year

Content Area	Minimum Credits	
	Future-Ready Core	Future-Ready Occupational
Arts	0	0
Career/Technical	0	4
English	4	4
Mathematics	4	3
Science	3	2
Social Studies	4	2
World Languages	0*	0*
Health & Physical Education	1	1
Elective Credits	6	6

Note. Information in table adapted from "High School Graduation Requirements," located at <http://www.ncpublicschools.org/curriculum/graduation/>. Elective credits often incorporate classes in Arts, World Languages, and Career/Technical content areas. * 2 credits required for admission to any University of North Carolina system school

Teacher Attrition

The outcome variable of the study was teacher attrition; although attrition was not measured in the study, the motivating impetus of the study was the recognition that student achievement has been linked to teacher attrition. Attrition has been linked to occupational commitment, which was the dependent variable used in the study.

Definition of attrition.

Organizational turnover has been a focus of research since the early 1900s (Price, 1977). Mobley (1982) defined turnover as "people leaving organizations"(p. 1). Turnover was more specifically defined by Price (1977) as "the degree of individual movement across the membership boundary of a social system" (p. 4). Much of the research on turnover has focused on voluntary turnover; that is, turnover initiated by the individual and not the organization (Price 1977). Individuals leave organizations for a variety of reasons, including personal or familial obligations, a new job within the same profession, or a new job in a different profession. Ingersoll (2001) defined attrition as a subset of voluntary employee turnover where individuals leave a profession or occupation entirely. Although most of the research has focused on voluntary turnover as a general concept, it was reasonable to infer research on attrition would yield similar results because attrition is a subset of the turnover concept.

Impact of turnover.

The present study was oriented within the discipline of education. Tinto (2006-2007) and other researchers have examined student retention in community college higher education, but the foundation of turnover research was carried out in other disciplines such as business. Although the majority of turnover research has not been carried out in that discipline, the research was considered to be applicable because of the general definition of turnover as "people leaving organizations" (Mobley, 1982, p. 1).

As part of his codification of the turnover literature, Price (1977) identified six impacts of turnover on organizations. As general turnover increased, the number of administrators relative to the number of production workers increased. On the other hand, an increase in general turnover decreased the amount of employee job satisfaction, workplace integration, and the rate of innovation. When the amount of managerial turnover increased, formalization of communication in terms of rules, policies, and procedures also increased. However, as the amount of managerial turnover increased, the amount of centralization in the organization decreased.

Writing from a managerial perspective, Mobley (1982) focused on the positive and negative impacts of turnover on organizations. Positive impacts to the organization included the potential loss of poorly performing employees, a reduction in inter-employee conflict and an overall decrease in withdrawal behaviors such as absenteeism. Like Price, Mobley identified potential benefits from increased flexibility and adaptability of remaining employees. Negative consequences of turnover included potential disruption of other

employees' work projects, routines, social communication patterns, and a decline in employee morale. Two negative impacts not mentioned by Price concerned the actions taken by organizations in response to turnover. Poorly planned strategies or policies designed to combat turnover sometimes had negative consequences on remaining employees. If employee turnover impacted strategic positions, organizations were possibly forced to alter business plans and forsake expansion opportunities.

The general consensus from the literature confirmed the two sided nature of employee turnover. Some employee turnover could be beneficial to an organization; in fact, some studies connected turnover to increased effectiveness due to decreased withdrawal behaviors. Other studies indicated the potential negatives of turnover on organizations. As a result of mixed research results, no clear conclusion has been drawn regarding the impact of turnover on organizational effectiveness (Price, 1977).

The research on turnover impact was applicable to the present study because of the generalized nature of its definition. In education, one positive benefit of turnover would be the decrease of withdrawal behaviors. Withdrawal behaviors such as increased absenteeism would negatively impact student achievement through the loss of instructional time. On the other hand, the potential loss of quality teachers due to turnover would clearly be detrimental to student achievement.

Associated factors such as age and tenure.

Much of the research associated with turnover focused on identifying underlying causes or correlated factors. An early review of employee withdrawal behaviors by Porter and Steers (1973) assessed the literature in terms of personal characteristics, organizational factors, the immediate work environment, and job content factors. Age, tenure, pay satisfaction, supervisor satisfaction, and coworker satisfaction all demonstrated a negative relationship with turnover. Work unit size and task repetitiveness were among the few factors which demonstrated a positive relationship with turnover.

In his codification of the literature, Price (1977) referred to factors that correlated with or described turnover as *correlates*; he used the term *determinant* to identify factors that showed a causal connection with turnover. Correlates were divided into three categories, based on the strength of research support. Correlates with strong research support indicated increasing turnover was related to a short tenure, younger employees, and times with high levels of employment. Correlates with medium research support indicated unskilled workers had higher turnover than skilled workers, blue collar workers had higher turnover than white collar workers, and U.S. workers had higher turnover than workers in other industrialized countries. Correlates with weak research report indicated increasing turnover was associated with better education, non-managerial positions, and positions in government organizations. In his review of organizational turnover literature, Price located fewer determinants than correlates. Factors that decreased turnover in a predictable manner included satisfaction with salary, employee integration, informal and formal communication within the organization.

Amount of centralization was the only determinant that increased turnover in a predictable manner.

Mobley (1982) used the term determinant as a more general framework than Price; Mobley's use of the term corresponded most closely with Price's use of the term correlate. Mobley identified five determinants: employment level, pay, age, work unit size, and tenure. Low employee age, short length of tenure, and increasing work unit size were associated with increasing turnover, while increasing unemployment levels and pay were associated with decreasing turnover.

The research literature consistently demonstrated youth and short terms of service were related to increased turnover. Satisfaction with pay and congenial relationships with fellow employees contributed to decreased turnover. Although turnover could be beneficial or detrimental, research indicated that excessive turnover was a situation to be avoided. While much of turnover research was carried out in disciplines other than education, the results could be reasonably extended to education because of the definition of turnover as "people leaving organizations" (Mobley, 1982, p. 1).

Impact of teacher attrition.

"Every school day, nearly a thousand teachers leave the field of teaching" (Alliance for Excellent Education [AFEE], 2005, para. 1). In one school year (2009-2010), over 173,000 teachers (5.8%) in the United States left the field of teaching at an estimated cost of more than 2.15 billion dollars (AFEE, 2005). More specifically, the loss of 7,148 teachers (8.4%) in 2009-2010 cost the state of North Carolina almost 84.5 million dollars (AFEE,

2005). Two years later, the National Commission on Teaching and America's Future (NCTAF, 2007) introduced a policy brief with the following statement:

America's schools are struggling with a growing teacher dropout problem that is costing the nation over \$7 billion a year. It is draining resources, diminishing teacher quality, and undermining our ability to close the achievement gap ... Teacher attrition has grown by 50 percent over the past fifteen years. The national teacher turnover rate has risen to 16.8 percent. (NCTAF, 2007, Introduction, para. 1 and 4).

More recently, the National Center for Education Statistics (Keigher, 2010) published a report on teacher attrition and mobility by using data from the 2008-2009 Teacher Follow-up Survey. According to the report, 8.0% of public school teachers left the teaching profession after the 2007-2008 school year while 15.9% of private school teachers left the teaching profession.

Recent concern with teacher attrition can be traced to a series of reports by Ingersoll in the early years of the twenty-first century (Ingersoll, 2000; Ingersoll, 2001; Ingersoll, 2002; Ingersoll & Smith, 2003). In 2002, Ingersoll offered a series of data-based calculations on teacher attrition:

After 1 year, 11% of beginning teachers have left the profession; another 10% leave after their second year ... After just 3 years, 29% of all those in the typical beginning teacher cohort have left teaching altogether, and after 5 years, fully 39% (more than one-third) are gone from the teaching ranks (2002, p. 23).

Although a few studies estimated teacher attrition rates at less than 10% (Keigher, 2010), concern continued over the ongoing and significant loss of teachers from the profession.

In 1999, Macdonald described a global view that attrition was "an impediment to the educational, social, cultural and economic goals of schools and communities" (p. 841). In the summary report of *No Dream Denied* (NCTAF, 2003), the authors noted "the most serious long-term consequence of high teacher turnover is the erosion of teaching quality and student achievement" (p. 14). As evidence, the report's authors cited studies on student achievement in Boston, Dallas, and Tennessee. In the study from Tennessee, Sanders and Rivers (1996) used data from the Tennessee Value-Added Assessment System (TVAAS) to estimate the "cumulative effects of teachers on student academic achievement over grade levels" (p. 1). The preliminary results of their study indicated students with less effective teachers ended up more than 50 percentile points lower than students with highly effective teachers. A study from Dallas (Archer, 1998) that used the same analytical method as the Tennessee study suggested more effective teachers may not be able to make up for less effective teachers. A group of sixth graders who had less effective teachers for two years followed a more effective teacher the third year dropped from the 60th percentile to the 50th percentile. In both studies, teacher effectiveness was rated by comparison of their students' test scores to groups of other, similar students. Students' socioeconomic situations were also taken into account when evaluating teacher effectiveness. A more recent report from the National Center for Analysis of Longitudinal Data in Education Research (Ronfeldt et al., 2012) presented evidence that teacher turnover has "a significant and negative effect on student achievement in both math and ELA [English Language Arts] ... moreover, teacher

turnover is particularly harmful to the achievement of students in schools with large populations of low-performing and black students" (p. 21). The preponderance of evidence indicates teacher attrition is reflected in student performance.

Associated factors such as age and tenure.

Teacher attrition has been an ongoing concern for many years (Chapman & Hutcheson, 1982; Macdonald, 1999; NCTAF, 2007). In reporting the results of their discriminate analysis, Chapman and Hutcheson stated:

Differences between people remaining in and those leaving teaching were not explained by difference in sex, race, current age, or the institution a person attended However, those who left and those who did not leave teaching different significantly in their self-rated skills and abilities. (Chapman & Hutcheson, 1982, p. 103)

The authors also noted teachers who placed a greater emphasis on salary increases and the amount of autonomy were more likely to leave teaching. Personal factors such as gender and race were not related to attrition; however, external factors such as pay and power to make decisions were negatively related to attrition.

A more recent review of the attrition literature by Macdonald (1999) both concurred and disagreed with the results reported by Chapman and Hutcheson. Macdonald noted the difficulty of comparing research reports due to varying definitions of the terms "attrition" and "teacher" but still sought to clarify the picture. Globally, research indicated that teachers at the beginning of their career were more likely to leave as were teachers who were not

comfortably situated economically due to low teacher salaries. As in Chapman and Hutcheson, the external factor of poor salaries was connected to teacher attrition. Unlike Chapman and Hutcheson, teacher age did have an impact on attrition, at least in terms of how long the teacher had been working in education.

Williams (2004), Mobley (2011), and Kearney (2011) each studied teacher attrition or retention (the obverse of teacher attrition) as the focal topic of their doctoral dissertations. Williams (2004) examined a series of internal and external factors and their relationship to attrition of special education teachers in North Carolina. The internal factors were teacher age, gender, ethnicity, degree held, license type, license area, and years of experience. The external factors were teacher salary supplements, percentage of students in poverty, and academic performance of students. The internal factors of ethnicity, license type, and license area all had an impact on attrition; the only external factor with an impact on teacher attrition was the poverty rate of students.

Mobley (2011) and Kearney (2011) examined teacher retention. Focusing on novice teachers from urban secondary schools in southeastern Georgia, Mobley identified positive correlations between teacher retention and salary, mentoring, working conditions, demographics (age, gender, ethnicity, cultural experience) and years of teaching experience. Through a phenomenological study of veteran teachers in Wake County, North Carolina, Kearney discovered veteran school teachers stayed at high-poverty elementary schools because they felt a "sense of calling, purpose, and challenge" (p. 81), plus a wealth of intrinsic rewards and opportunities to develop and demonstrate leadership.

The study of teacher attrition has yielded results similar to studies on general turnover. Employees at an early stage in their career were more likely to experience turnover; employees unhappy with their salaries were also more likely to experience turnover.

Previous research indicated the presence of a subculture in secondary education due to its organization by academic discipline. Teacher attrition was defined as the voluntary departure of teachers from the profession, and was established as a subset of turnover. Previous research on the impact of attrition and on factors such as age and tenure that impact attrition were also discussed.

Ethics and Education

Beliefs and values, the foundation of ethics, are discussed. Ethics and ethical orientation are defined as are the two ethical philosophies used in the study: idealism and relativism. The development and critique of Forsyth's Ethical Position Questionnaire (EPQ) is presented. The present study used the EPQ to measure respondents' levels of idealism and relativism, but did not extend the use of the EPQ to the determination of respondents' actual ethical orientations. After a discussion concerning the relationship of ethics and education previous research on ethical orientation and attrition is summarized and the discovery of a gap in the literature is discussed.

Beliefs and Values

An individual's ethics reflect both values and beliefs (Scheibe, 1970), with those beliefs and values being observed not only through a person's statements but also through a person's actions (Rokeach, 1968). Both Rokeach (1968) and Scheibe (1980) distinguished between beliefs and values. Rokeach made the following distinction between the terms:

To say that a person "has a value" is to say that he has an enduring belief that a specific mode of conduct or end-state existence is personally and socially preferable to alternative modes of conduct or end-states of existence. (1968, pp. 159-160)

In 1987, Schwartz and Bilsky began a long-term study of human values. Their definition of values was closely related to Rokeach's (1968) definition and included five parts: (a) concepts or beliefs, (b) about desirable end states of behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance (Schwartz & Bilsky, 1987, p. 551). Based on this definition, Schwartz and coworkers were not only able to establish the existence of 10 core human value types but also to develop the Portrait Values Questionnaire for the measurement of the value types (Schwartz, 1992; Schwartz, 1994; Schwartz & Bilsky, 1990; Schwartz, Melech, Lehmann, Burgess, & Harris, 2001; Schwartz & Sagiv, 1995). In general, researchers agreed that values are created from beliefs, and that these underlying beliefs are longitudinally consistent.

Ethical Orientation

Ethical orientation has been referred to in related research as ethical predisposition, ethical ideology, and personal moral philosophies (Henle et al., 2005; Reynolds, 2006). Each term is described. Ethical ideology was defined by Henle et al. (2005), as referring "to a system of ethics used to make moral judgments" (p. 219). Putranta and Kingshott (2011) simply defined ethical ideology as "personal ethics" (p. 44). Reynolds (2006) defined ethical predispositions as "patterns used to process information" (p. 235). Clikeman et al. (2001) chose to study ethical orientation "because we want to see where the respondents stand *before* they may have to make real ethical judgments" (p. 633). The common aspect of all these definitions was a pre-existing preference by the individual for a particular ethical philosophy. In the present study, ethical orientation was defined according to Henle et al. (2005).

Personal ethical orientation was a subject of study in several different contexts including accounting (Clikeman et al., 2001; Shaub et al., 1993; Ussahawanitchakit, 2012), animal research (Nickell & Herzog, 1996; Wuensch & Poteat, 1998), business (Allmon, Page, & Roberts, 2000; Barnett, Bass, & Brown, 1996; Bierly, Kolodinsky, & Charette, 2009; Fernando, Dharmage, & Almeida, 2007; Henle et al., 2005), education (Beach & Eriksson, 2010; Butler, S. L., 2009; Eyal et al., 2011; Landry et al., 2004; Putranta & Kingshott, 2011; Deering, 1998), ethical decision making (O'Fallon & Butterfield, 2005), marketing (Donoho et al., 2012; Singhapakdi et al., 1995; Vitell & Singhapakdi, 1993; Karande et al., 2002; Tsai & Shih, 2005), and psychology (Forsyth, 1980; Forsyth & Berger,

1982; Forsyth & Pope, 1984; McHoskey, 1996; Pearsall & Ellis, 2011; Yurtsever, 2000).

Within these areas of study, a wide range of topics and participants were studied: the ethical ideology of managers (Fernando et al., 2007; Karande et al., 2002), preservice teachers (Deering, 1998); the relationship of ethical ideology and workplace deviance (Henle et al., 2005) and unethical team behavior (Pearsall & Ellis, 2011); the effect of ethical ideology on accountants' commitment (Clikeman et al., 2001; Shaub et al., 1993), and the relationship of ethical orientation to behaviors such as competitiveness, plagiarism, copyright violation or violations of privacy (Jung, 2009; Mudrack, Bloodgood, & Turnley, 2012; Yoon, 2011).

For more than thirty years, ethical orientation has been a topic of research in multiple disciplines. Ethical orientation has defined by several different researchers (Henle et al., 2005; Putranta & Kingshott, 2011; Reynolds, 2006) but the idea of a personal preference for a particular ethical philosophy was a common theme in all definitions.

Ethical Philosophies used in Present Study

Moral philosophies have been discussed and debated since ancient times. Well-known philosophers such as Socrates and Plato discussed morality over 2,000 years ago in ancient Greece. In *The Moral Philosophers*, Richard Norman (1998) wrote "the area of philosophy traditionally known as 'ethics' or 'moral philosophy' is the attempt to arrive at an understanding of the nature of human values, of how we ought to live, and of what constitutes right conduct" (p. 1). David Copp (2006) espoused a similar view in *The Oxford Handbook of Ethical Theory*, writing "we can take a person's moral beliefs to be the beliefs she has about how to live her life when she takes into account in a sympathetic way the

impact of her life and decisions on others" (p. 4). Ruggiero offered one of the simplest definitions of ethics, writing "ethics is the study of choices people make regarding right and wrong" (2012, p. 2). Norman and Copp explicitly equated ethics with morality or moral philosophy. The present study also considered the terms ethics, morality, and moral philosophy as equivalent and thus were used interchangeably. In addition, the study used two ethical philosophies as independent variables: idealism and relativism.

Idealism.

Idealism is an ethical philosophy that assumes the presence of absolute rules of right and wrong; if the rules are followed, the correct action will be taken (Forsyth, 1980; Tansey, Brown, Hyman, & Dawson, 1994). This definition of idealism is consistent with the philosophy of deontology. Deontology also recognizes the presence of absolute moral rules; moreover, under the philosophy of deontology, one is obligated (has a duty) to follow the rules without regard for the consequences (Copp, 2006; Norman, 1998). The concept of duty as central to ethics was established by Immanuel Kant in the late 1700s (Norman, 1998).

Relativism.

Relativism is an ethical philosophy that asserts ethical beliefs are a function of culture and so no absolute or universal moral rules exist (Forsyth, 1980; Reidenbach & Robin, 1990; Tansey et al., 1994). Relativism does recognize the presence of rules; however the rules are not universal in nature. Relativism is not the same thing as nihilism, which does not recognize the existence of moral facts (Copp, 2006). Since universal moral rules do not

exist, relativists consider both local moral rules and situational context to determine if one's actions are ethical or unethical. Ethical (or more correctly moral) relativism recognizes cultural differences in determinations of right and wrong, and directs actions according to local context such as language and culture (Velasquez & Rostankowski, 1985).

Measurement of Idealism and Relativism

Over the past few decades, several measures were developed to identify an individual's ethical philosophy and ethical judgment. The measurements included the Defining Issues Test (DIT, Rest, 1979), the Ethical Position Questionnaire (EPQ, Forsyth, 1980), the Multidimensional Ethics Scale (MES, Reidenbach & Robin, 1988, 1990), and the Managerial Ethical Profile (MEP, Casali, 2011). The DIT and MES are scenario-based where respondents indicate the preferred choice of action in specific, fictional situations. A respondent's ethical philosophy is then deduced from their choice of possible actions. The EPQ and the MEP do not use scenarios to measure ethical orientation. Instead, the EPQ and MEP use Likert scales to measure the relative strength of respondent beliefs on a range of items. Forsyth described the application of the EPQ scale as follows:

Respondents are asked to indicate their degree of agreement or disagreement with each item, and the mean score of their responses to the idealism items and the mean score of their responses to the relativism items are taken to be their two EPQ scores. (Forsyth, 1980, p. 179)

The DIT, MIT, EPQ and MEP were each developed to enhance research in the discipline of ethics and ethical judgments. Information obtained with these instruments can be used to sort respondents by ethical philosophy. Because the EPQ measures levels of idealism and relativism, the EPQ also offers the opportunity to describe respondent beliefs without categorization into specific philosophies. In later work, Forsyth (1992, 1993) emphasized the descriptive nature of information obtained from the EPQ, writing:

... although the current approach uses moral theory as a means of describing differences in moral thought, it does not argue that any one philosophy is more morally advanced than another. To do so would be to commit the naturalistic fallacy of moving from 'This is how individuals make judgments' to 'This is how individuals should make judgments.' (1993, p.309)

Forsyth's emphasis on the descriptive nature of the EPQ was supported by Tansey et al. (1994) who agreed that the EPQ taxonomy was "philosophically unbiased; his taxonomy does not assume that one moral philosophy is superior to any other" (p. 65).

To determine individuals' personal ethical ideology, Forsyth developed the Ethics Position Questionnaire (EPQ). An early version of the EPQ was utilized by Schlenker and Forsyth (1977) in a study that "examined how consequences of a research procedure affect moral evaluations of it" (p. 377). Principal factor analysis of the data (varimax rotation) indicated two primary factors, then labeled idealism-pragmatism and rule-universality. Forsyth described the results of the study as suggesting "individual variations in approaches to moral judgment may be described most parsimoniously by taking into account two basic

factors [idealism and relativism]" (Forsyth, 1980, p. 175). According to Forsyth, an individual's level of idealism was related to his level of belief "that desirable consequences can, with the 'right' action, always be obtained" (p. 176) while a individual's level of relativism was related to his degree of rejection of "the possibility of formulating or relying on universal moral rules" (p. 175).

A simplified version of Forsyth's taxonomy is presented in Table 2.2. *Using Levels of Idealism and Relativism to Determine Ethical Orientation*. Individuals with a high level of idealism and low level of relativism were categorized as absolutists, individuals which assume "that the best possible outcome can always be achieved by following universal moral rules" (Forsyth, 1980, p. 176). Individuals with high levels of idealism and relativism were identified as situationists, individuals that "distrusts absolute moral principles and argues instead that each situation must be examined individually" (Forsyth, 1980, p. 176). Individuals with low levels of idealism and relativism were categorized as exceptionists, individuals who believed "moral absolutes guide judgments" but remained "pragmatically open to exceptions to these standards" (Forsyth, 1980, p. 176). Individuals with a low level of idealism and high level of relativism were identified as subjectivists, individuals who make "appraisals based on personal values and perspective rather than universal moral principles" (Forsyth, 1980, p. 176).

Table 2.2

Using Levels of Idealism and Relativism to Determine Ethical Orientation

		Relativism	
		High	Low
Idealism	High	Situationist	Absolutist
	Low	Subjectivist	Exceptionist

Note. Adapted from Forsyth, 1980, p. 176

Although the EPQ was developed to enhance research in making ethical judgments, Forsyth noted during preparation of a meta-analysis of EPQ research (Forsyth, O'Boyle, & McDaniel, 2008) that very few researchers actually examined the interaction of relativism and idealism in making judgments about ethical dilemmas (Forsyth, n.d.). Instead, the majority of researchers focused on the descriptive properties of the EPQ. Scholars across multiple fields and around the world have chosen the EPQ as their instrument of choice to study ethical orientation (Barnett et al., 1996; Clikeman et al., 2001; Deering, 1998; Donoho et al., 2012; Fernando et al., 2007; Forsyth et al., 2008; Hadjistavropoulos, Malloy, Sharp, & Fuchs-Lacelle, 2003; Henle et al., 2005; Karande et al., 2002; MacNab et al., 2011; Putranta & Kingshott, 2011; Shaub et al., 1993; Singhapakdi et al., 1995; Singhapakdi et al., 1999; Vitell & Singhapakdi, 1993). Forsyth's model "has demonstrated both parsimony and descriptive ability" (Shaub et al., 1993, p. 149-150).

Critical reviews of the EPQ supported its use as an instrument for measuring ethical orientation. Research studies using the EPQ have consistently reported alpha values above 0.80 for idealism and above 0.75 for relativism (Shaub et al., 1993; Barnett et al., 1996; Clikeman et al., 2001; Henle et al., 2005; Putranta & Kingshott, 2011; Donoho et al., 2012). Tansey et al. (2004) used maximum likelihood analysis and principal factor analysis with *a priori* selection of two factors to check the dimensionality of Forsyth's taxonomy and evaluate factor loadings. The EPQ was subjected to confirmatory factor analysis by two research studies (Davis, Anderson, & Curtis, 2001; MacKewn & VanVuren, 2007). Results from critical reviews of the EPQ were positive. Based on its widespread use and the critical reviews, the EPQ was determined to be the appropriate instrument of choice for the present study. The present study uses Forsyth's idea of descriptive ethics; respondents' levels of idealism and relativism were described but the respondents were not sorted into the four categories of Forsyth's taxonomy as referenced in Table 2.2.

Ethics of Teaching

The idea that ethics is an integral part of education has been stated repeatedly by researchers (Alexander, 2005; Beyer, 1997; Bullough, 2011; Campbell, 1997; Campbell, 2013; Hamberger & Moore, 1997; Sanger, 2008; Sileo, Sileo, & Pierce, 2008; Weissbourd, 2003). Campbell (1997) made the argument that since teachers were models for their students, teachers must look to their own morals and ethics. Weissbourd (2003) wrote

Educators influence students' moral development not simply by being good role models ... but also by what they bring to their relationships with students day to day:

their ability to appreciate students' perspectives and to disentangle them from their own; their ability to admit and learn from moral error, their moral energy and idealism, their generosity, and their ability to help students develop moral thinking without shying away from their own moral authority. That level of influence makes being an adult in a school a profound moral challenge. (pp. 6, 7)

In 2005, Alexander stated "education is necessarily an *ethical* activity" (p. 10, author emphasis). Sanger noted "there is a consensus among educational scholars that teaching is by its very nature a moral endeavor, which suggests that all classroom teachers are, in some sense, engaged in moral work" (2008, p. 169). More recently, Bullough (2011) reviewed 22 articles published in *Teaching and Teacher Education* whose main focus was the ethical and moral issues of teaching. At the start of the review, Bullough posed the question "in what sense is teaching an ethical and moral enterprise?" (p. 21). At the end of the review, Bullough summarized the authors' argument that to teach "is to be embedded in a world of uncertainty and of hard choices, where what a teacher does and how he or she thinks is morally laden" (p. 27). Recent texts on the subject of ethics and education included *The Moral Dimensions of Teaching* edited by Goodlad et al. (1990), *The Ethical Teacher* by Campbell (2003), *The Ethics of Teaching* (5th ed.) by Strike and Soltis (2009), *The Good Life of Teaching: An Ethics of Professional Practice* by Chris Higgins (2011), and *Knowledge and Virtue in Teaching and Learning: The Primacy of Dispositions* by Hugh Sockett (2012).

Educators have long been expected to behave in an ethical, professional manner. In 1975, the Representative Assembly of the National Educators Association (NEA, 1975) adopted a Code of Ethics which delineated two principles, "Commitment to the Student" and

"Commitment to the Profession" (para. 1, 2). In addition to the NEA Code of Ethics, local and state authorities have established Codes of Ethics for their teachers (North Carolina, 2000; Union County, n.d.). Educators face potential ethical dilemmas in many areas of their job: grading, relationships with students, relationships with fellow teachers, relationships with administration, testing, intellectual freedom, diversity, and more (Strike & Soltis, 2009).

An area of professional ethics that has received special attention in the last two decades concerns ethics in regard to standardized testing. Since 2002, the implementation of education reform commonly referred to as No Child Left Behind has resulted in ever-increasing standardized testing and inter-school comparisons based, at least in part, on school test scores ("Four Pillars of NCLB," n.d.; Guilfoyle, 2006). There were multiple reports of unethical behavior by teachers and administrators during standardized testing (Gabriel, 2010; Marcus, 2007; Nichols & Berliner, 2005). Standardized testing places teachers in the middle of an ethical dilemma; they are caught between serving students, serving their school at large, and serving their community.

Campbell (2003) stated "the ethical professional is also an ethical person" (p. 11) and "moral and ethical standards are inherently public; they define what we do to, for, and with one another"(p. 16). Campbell emphasized the importance of recognizing the presence of established guidelines of right and wrong:

We may have differing interpretations of what it means to be fair ... Uncertainty and complexity are inevitable aspects of adjudicating between right and wrong in one's personal and professional life. However, this complexity does not invalidate the

concept of ethical right and wrong ... And in teaching, as in medicine and other fields, that which is inherently wrong is that which harms, deceives, manipulates, deprives, neglects, cheats, intimidates, and uses others for one's own ends."

(Campbell, 2003, p. 16)

More than one ethical orientation recognizes the existence of established guidelines of right and wrong. Strike and Soltis (2009) suggested educators consider hypothetical ethical conflicts from both a consequentialist and nonconsequentialist perspective to determine appropriate actions. Strike and Soltis chose to emphasize the use of consequentialist and nonconsequentialist perspectives because "these views have an honored pedigree in philosophy and because they are very much with us still" (2009, p. 19). Educators who approached ethical issues from a consequentialist perspective placed an emphasis on the collective good generated by a chosen action while concurrently acknowledging the existence of established guidelines of right and wrong. Educators who approached ethical issues from a nonconsequentialist perspective placed an emphasis on established guidelines of right and wrong to determine appropriate actions. The nonconsequentialist educator would be considered to have high levels of idealism compared to relativism; the consequentialist educator would have more balanced levels of idealism and relativism. Under Forsyth's typology, nonconsequentialists would most likely be classified as absolutists while consequentialist educators would be more closely associated with the exceptionist category (Table 2.2). In both cases, educators would be expected to demonstrate low levels of relativism.

Ethical Orientation and Attrition

Much of the turnover and attrition research focused on personal characteristics and external factors in an attempt to understand and explain why teachers leave the profession (Chapman & Hutcheson, 1982; Kearney, 2011; Macdonald, 1999; Mobley, 2011; Williams, 2004). Internal, personality characteristics were an underexplored focal point of empirical research. In a review of the literature in private organizations, Porter and Steers noted:

From the limited evidence available, a tendency appears to emerge for those employees who leave the organization to manifest characteristics near polar positions at either ends of various personality trait continua ... employees demonstrating a very high degree of independence, self-confidence, and aggressiveness, as well as those with very high career aspirations, also appear to leave more often. (1973, p. 166)

Although this review is more than 40 years old, the concept of personalities' impact on workers' attrition is still pertinent and valid for teachers. More recently, Catlin and Maupin (2004) examined the ethical orientations of two state police cohorts. In Cohort 1, officers were surveyed at the academy and then again after one year in service. The number of officers who were categorized as absolutists dropped from 26.0 percent to 9.9 percent. The authors theorized selective attrition of recruits with absolutist ethical orientations was one possible explanation of the data. Drew et al. (2008) noted in the introduction to their study that "empirical interest in the relationship between personality and turnover has been limited" (p. 326). Drew et al. used the five-factor model of personality (emotional stability, conscientiousness, extraversion, openness to experience, agreeableness) in their study.

Police officers who rated highly in terms of being affected by their emotions, of being extraverted, and of being tender instead of tough were more likely to resign. None of the other personality factors were predictive of turnover, and officer gender did not impact the results. Repeated searches of the literature uncovered no studies which examined the relationship between ethical orientation and attrition or between idealism / relativism and attrition, indicating the presence of a gap in the research literature.

Occupational Commitment

The present study used occupational commitment as the dependent variable. The definition and measure of occupational commitment are discussed in this section of the literature review. Occupational commitment research relevant to the study is also presented: occupational commitment of teachers, occupational commitment and attrition, and occupational commitment and ethical orientation.

Definition of Occupational Commitment

The general concept of commitment originated in sociology and later in social psychology. The various commitments that workers develop have been researched for over a century (Cohen, 2003). Commitment and turnover are common variables in organizational behavior research (Meyer, Becker, & Vandenberghe, 2004), yet the concept has no agreed upon or common definition. In 1983, Morrow performed a review of work commitment concepts within an organizational context. After finding more than 25 concepts and measurements, Morrow concluded researchers were in need of "a moratorium on new commitment concepts until some evaluation of existing perspectives has been completed"

(p. 487). Almost two decades later, Meyer and Herscovitch (2001) again noted the wide range of commitment concepts and measurements. Meyer and Herscovitch extracted the essential underpinnings of the commitment concept through an examination of the many definitions, distilling the "core essence" (p. 300) of commitment as "a force that binds an individual to a course of action of relevance to one or more targets" (p. 301).

Cohen (2003) discussed several types of commitment involving workers: occupational commitment, organizational commitment, job involvement, Protestant work ethic, group commitment and union commitment. Each term is defined or described. Research on the commitment between workers and their union first started in the early 1950s as the number of unions and unionized workers began to rise (Cohen, 2003). Group commitment research first began in the early 1990s (Cohen, 2003); Randall and Cote (1991) defined work group attachment as "an individual's identification and sense of cohesiveness with other members of the organization" (p. 195). Research on the Protestant work ethic was first published in 1905; research on this topic started with the assumption that "hard work is intrinsically good and is an end in and of itself" (Cohen, 2003, p. 33). Job involvement was defined by Lodahl and Kejner (1965) as "the internalization of values about the goodness of work or the importance of work in the worth of a person" (p. 24). Organizational commitment, or the connection between a worker and his specific workplace, has been the most extensively researched form of work commitment (Cohen, 2003). Gouldner's research on the latent social roles of workers suggested organizational commitment can be considered synonymous to loyalty (1957, p. 288).

Occupational commitment, or the connection between an individual and an occupation / career / profession, operates from a broader perspective than organizational commitment which focuses on a particular workplace setting. The concept of occupational commitment first appeared in the literature as career salience (Greenhaus, 1971); another term used for the construct was career commitment (Hall, 1971). In response to the concerns raised by Morrow in 1983 about the proliferation of multiple constructs of work commitment, Blau (1985) refined the definition of career commitment "as one's attitude toward one's profession or vocation" (p. 278). Blau used the terms profession and vocation to establish the sense of a career as consisting of more than just a series of jobs. Although they did not reference Blau's work, Colarelli and Bishop (1990) also noted the importance of carefully defining career commitment. Colarelli and Bishop defined career commitment as "the development of personal career goals, the attachment to, identification with, and involvement in those goals" (p. 159). All three researchers stated professional commitment, occupational commitment, and career commitment were three separate constructs.

By the turn of the century, researchers were re-examining the concepts involved in work commitment (Blau, 2001; Hackett, Lapierre, & Hausdorf, 2001; Lee et al., 2000; Morrow, 1993). From that reassessment, a general consensus emerged that occupational, professional, and career commitments were equivalent concepts and measurements. Lee et al., provided the clearest explanation of the change and presented a new, inclusive definition of occupational commitment:

The terms *occupation*, *profession*, and *career* have been used somewhat interchangeably in the commitment literature. Although this may well be a matter of

taste, our view is that *occupation* best fits the notion under consideration in this review. We prefer *occupation* over *profession* simply because it is more general, encompassing both professionals and nonprofessionals... The main reason for choosing *occupation* over *career* is to avoid potential confusion. Some authors use *career* as we use *occupation* ... Several others, however, define *career* as the series of jobs, vocational choices, and other work-related activities over the individual's life... (Lee et al., 2000, p. 800)

In the present study occupational commitment was defined "as a psychological link between a person and his or her occupation" (Lee et al., 2000, p. 800). Earlier work by Meyer and others (Meyer & Allen, 1991; Meyer et al., 1993) identified three components of commitment which were extended to the concept of occupational commitment (OC): (a) affective OC, a desire to remain in the occupation; (b) continuance OC, a need to remain in the occupation; and (c) normative OC, an obligation to remain in the occupation.

Measurement of Occupational Commitment

Occupational commitment was measured with a number of scales (Cohen, 2003). Three of the most recognized measurements are those developed by Blau, Paul, and St. John (1993), Carson and Bedeian (1994), and Meyer et al. (1993). All three instruments use Likert scales to rate respondent levels of dis/agreement with scale items. Each scale is discussed.

Blau et al. (1993) developed an 11 item scale for the measurement of occupational commitment. Thirty-one items from four separate instruments were reduced through the use of exploratory factor analysis. In the second part of the study, the new 11 item scale was included as part of a four scale instrument subjected to confirmatory factor analysis. The coefficient alpha of the occupational commitment scale was 0.91, indicating reasonable internal reliability (Hair, Black, Babin, Anderson, & Tatham, 2006). The authors noted in the discussion that despite loading on one factor, the 11 items in the scale actually consisted of items representing three different components of attitude (affect, belief, and behavioral intention). Carson and Bedeian (1994) considered the Blau et al. (1993) scale to be imperfect because the scale was created by combining items from multiple, pre-existing scales. Carson and Bedeian expressed concern that the scale did not demonstrate high content validity and possibly inflated internal reliability (1994, p. 239 - 240). In response, the authors developed a new scale they named the Career Commitment Measure (CCM).

The CCM (Carson & Bedeian, 1994) consisted of 12 statements of affective response to a career. For example, the first item read, "My line of work/career field is an important part of who I am" (Table 2, p. 251). The development of the CCM paralleled most of the procedural steps suggested by Gable and Wolf (1993). Content validity was assessed by an external panel of judges, and internal reliability was considered throughout two pilot studies and a field study. The pilot studies were conducted with sample populations that included respondents in a variety of careers / occupations, suggesting the instrument would be appropriate for a wide variety of study populations. Construct validity was examined through a correlation study and the analysis of five hypotheses. Criterion validity was

assessed through convergent and discriminant testing. The final scale assessed three components of career commitment: (a) career identity, (b) career resilience, and (c) career planning.

The third scale examined for use in the study was the Occupational Commitment Scale (OCS) developed by Meyer et al. (1993). The OCS was developed from a three-component scale used to measure organizational commitment (Allen & Meyer, 1990). The new OCS scale consisted of 18 items, split equally among affective, continuance, and normative commitment. Composite commitment scores were calculated by averaging responses across all 3 scales. The occupational commitment scales were assessed for internal reliability and validity through Cronbach's alpha measurements, factor analysis, and correlation analysis. In addition, the new occupational commitment instrument was incorporated with the original organizational commitment instrument. Factor analysis of the combined instrument indicated a six factor model provided the best fit. Additional support for the construct validity of the OCS was provided by Irving, Coleman, and Cooper (1997) and by Snape and Redman (2003). Both groups of researchers used confirmatory factor analysis of the OCS as part of their research methodology. The OCS has also been used with multiple types of occupations. Meyer et al. (1993) developed the OCS using Canadian registered nurses and nursing students; Irving et al. (1997) sampled Canadian government workers, extending the OCS to multiple occupations; Snape and Redman sampled human resource management specialists in the United Kingdom, thereby helping to establish the use of the OCS within a global context.

The Occupational Commitment Scale (Meyer et al., 1993) was selected for use in the present study because of its correlation to the chosen definition of occupational commitment, its consistent performance as demonstrated by repeated confirmatory factor analysis, and because the scale was used with multiple occupations.

Occupational Commitment of Teachers

Early work in teacher commitment was driven by concerns with teacher retention and attrition (Billingsley & Cross, 1992). Educational reform further encouraged interest in teacher commitment (Somech & Bogler, 2002). Occupational commitment of teachers was measured and compared to multiple variables, including burnout (Brown & Roloff, 2011), efficacy (Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, 2012; Ware & Kitsantas, 2011), job satisfaction (Billingsley & Cross, 1992; Canrinus et al., 2012), participation in decision making and organizational citizenship behavior (Somech & Bogler, 2002), school climate and social-emotional learning (Collie, Shapka, & Perry, 2011), and stress (Billingsley & Cross, 1992; Jepson & Forrest, 2006). Additionally, Huang and Waxman (2009) has examined the relationship between school environment and the commitment to teaching of student teachers. Correlation coefficients between a selection of studied variables and occupational commitment are presented in Table 2.3.

Table 2.3

Published Correlation Coefficients between Occupational Commitment of Teachers and Other Variables

Variable	Study	<i>r</i>	<i>p</i>
Burnout	Brown & Roloff, 2011	-0.63	< 0.001
Classroom Self-Efficacy	Canrinus et al., 2012	0.26	< 0.01
Job Satisfaction - Relationships	Canrinus et al., 2012	0.57	< 0.01
Job Satisfaction - Salary	Canrinus et al., 2012	0.22	< 0.01
PDM on technical issues	Somech & Bogler, 2006	0.16	< 0.0001
PDM on managerial issues	Somech & Bogler, 2006	0.33	< 0.0001
OCB toward student	Somech & Bogler, 2006	0.28	< 0.0001
OCB toward organization	Somech & Bogler, 2006	0.19	< 0.0001
Stress	Jepson & Forrest, 2006	-0.440	< 0.01

Note. PDM = participation in decision making, OCB = organizational citizenship behavior

Occupational Commitment and Attrition

According to Weng and McElroy (2012), "research has repeatedly shown turnover intentions to be the best predictor of actual turnover" (p. 259). Turnover intention, or intent to leave, has been negatively associated with occupational commitment by multiple researchers using different sample populations (Bedian, Kemery, & Pizzolatto, 1991; Ciftcioglu, 2011; Klassen & Chiu, 2011; Lee et al., 2000; Noguerras, 2006). Intent to leave

was operationalized as attrition completing the connection between previous research and the present study, where attrition was chosen as the outcome variable and occupational commitment was the dependent variable. Previous research had established the negative link between student achievement and teacher attrition.

In early work, Bedian et al. (1991) determined the correlation ($r = -0.16, p < 0.05$) between career (occupational) commitment and turnover intention of hospital nurses. Lee et al. (2000) performed a meta-analysis using 76 samples from 77 studies. The weighted mean correlation between occupational commitment and occupational turnover intention was strongly negative ($r = -0.621, 95\% \text{ CI} = [-0.578, -0.463]$). Noguera (2006) surveyed registered nurses. There was a negative correlation between intent to leave and all three components of occupational commitment: (a) affective, $r = -0.31, p < 0.01$; (b) normative, $r = -0.18, p < 0.01$; and (c) continuance, $r = -0.14, p < 0.01$. Hierarchical linear regression analysis indicated occupational commitment was the most significant contributor to nurses' intent to quit ($\beta = -0.25, t = -7.69, p < 0.01$). Based on hierarchical linear regression analysis, Ciftcioglu (2011) determined there was a negative relationship between the occupational commitment and turnover intention of Turkish accountants ($\beta = -0.326, p < 0.001$). Klassen and Chiu (2011) examined the relationship between occupational commitment and intent to quit (turnover intention) of preservice and practicing Canadian teachers. Structural equation modeling determined

Teachers who taught kindergarten students were 7% less likely to intend to quit than those who taught students in higher grades teachers with 10% greater occupational

commitment were 7% less likely to intend to quit These variables accounted for 59% of the variance in teachers' intention to quit." (p. 121)

Longitudinal analysis of multiple occupations has consistently indicated a negative relationship between occupational commitment and turnover intention. Since turnover intention predicts turnover (Weng & McElroy, 2012), it was reasonable to expect a negative relationship between occupational commitment and turnover (attrition).

Occupational Commitment and Ethical Orientation

A search of the literature revealed a paucity of research on occupational commitment and ethical orientation, or on occupational commitment and idealism or relativism. Two studies were found that examined the relationship between the concepts (Elias, 2006; Shaub et al., 1993). In addition, two studies were found that used occupational commitment and ethical orientation but did not study the relationship between the concepts (Greenfield, Norman, & Weis, 2008; Kangarluei & Bayazidi, 2010).

Greenfield et al. (2007) used the Ethical Position Questionnaire (EPQ, Forsyth, 1980) in their study. The authors examined four relationships: (a) between ethical orientation and earnings management behavior, (b) between ethical orientation and personal benefit, (c) between professional (occupational) commitment and earnings management behavior, and (d) professional (occupational) commitment and personal benefit. The research model used in the Greenfield et al. (2007) study did not permit an examination of the relationship between ethical orientation and professional (occupational) commitment. In a 2010 study from Iran, Kangarluei and Bayazidi used the EPQ (Forsyth, 1980) to determine ethical orientation in a study of the relationship between ethics and agency costs. The authors

examined the relationship between professional (occupational) commitment and agency costs but did not examine the relationship between ethical orientation and professional (occupational) commitment.

As part of a larger study of auditors' professional commitment and ethical sensitivity, Shaub et al. (1993) investigated the effect of ethical orientation on auditors' professional (occupational) commitment. Ethical orientation of the auditors was evaluated with the use of the Ethical Position Questionnaire (Forsyth, 1980). Path analysis indicated a positive effect of idealism on professional commitment and a negative effect of relativism on professional commitment (see Table 2.4 for Shaub et al. path analyses). More recently, Elias (2006) studied the impact of professional (occupational) commitment on the ethical orientation of accounting students. The students' ethical perception and ethical intention were evaluated through the use of audit vignettes. Professional commitment was found to be an "important determinant" of ethical orientation. The lack of research on the interaction between occupational commitment and ethical orientation indicated the presence of a second 'gap' in the literature; an earlier gap was noted on the interaction between ethical orientation and attrition.

Table 2.4

Path Coefficients from Shaub et al., 2001

Hypothesis	Direct Effect	Residual	Total Correlation
Idealism is positively associated with professional commitment.	0.190	0.040	0.230
Relativism is negatively associated with professional commitment.	-0.210	-0.036	.0.246

Note. $p < 0.01$

Theoretical Framework

The study examined the relationships between secondary teachers' academic department, level of idealism, level of relativism, and level of occupational commitment to the profession of teaching. The structure of the study's theoretical framework was established through the synthesis of three theories/concepts: (a) ethical position theory (Forsyth, 1980), (b) person-vocation fit, and (c) value consonance (Rosenberg, 1977).

Ethical Position Theory

Ethical position theory (Forsyth, 1980) grew out of research by Forsyth and Schlenker (1977) on the ethics of psychological research. Ethical position theory proposed "people's reactions in morally toned situations can be traced to variations in their intuitive, personal moral philosophies" (Forsyth & Boyle, 2013, p. 221). Forsyth (1980) used the ethical philosophies of idealism and relativism to classify individuals' ethical orientations

into a four-part taxonomy. To measure idealism and relativism, Forsyth (1980) developed and tested the Ethical Position Questionnaire. A meta-analysis by Forsyth et al. (2008) revealed the theory has been used in multiple disciplines over the past three decades. The meta-analysis also revealed the theory has been used not only to classify individuals' ethical orientation but also as a means of simply describing the individuals' levels of idealism and relativism.

Person-Vocation Fit

One of the earliest mentions of "fit" between an individual and the environment was made by Jahoda in 1961. Although Jahoda was using "fit" to describe the relationship between individuals and culture, the idea was soon utilized in other disciplines. For example, Pervin (1968) reviewed research in a number of areas where the idea of fit was incorporated: learning environment, academic performance, occupational choice, and occupational satisfaction. Less than a decade later, O'Reilly (1977) considered the implications of personality-job fit on attitude and performance. While acknowledging the lack of success by previous researchers in linking individual differences to attitude and work behavior, O'Reilly noted:

... the fundamental notion that behavior is a function of both personality and environment is a compelling one. There are intrinsic difference in personality among individuals and these difference may interact with environmental stimuli to produce differential responses. (O'Reilly, 1977, p. 36)

From this point in time, the concept of fit continued to expand. The theory of person-vocation fit grew out of the concept of person-environment and person-organization fit (Kristof, 1996; Kristof-Brown, Zimmerman, & Johnson, 2005; Valentine, Godkin, & Lucero, 2002; Vogel & Feldman, 2009) which in turn developed out of early theories such as Holland's theory of vocational personalities (1985), the theory of work adjustment (Betz, Weiss, Dawis, England, & Lofquist, 1968; Dawis & Lofquist, 1976; Dawis & Lofquist, 1984), and Schneider's theory of attraction/selection/attrition (1987). In simplest terms, the theory of person-vocation fit suggests people look for vocations that match their personal characteristics in terms of skills, abilities, attitudes, and values. If a person chooses a vocation or organization that is not a good match (good fit), the person is more likely to leave. Holland described fit in terms of matching personality type and work environment (1959, 1985) while Davis and associates described fit in terms of correspondence between worker and work environment (1976, 1984).

Schneider's (1987) theory of attraction/selection/attrition (ASA) described the process through which organizational homogeneity would be created and maintained. A central tenet of ASA stated "organizations over time become relatively homogeneous with regard to the kinds of people in them" (Schneider, Goldstein, & Smith, 1995, p. 747). Schneider's theory, although focused on organizations, can be reasonably extended to occupations. In a similar vein, Meyer et al. (1993) was able to extend their concept of organizational commitment to occupational commitment.

Value Consonance

Baumeister and Leary (1995) noted that "the need to belong is a fundamental motivation" (p. 497). Value consonance was differentiated from value congruence by Lupini (1965, as cited in Hodgkinson, 1970). Hodgkinson paraphrased Lupini's explanation of the term congruence as the "similarity or homogeneity of values within a group" (1970, p. 47). Rosenberg (1977) explained the concept of value consonance as "a place where certain things are said or remain unsaid, where characteristic points of view prevail, where tacit assumptions underlie explicit messages, where shared norms, ideas, values hold sway" (p. 206).

Synthesis of Theories for Present Study

The three theories/concepts were synthesized to create the study's theoretical framework. Ethical position theory provided the means for describing the ethical orientation of secondary teachers in terms of idealism and relativism. Support for the use of the theory was provided through previous education research that demonstrated preservice teachers were more idealistic and less relativistic than business majors (Deering et al., 1994) and that American preservice teachers were dissimilar to British preservice teachers (Deering, 1998).

The outcome variable of the study was attrition. The theory of person-vocation fit was appropriate because the core purpose of the study was to examine the relationship between teachers' individual characteristics and their occupation (vocation). The theory of value consonance (Rosenberg, 1977) provided both a mechanism for defining "fit" and for

explaining the consequences of a lack of fit. A lack of fit would encourage attrition; improved fit would decrease attrition.

Recent work by Skaalvik and Skaalvik (2011a, 2011b) supported the use of value consonance in the study. In the first study, Skaalvik and Skaalvik (2011b) surveyed 231 Norwegian elementary and middle school teachers to examine the relationship between teachers' feeling of belonging, value consonance, and motivation to leave the teaching profession. Both variables were negatively associated with motivation to leave: (a) feeling of belonging, $r = -0.13$, $p < 0.01$; (b) value consonance, $r = -0.23$, $p < 0.001$. The second study (Skaalvik & Skaalvik, 2011a) sampled 2,569 Norwegian elementary and middle school teachers. The variables of value consonance ($r = -0.20$) and belonging ($r = -0.32$) were once again negatively associated with motivation to leave the teaching profession. A visual representation of the study's theoretical framework is presented in Figure 2.1. Study variables were placed in ovals; study theories were placed in round-cornered rectangles; the sample was placed in a traditional rectangle.

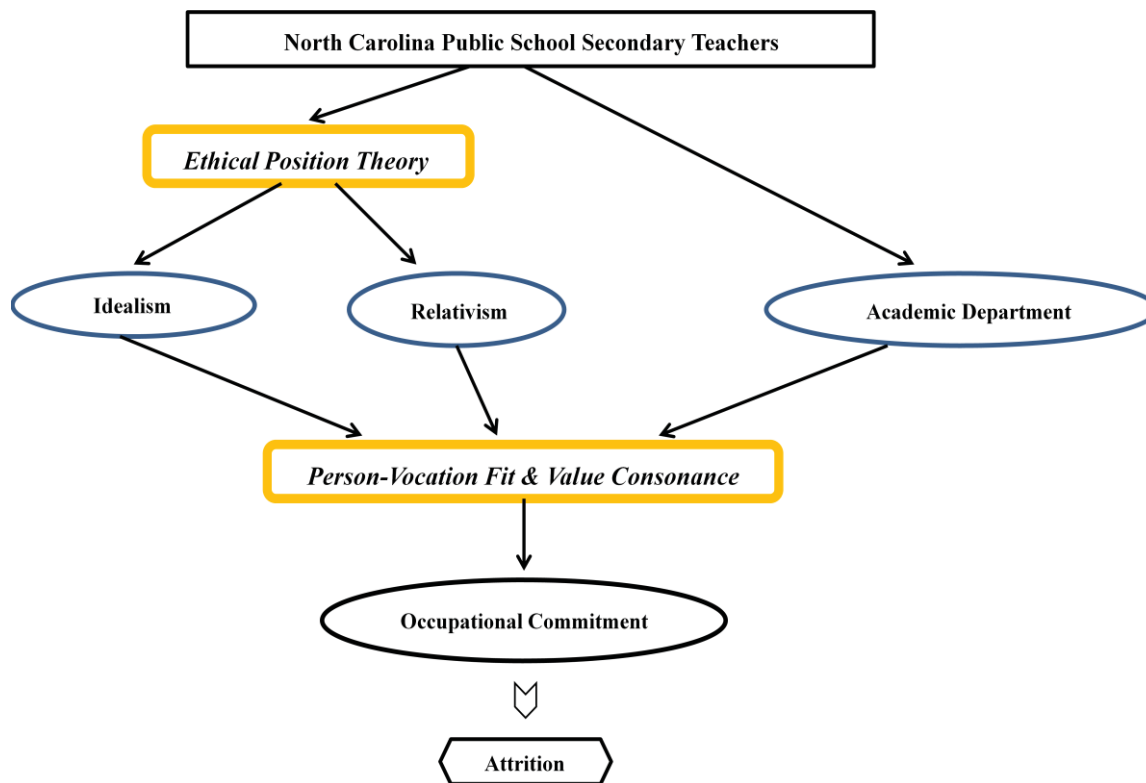


Figure 2.1 Visual presentation of study's theoretical framework

Summary

The literature review was organized around the primary variables in the study: ethical orientation operationalized as idealism and relativism, occupational commitment, and academic department. In addition, the review included the foundation topics of ethics, ethical orientation, turnover, and turnover/attrition. Consequently, the literature review included research from multiple disciplines in the social sciences, including accounting, business, education, marketing, and psychology. The theories used to establish the present study's theoretical framework were discussed and their synthesis was described with a culminating visual representation of the framework. The review supported the study and its

theoretical framework by demonstrating the presence of gaps in the research literature.

Specifically, research gaps were noted in four areas: (a) the ethical orientation of secondary teachers, (b) the relationship between ethical orientation and academic department, (c) the relationship between ethical orientation and attrition, and (d) the relationship between ethical orientation and occupational commitment. The present study directly addressed gaps (a), (b), and (d) and indirectly addressed gap (c) through the use of attrition as an outcome variable.

CHAPTER THREE

Research Design

In this chapter, information about the population, sampling process, instrumentation, pilot study, and prescreening analysis is presented. The present study used an ex post facto, non-experimental, predictive, survey-based design. A non-experimental approach was appropriate because the research subjects were available but not subject to grouping for experimentation (Sproull, 2002, p. 153). In addition, the purpose of the research was to examine the presence and strength of the relationship between idealism, relativism, occupational commitment, and the academic department of secondary teachers. The study was predictive because the tenth and final research question determined if idealism, relativism, and/or academic department predicted a significant amount of the variance in the occupational commitment of North Carolina public secondary school teachers. The study was survey-based because the subjects were located in multiple locations across North Carolina. Thus, data were collected most efficiently and contemporaneously through the use of Internet-based survey software.

Population

The targeted population used in the present study consisted of secondary teachers in North Carolina public high schools. North Carolina was chosen because of ongoing concerns with teacher loss (Table 3.1) and teacher compensation (Division of School Business, 2013). Each year, the North Carolina Department of Public Instruction acquires information on

reasons for teacher loss (Division of Educator Recruitment and Development, 2010; Division of Educator Recruitment and Development, 2011; Division of Educator Recruitment and Development, 2012; Educator Effectiveness Division, 2013; Talent Management and Development, 2009; Talent Management and Development Division, 2008). As the data in Table 3.1 shows, the rate of teacher loss in North Carolina has been above 10% for the last five years. During this same time period, the national unemployment rate averaged 8.08% (Bureau of Labor Statistics, 2013); in addition, a major economic recession occurred from December, 2007, to June, 2009 (National Bureau of Economic Research, 2010).

At a time of economic downturn, teachers continued to leave their employment in North Carolina schools at rates greater than the national unemployment rate. Reasons for this dilemma included loss due to retirement. Another reason for the loss was teacher attrition. Teacher attrition in North Carolina was estimated by combining two categories from the annual turnover report: resignation due to career change and resignation due to dissatisfaction with teaching. In North Carolina, approximately 5% of annual teacher loss was due to attrition. Although a small percentage of overall teacher loss, teacher attrition was a problem in North Carolina because of the constant loss of teachers due to retirement.

One of the most notable factors associated with teacher attrition was teacher compensation (Chapman & Hutcheson, 1982; Guarino, Santibanez, & Daley, 2006; Macdonald, 1999; Mobley, 2011). Poorly paid teachers were more likely to leave the profession than teachers with higher salaries. North Carolina ranked 46th of the 50 states in teacher compensation (Dalesio, 2013); in the 2011-2012 school year, the average salary for a

North Carolina teacher was \$45,933 while the national average was \$55,418 (Division of School Business, 2013). As another example, new teachers just graduating with a bachelor's degree started at an annual salary of \$30,800: if current pay structures continued, these new teachers would not reach an annual salary of \$40,000 for 15 years. The combination of teacher turnover and poor salary justified the use of North Carolina teachers as a suitable population for the present study.

Once North Carolina was selected as the study population, secondary teachers in public schools were chosen as the primary research population. By focusing specifically on secondary teachers in public schools, the research population was clearly delineated and defined. Public schools were chosen because all public schools must follow North Carolina Department of Instruction guidelines (Department of Instruction, n.d.). Secondary teachers were chosen for three reasons: (1) different licensing credentials were required for primary / middle / secondary teachers (Department of Public Instruction, n.d.), (2) secondary school teachers were organized into academic departments rather than by grade level (Siskin, 1991), and (3) media reports indicated ongoing public concerns with secondary education ("Poor academic showing," 1998; U.S. Dept. of Education, 2010). Because subcultures were shown to be present within secondary school settings (Grossman & Stodolsky, 1995; Siskin, 1991), secondary teachers from multiple academic departments were sampled in the present study.

Table 3.1

Stated Reasons Teachers Leave Teaching Positions in North Carolina: School Years 2007-2008 to 2012-2013

Year	Teachers Leaving	Total Teachers	% Teachers Leaving	Stated Reason	Frequency	Percentage
2012 - 2013	13,616	95,028	14.33	Retirement	2540	18.65
				Attrition*	887	6.51
2011 - 2012	11,791	97,184	12.13	Retirement	2505	21.25
				Attrition*	816	6.92
2010 - 2011	10,792.5	96,651	11.17	Retirement	2193	20.32
				Attrition*	640	5.93
2009 - 2010	11,012	99,241	11.10	Retirement	1897	17.23
				Attrition*	366	3.32
2008 - 2009	12,595	98,985	12.72	Retirement	2019	16.03
				Attrition*	541	4.30

Table 3.1 (continued)

Stated Reasons Teachers Leave Teaching Positions in North Carolina: School Years 2007-2008 to 2012-20123

Year	Teachers Leaving	Total Teachers	% Teachers Leaving	Stated Reason	Frequency	Percentage
2007 - 2008	13,432	96,966	13.85	Retirement	2184	16.26
				Attrition*	666	4.96

Note. * Attrition = Career Change + Dissatisfaction with Teaching. Statistics from "Teacher Turnover Report: Annual Report on the Reasons Teachers Leave" by Division of Educator Recruitment and Development, Department of Public Instruction, Public Schools of North Carolina.

Sample

The North Carolina Department of Public Instruction (NCDPI) issues a yearly profile of public teachers. According to the 2012-13 profile (Department of Public Instruction, n.d.), North Carolina had 27,362 secondary teachers (Table 3.2). Nearly two-thirds of secondary teachers were female. The vast majority of secondary teachers were white; less than one-fifth were black.

Table 3.2

Demographic Profile of North Carolina Secondary Teachers (N = 27,362), 2012-2013

Variable	Category	Frequency	Percentage
Gender	Male	9,870	36.1
	Female	17,492	63.9
Race	White	21,955	80.2
	Black	4,199	15.3
	Other	1,208	4.4
		<i>M</i>	<i>SD</i>
Age		42	n/a
Tenure (years)		13.55	n/a

Note. Mean age and tenure data were obtained from NCDPI personnel, standard deviations were not available (K. Elander, personal communication, February 14, 2014). Gender and race data were taken from the report “*Public school full-time personnel: State summary, school year 2012-2013*”, NCDPI.

Data Collection

The U.S. Census established the use of population density to define urban and rural areas (United States Census Bureau, 2013). Based on 2010 U.S. Census information, the population density of North Carolina was 196.1 people per square mile, ranging from a low of 9.5 in Hyde County to a high of 1,755.5 in Mecklenburg County (IndexMundi, 2013). The NCDPI website contained annual *Facts and Figures* reports for all school years since 2000. According to the 2012-2013 report (Department of Public Instruction, n.d.), the majority of public school districts in North Carolina were county-based (100 of 115, 87%). The number of students served by public school districts range from 568 students in Tyrrell County to 145,922 students in Wake County. The 429,096 secondary (9-12) students in North Carolina attended 486 secondary schools, 413 (85%) of which are 9-12 secondary schools that did not offer an Early College (grade 13) option. In the present study secondary teachers could not be asked to participate without the permission of school district officials; therefore, school districts were chosen as the unit of analysis. In order to obtain a sample representative of the entire population of North Carolina public secondary school teachers, a combination of purposive and random sampling was used.

School districts were selected based on their classification as urban or rural, and on their geographic location. Selected school districts from across the state were contacted by phone and/or email in order to obtain permission to conduct research. Once permission was received from district officials, at least two secondary schools from the district were randomly selected by Research Randomizer software (Urbaniak & Plous, 2013) for

participation. Five school districts agreed to participate in the study. The districts represented urban and rural settings in the mountain and Piedmont region of North Carolina. Two of the districts were among the ten largest in the state of North Carolina. Permission was not received from any districts in the coastal region of the state (see Table 3.3).

Table 3.3

North Carolina Public School Districts: Study Participants

County	Location	Population Type	Schools Sampled
A	Middle	Urban	4
B	Middle	Urban/Rural	4
C	Middle	Rural	2
D	Western	Urban	4
E	Western	Rural	2

Sample Size

Previous research demonstrated the usefulness of electronic formats for data collection through surveys (Shannon & Bradshaw, 2002). Sample size determinations for the study were made using the guidelines from Bartlett, Kotrlik, and Higgins (2001). Initial calculations indicated a recommended sample size of 118 participants/surveys. A review of response rates in survey-based dissertations at North Carolina State University yielded a wide range of response rates (minimum, 7%; maximum, 70%, $M = 36.7%$, $SD = 19.1%$). Due to the large range and standard deviation, a conservative response rate of 30% was chosen.

Final calculations indicated roughly 400 participants should be asked to participate in order to obtain the recommended sample size of 118.

Instrumentation and Measurement

Two established instruments were used in the present study. The first instrument, the Ethical Position Questionnaire (EPQ) was created by Forsyth in 1980. The EPQ was frequently utilized in accounting, marketing, psychology and other fields of research for the past three decades to measure idealism and relativism of respondents. The second instrument, the Occupational Commitment Scale (OCS) was created by Meyer, Allen, and Smith in 1993 as an extension of the Organizational Commitment Scale they presented in 1990.

Ethical Orientation

In the present study, ethical orientation was defined as a "system of ethics used to make moral judgments" (Henle et al., 2005, p. 219). Forsyth's taxonomy of ethical ideologies (1980) was based on earlier research by Schlenker and Forsyth (1977) that suggested "individual variations in approaches to moral judgment may be described most parsimoniously by taking into account two basic factors [idealism and relativism]" (Forsyth, 1980, p. 175). Idealism represented the belief that "desirable consequences can be brought about without violating moral guidelines" (Shaub, et al., 1993, p. 148). On the other hand, relativism represented the belief that a person cannot rely "on universal moral rules when drawing conclusions about moral questions" (Forsyth, 1980, p. 175). By utilizing the two dimensions of idealism and relativism, Forsyth was able to categorize personal ethical

ideology into four categories: situationist, subjectivist, absolutist, and exceptionist. To categorize individuals' personal ethical ideology, Forsyth developed the Ethics Position Questionnaire (EPQ). The original EPQ consisted of 20 statements that measured the magnitude of a person's idealism and relativism on a scale from 9 (low) - 90 (high). Most research done with the EPQ did not utilize Forsyth's four categories listed above; instead, research focused on levels of idealism and relativism (Clikeman et al., 2001; Deering, 1998; Donoho et al., 2012; Fernando et al., 2007; Henle et al., 2005; Putranta & Kingshott, 2011; Shaub et al., 1993; Vitell & Singhapakdi, 1993).

Ethical Position Questionnaire

In developing the EPQ, Forsyth (1980) used item-to scale mean correlations and principal-components factor analysis with orthogonal varimax rotation to narrow the number of potential items from 55 to 27. Interscale correlations between the initial EPQ items and Edwards' Social Desirability Scale were used to further reduce the number of items. Internal reliability of the idealism and relativism scales was examined using Cronbach's alpha calculations where idealism $\alpha = 0.80$ and relativism $\alpha = 0.73$ (Forsyth, 1980). Concurrent and discriminant validity of the final EPQ scale were examined through a correlation analysis that compared the EPQ to the Defining Issues Test and Survey of Ethical Attitudes.

The EPQ has been utilized frequently since its original development in 1980. Several research studies using the EPQ have consistently reported alpha values above 0.80 for idealism and above 0.75 for relativism. See Table 3.4 for a listing of these studies.

Two studies that examined the psychometric properties of the EPQ in detail included a study by Davis, Andersen, and Curtis in 2001 and a 2007 study by MacKewn and VanVuren. Both studies are discussed. Davis et al. (2001) performed a confirmatory factor analysis of the EPQ and compared the EPQ to the multidimensional ethics scale (MES) developed by Reidenbach and Robin (1988, 1990). In the Davis et al. (2001) analysis, the researchers found a three factor model of idealism, relativism, and veracity resulted in a better fit (Bentler comparative fit index, $\Delta = 0.91$) than Forsyth's original two factor model (Bentler CFI, $\Delta = 0.78$).

The second part of the Davis et al. (2001) study compared the EPQ to the MES. Once again, the three factor model provided a better fit (Bentler comparative fit index, $\Delta = 0.90$) than Forsyth's two factor model (Bentler comparative fit index, $\Delta = 0.85$). In both parts of the study, the predictive power of idealism on moral judgments was greater than the predictive power of relativism. As part of a general discussion on the EPQ, the researchers noted:

With respect to Forsyth's original factors, the evidence for reliability and validity is promising... In addition, the absence of any correlation between idealism and relativism supports Forsyth's (1980) contention that these factors address different issues. Hence, these results bolster arguments for discriminant validity... Although support for the predictive validity of the EPQ was mixed, we still believe the measures have utility for business researchers ... (Davis et al., pp. 48-49)

Table 3.4

Reported Cronbach's Alpha (α) Values for the EPQ

Authors	Date	Idealism	Relativism
Forsyth	1980	0.80	0.73
Forsyth, Nye, & Kelley	1988	0.82	0.84
Shaub, Finn, & Munter	1993	0.83	0.84
Vitell & Singhapakdi	1993	0.87	0.81
Singhapakdi, Kraft, Vitell, & Rallapalli	1995	0.85	0.79
Barnett, Bass, & Brown	1996	0.82	0.79
Singhapakdi, Vitell, & Franke	1999	0.82	0.81
Clikeman, Schwartz, & Lathan	2001	0.83	0.83
Henle, Giacalone, & Jurkiewicz	2005	0.83	0.79
Putranta & Kingshott	2011	0.85	0.84
Donoho, Heinze, & Kondo	2012	0.82	0.81

Despite evidence suggesting the presence of a third factor, veracity, the researchers decided "it is not altogether clear whether veracity should be treated as a distinct factor" (p. 49) because of the significant positive correlation between relativism and veracity ($r = 0.37$, $p < 0.01$). Ultimately, the researchers concluded with a final accolade for the EPQ and Forsyth's four-category model of ethical orientation, writing "the measure [EPQ] remains a promising tool for understanding individual differences" (p. 50).

In 2007, MacKewn and Van Vuren performed a cluster and discriminant analysis of the EPQ in addition to a correlation and confirmatory factor analysis. Starting with a Spearman analysis of internal and external correlation of the EPQ items, MacKewn and Van Vuren concluded there were strong internal correlations but "essentially" (p. 21) no correlation between the idealism and relativism scale items. From there, the research proceeded to a factor analysis. Forcing a two factor solution resulted in the expected split of items; an "open-ended" (p 21) factor analysis resulted in a six factor model. However, the six factors still grouped within the two larger categories of idealism and relativism. Discriminant analysis indicated that over 90% of subjects were correctly classified as idealists or relativists. Despite some potential limitation suggested by the six factor model produced by open-ended factor analysis, the researchers concluded that "people can, indeed, be delineated along the lines of idealism and relativism ... we also conclude that the survey instrument ... does a creditable job of making that delineation" (p. 24).

In the present study, the EPQ items were analyzed for internal reliability (Cronbach's alpha and Spearman-Brown coefficient) and subjected to exploratory factor analysis because the EPQ had only been used once with teachers (Deering, 1998). Reliability results from the present study were compared to Cronbach's alphas reported in previous research. Exploratory factor analysis was used to determine which items, if any, should be excluded from further analysis.

For over 30 years the EPQ has been utilized in multiple research fields such as business, education, and ethical decision-making. Researchers have consistently reported

strong internal consistency for idealism and relativism. The two critical analyses by Davis et al. (2000) and MacKewn and VanVuren (2007) concluded that the instrument was useful for uncovering information about subject levels of idealism and relativism. The EPQ was therefore, a suitable, instrument for the present study.

Occupational Commitment

In the present study occupational commitment was defined "as a psychological link between a person and his or occupation" (Lee et al., 2000, p. 800). A person with high affective occupational commitment had a "strong desire to remain in the occupation" (Meyer et al., p. 540). A person with high continuance occupational commitment recognized the "high costs associated with leaving the occupation" (Meyer et al., 1993, p. 540). A person with high normative occupational commitment had a strong "sense of obligation" to remain in the occupation (Meyer et al., 1993, p. 540). The occupational commitment scale (OCS) consisted of 18 items split equally among the three scales of affective, continuance, and normative commitment. A composite commitment score was calculated for each scale by averaging the relevant item responses and summing the averages.

Occupational Commitment Scale

Meyer et al. (1993) used multiple techniques to develop and validate the occupational commitment scale. Initially, the researchers used principal component analysis on 30 items to reduce the scale to 18 items. Cronbach's alpha determinations (see Table 3.5 for detailed data) for each subscale were above 0.70, the acceptable minimum (Hair et al., 2006).

Confirmatory factor analysis and maximum likelihood solutions (LISREL) were used to determine if the scale discriminated between the three constructs. A three factor model provided the best fit with sample data (provided in Table 3.6). Construct validity was evaluated by examining proposed relationships between the scale components and antecedent variables using correlation analysis. The antecedent variables examined were age, years in nursing, career status, and job satisfaction. In addition, the authors examined proposed relationships between scale components and consequence variables, including intention to leave the profession, intention to leave the organization, and professional involvement. Except for one non-significant positive correlation between age and CCS-OCC (continuance commitment scale, occupational commitment), the correlations between occupational commitment and nursing age and tenure were all positive and significant ($p < 0.01$). Other relationships between the variables also supported the authors' hypothesized relationships.

Criterion validity was examined by calculating internal correlations within the occupational commitment scale. The affective commitment scale had a moderate association with the normative commitment scale ($r = 0.485$) and low, negative association with the continuance commitment scale ($r = -0.117$); the continuous commitment scale had low association with the normative commitment scale ($r = 0.215$). Each correlation was significant; with $p < 0.05$ (see Table 3.7).

Table 3.5

Internal Reliability (Cronbach's Alpha) of the Occupational Commitment Scale (OCS)

Authors	Year	Internal Reliability		
		Affective	Continuance	Normative
Meyer, Allen, & Smith	1993	0.82	0.76	0.80
Irving, Coleman, & Cooper	1997	0.79	0.83	0.83
Snape & Redman	2003	0.79	0.79	0.83
Chang, Du, & Huang	2006	0.86	0.79	0.77
Chang, Chi, & Miao	2007	0.86	0.71	0.84
Snape, Lo, & Redman	2008	0.80	0.84	0.86

Table 3.6

Confirmatory Factor Analysis of the Occupational Commitment Scale

Authors	Year	<i>N</i>	Model	χ^2	<i>df</i>
Meyer, Allen, & Smith	1993	530	1 factor	1,602.87	145
			2 factor	1,037.79	134
			3 factor	475.72	132
Irving, Coleman, & Cooper	1997	227	1 factor	1,318.72	135
			2 factor	735.16	134
			3 factor	327.96	132
Snape & Redman	2003	678	1 factor	2,411.71	135
			2 factor	1,352.24	134
			3 factor	568.60	132
Snape, Lo, & Redman	2008	285*	1 factor	959.824	135
			2 factor	568.187	134
			3 factor	440.004	132
Snape, Lo, & Redman	2008	788**	1 factor	3,225.082	135
			2 factor	1,490.323	134
			3 factor	643.582	132

Note. * Chinese sample, **British sample.

Table 3.7

Correlations within the Occupational Commitment Scale

Author	Year		Pearson Correlation (<i>r</i>)	
			ACS	CCS
Meyer, Allen, & Smith	1993	CCS	-0.117*	
		NCS	0.485*	0.215*
Irving, Coleman, & Cooper	1997	CCS	0.046	
		NCS	0.218*	0.110*
Snape & Redman	2003	CCS	0.11**	
		NCS	0.37**	0.30**
Snape, Lo, & Redman	2008	CCS	0.04	
		NCS	0.39**	0.13**

Note. Adapted from (a) Meyer, Allen, and Smith, 1993, p. 545; (b) Irving, Coleman, & Cooper, 1997, p. 448; (c) Snape & Redman, 2003, p. 156; and (d) Snape, Lo, & Redman, 2008, p. 775. ACC = affective commitment scale, CCS = continuance commitment scale, NCS = normative commitment scale. * $p < 0.05$, ** $p < 0.01$

The sample used by Meyer et al. (1993) consisted of Canadian student and registered nurses, a limitation noted by the authors. The authors also noted the presence of a moderate correlation between affective and normative commitment; in their discussion, the authors

stated they were unable to determine if the correlation was due to their sample or to scale modifications made during the study.

A number of groups have used the OCS since its development in 1993 (Cunningham & Sagas, 2004; Chang, Chiu, & Miao, 2007; Chang, Du, & Huang, 2006; Irving et al., 1997; Lopopolo, 2002; Snape, Lo, & Redman, 2008; Snape & Redman, 2003). The studies have consistently reported alpha values above 0.75 for affective, continuance, and normative commitment (shown in Table 3.5). Three studies (Irving et al., 1997; Snape et al., 2008; Snape & Redman, 2003) utilized confirmatory factor analysis of the OCS as part of their study. Each study is discussed.

In 1997, additional analysis of the three-component model of occupational commitment was performed by Irving, Coleman, and Cooper. The population sample used in their study consisted of Canadian government workers in a variety of occupations rather than the homogeneous population utilized by Meyer et al. (1993). Coefficient alphas for the affective, continuance, and normative scales were 0.79, 0.83, and 0.83, respectively. Confirmatory factor analysis yielded similar results to earlier work: the best fit occurred when all three factors were included (See Table 3.6 for results). Correlations among the occupational scales were smaller than reported by Meyer et al. (1993), suggesting the earlier calculations may have been impacted by the sample population. Irving et al (1997) concluded their investigation of the OCS on a positive note, stating "the present findings suggest that Meyer et al.'s (1993) three-component model of occupational commitment is robust across occupational groupings" (p. 450).

Six years later, Snape and Redman (2003) published a study of human resource management specialists in the United Kingdom. In terms of alpha coefficients, inter-scale correlations, and confirmatory factor analysis, the results of the Snape and Redman study were consistent with the previous research by Meyer et al. (1993) and Irving et al. (1997). In 2008, Snape et al. (2008) presented a comparative study of British and Chinese accountants. Confirmatory factor analysis was performed with each sample of accountants. In terms of alpha coefficients, inter-scale correlations, and confirmatory factor analysis, the results of this 2008 study were consistent with previous research. Details of the 2003 and 2008 studies are presented in Tables 3.5, 5.6, and 3.7.

In the present study, the OCS items were analyzed for internal reliability (Cronbach's alpha, Spearman-Brown coefficient) and subjected to exploratory factor analysis because the OCS had not been previously used with teachers. Reliability results from the present study were compared to Cronbach's alphas reported in previous research. Exploratory factor analysis was used to determine which items, if any, should be excluded from further analysis.

The OCS was first published in 1993. Since the initial creation and analysis by Meyer et al. (1993), the OCS has been utilized by researchers in multiple countries with several different populations. The studies by Meyer et al. (1993), Irving et al. (1997), and Snape & Redman (2003) demonstrated the utility of the OCS for measuring occupational commitment in multiple professions. The consistent results obtained from the reliability determinations, confirmatory factor analyses, and correlation studies supported the choice of OCS for use in the present study.

Pilot Study

In a case study designed to elicit techniques for maximizing the utility of Web-based surveys (Andrews, Nonnecke, & Preece, 2003), the authors emphasized the importance of a pilot study "to perfect the survey, sampling, survey distribution, and estimate response rates" (p. 194). A pilot study was conducted at a North Carolina secondary school in May, 2013, to evaluate the survey used in the present study for clarity, ease of use by participants, and to conduct a preliminary investigation of the EPQ and OCS. Since the pilot study was conducted at one school, the piloted survey did not include demographic or academic department information to assure participant anonymity and confidentiality. The piloted survey contained only the EPQ and the OCS measures. The survey link was provided to 70 certified staff members (teachers and support staff) at the selected school. All certified staff members who were not administrators were included to provide the largest pool of potential respondents.

A total of 62 surveys were returned: 60 cases (96.8%) were suitable for analysis. Univariate and multivariate pre-screening techniques were carried out resulting in a final dataset of 59 cases. Cronbach's alpha and Spearman-Brown coefficients were calculated as measurements of internal reliability (Table 3.8). Based on both measures, the internal reliability of the OCS was consistent with previous research because all values were above 0.7 (Hair et al., 2006); the internal reliability of the EPQ was lower, especially for the relativism scale.

Table 3.8

Internal Reliability of EPQ and OCS from Pilot Study

Scale	Cronbach's Alpha	Spearman-Brown
EPQ - Idealism	0.688	0.629
EPQ - Relativism	0.361	0.191
OCS - Affective	0.815	0.789
OCS - Continuance	0.836	0.837
OCS - Normative	0.853	0.883

One potential explanation for the lower reliability of the EPQ than the OCS was the complexity of the writing in the EPQ versus the OCS. A readability analysis of both surveys was conducted through the website www.readability-score.com (Childe, n.d.). The website used the following tests to evaluate readability: Flesch-Kincaid Grade Level, Gunning-Fog Score, SMOG Index, and Automated Readability Index. The average grade level of the EPQ was grade 12.2 (above high school); the average grade level of the OCS was grade 8.3 (middle / junior high school).

Several participants in the pilot study commented on item wording. For example, one participant wrote, "The wording of the questions was vague. Several statements had negative statements. Confusing." In the pilot study, several of the EPQ items were rewritten in reverse-scaled format. Although there was only a small difference in the average grade level of the pilot-version EPQ and the original EPQ, the reconfiguration of the items as reverse-scale may have contributed to the low Cronbach's alpha by increasing the reading complexity

of the items. To avoid this potential complication, all EPQ items were used in the original EPQ format in the final survey.

Over 90% of study participants found the directions to be "clear and easy to understand." Based on the results from the pilot study, no changes were made to the OCS portion of the survey. The Likert scale was inserted more frequently to ensure participants had easy access to the scale throughout the survey.

Data Collection

Data for the study were collected through the use of Survey Monkey™ (www.surveymonkey.com). Survey Monkey was chosen as the survey platform because survey results could be exported directly into SPSS. After receiving permission from district officials, teacher email addresses were obtained from school administrators or the school website. Email addresses were deleted from the researcher's computer once the data collection process ended. Data collection was done in two steps. The first email invitation was sent out on Thursday, September 5, 2013. On Monday, September 23, a reminder email was sent out. Data was collected from Thursday, September 5, through Friday, October 4, 2013. Fifty-one responses were received, for a response rate of less than 15% ($N = 461$).

Due to the low response rate, a second round of data collection was done from October 21, 2013 through November 13, 2013. The invitation email was rewritten with a more persuasive request for help, but no other changes were made to the text. 143 responses were received during the second data collection period, for a response rate of 41% ($N = 347$). The data from both collection periods was combined, for a total of 194 responses, or a total response rate of 24% ($N = 808$). The relatively low response rate was consistent with

previous reports which have indicated electronic surveys may suffer from lower response rates in comparison to traditional mail-based surveys (Cook, Heath, & Thompson, 2000; Shannon & Bradshaw, 2000) .

Data Analysis

The initial data set consisted of 194 cases. Cases were examined for suitability based on survey completion. One case was removed because the respondent did not mark "agree" to the informed consent; 11 cases were removed because no survey questions were answered; five cases were removed because the respondent's academic department was not clear; 22 cases were removed because more than 50% of the items were not answered; one case was removed because 30% of the items were not answered on one instrument (Hair et al., 2006). Of the original set of 194 cases, 154 remained for prescreening.

Data collected for the present study were prescreened to ensure that the raw data obtained was appropriate for the proposed analytical techniques (Hair et al., 2006; Mertler & Vannatta, 2010). The statistical package, IBM SPSS Statistics 21™, was used for prescreening and other data analysis. The variables examined in the study consisted of quantitative and categorical variables. Prescreening of the data was performed before the research questions were examined. The data were examined for the presence of missing data, univariate outliers and normality. Categorical variables were examined for univariate homoscedasticity. Following examination of the individual variables, the data were examined for the presence of multivariate outliers, normality, and homogeneity of variance-

covariance. The prescreening process eliminated cases that were not suitable for further analysis; the final dataset consisted of 126 cases.

Internal reliability of the EPQ and OCS subscales were evaluated through the calculation of Cronbach's alphas and Spearman-Brown coefficients. All Cronbach's alphas were greater than 0.70, the acceptable minimum for Cronbach's alpha (Hair et al., 2006). Items # 11 (EPQ, relativism) and # 37 (EPQ, idealism) were the only items in the EPQ or OCS with negative inter-correlation values. Removal of items # 11 and # 37 raised the Cronbach's alpha from 0.760 to 0.782 for idealism and from 0.764 to 0.775 for relativism. All Spearman-Brown coefficient values were above 0.70, indicating satisfactory reliability. Items # 11 and # 37 were retained in the data set that proceeded to exploratory factor analysis.

Exploratory factor analysis was performed for the occupational commitment scale because it had not been previously used to collect data from a population of teachers. Exploratory factor analysis was also performed for the EPQ for similar reasons; it had been used with teachers in only two previous studies (Deering, 1998; Deering et al., 1994). EPQ and OCS items were subjected to factor analysis concurrently.

The initial factor analyses were based on eigenvalues and used the orthogonal rotation method of varimax. The first analysis included items # 11 and #37 in the data set. Visual examination of the scree plot indicated the presence six factors before the plateau formed; 11 factors had eigenvalues above one. When items # 11 and # 37 were removed prior to a second analysis, the scree plot indicated the presence of five factors before the plateau

formed; eight factors had eigenvalues above one. Based on initial results, a second round of factor analysis was performed using the a priori criterion of five factors. Using an a priori criterion was appropriate, given the established nature of both instruments (Hair, et al., 2006). Five factor analysis of the data set that included items # 11 and # 37 accounted for 47.926% of the variance. The scale items did not sort as expected. Five factor extraction of the data set that did not include items # 11 and # 37 accounted for 49.834% of the variance. All items sorted properly. As a result of the exploratory factor analysis, items # 11 and # 37 were removed from the EPQ before further analysis.

Table 3.9, Identification of Metric Types and Appropriate Statistical Method for Research Questions, summarizes the statistical methods used to answer research questions 1 - 11. The discrete variables of idealism, relativism, age, years of experience (tenure), and occupational commitment were treated as continuous due to the large number of values (Agresti & Finlay, 2009, p. 14). Academic department, ethnicity, and gender were nominal, categorical variables. The categories in the variable of academic department were established by NCDPI high school graduation requirements (Department of Public Instruction, 2012).

Research questions 1 - 5 were descriptive. To answer research question one, "what are the demographics of North Carolina (NC) secondary teachers," the variables of age and tenure were described by using mean and standard deviation as measurements of centrality. The variables of ethnicity and gender were described using frequency and percentage calculations. To answer research question two, "which academic department best fits NC

secondary school teachers' work assignments," frequency and percentage were calculated for each category. To answer research question three, "how idealistic are NC secondary school teachers," the mean and standard deviation were used as measurements of centrality. To answer research question four, "how relativistic are NC secondary school teachers," the mean and standard deviation were used as measurements of centrality. To answer research question five, "what is the occupational commitment of NC secondary school teachers," the mean and standard deviation were used as measurements of centrality.

Research questions 6 - 10 examined the degree of relationship between two variables. There were multiple statistical tests that could be used to measure the degree of relationship or association between variables. One of the most common measurements, the Pearson correlation, was used to measure the degree of relationship between two quantitative variables (Agresti & Finlay, 2009; Green & Salkind, 2011). When the independent variable was categorical and the dependent variable was quantitative, ANOVA analysis was used to determine if significant differences existed between categorical means. The ANOVA method examined variability both within and between groups (Mertler & Vannata, 2010).

To answer research question six, "is there a significant difference in idealism between teachers in different academic departments," an analysis of variance (ANOVA) was conducted. To answer research question seven, "is there a significant difference in relativism between teachers in different academic departments," ANOVA analysis was performed. In each ANOVA analysis, academic department was the grouping variable. To answer research

Table 3.9

Identification of Metric Types and Appropriate Statistical Method for Research Questions

Question Number	Question Focus	Variable	Metric Type	Statistical Method(s)
1	Description	Age	Continuous	Mean, Standard Deviation
1	Description	Tenure	Continuous	Mean, Standard Deviation
1	Description	Ethnicity	Categorical	Frequency, Percentage
1	Description	Gender	Categorical	Frequency, Percentage
2	Description	Academic Department	Categorical	Frequency, Percentage
3	Description	Idealism	Continuous	Mean, Standard Deviation
4	Description	Relativism	Continuous	Mean, Standard Deviation
5	Description	Occupational Commitment	Continuous	Mean, Standard Deviation
6	Relationship	Idealism	Continuous	ANOVA
		Academic Department	Categorical	
7	Relationship	Relativism	Continuous	ANOVA
		Academic Department	Categorical	

Table 3.9 (continued)

Identification of Metric Types and Appropriate Statistical Method for Research Questions

Question Number	Question Focus	Variable	Metric Type	Statistical Method(s)
8	Relationship	Idealism	Continuous	Pearson Correlation
		Occupational Commitment	Continuous	
9	Relationship	Relativism	Continuous	Pearson Correlation
		Occupational Commitment	Continuous	
10	Relationship	Occupational Commitment	Continuous	ANOVA
		Academic Department	Categorical	
11	Predictive	Idealism (IV)	Continuous	Multiple Regression
		Relativism (IV)	Continuous	
		Academic Department (IV)	Categorical	
		Occupational Commitment (DV)	Continuous	

question eight, "is there a relationship between idealism and occupational commitment," the Pearson correlation coefficient was calculated. To answer research question nine, "is there a relationship between relativism and occupational commitment," the Pearson correlation coefficient was calculated. To answer research question ten, "is there a relationship between academic department and occupational commitment," ANOVA analysis was performed instead of a Pearson correlation coefficient calculation because academic department was categorical instead of quantitative.

Research question 11 was predictive. To answer research question eleven, "do idealism, relativism, and/or academic department explain a significant amount of variance in the occupational commitment of NC secondary school teachers," multiple regression analysis was planned. Multiple regression would have been appropriate because multiple regression analysis includes three or more independent variables in the analysis (Agresti & Finlay, 2009; Hair et al., 2006; Mertler & Vannatta, 2010). The categorical variable of academic department would have been included in the analysis through the use of dummy coding (Hair et al., 2006), which would have reconfigured academic department into a quantitative variable. However, previous analysis of the data had consistently demonstrated the lack of relationship between the variables of idealism, relativism, and academic department with occupational commitment. Therefore, multiple regression analysis was not appropriate. Idealism, relativism, and/or academic department did not explain a significant amount of variance in the occupational commitment of NC secondary school teachers because no relationship existed between the chosen variables.

After examining the data obtained in the present study, the results of the present study were compared to results from previous studies (when possible). These additional comparisons were used to uncover more information about North Carolina secondary teachers and their ethical beliefs. Analytical methods used in this section of the data analysis included one-sample *t*-tests, paired samples *t*-tests, and independent samples *t*-tests.

Summary

The present study was an exploratory study of the relationships between the idealism, relativism, academic department, and occupational commitment of North Carolina public secondary school teachers. Forty cases were removed before prescreening analysis because of missing or unclear data. Prescreening of the data resulted in the removal of 28 additional cases that were unsuitable for analysis. Eleven research questions were investigated in the study. Statistical methods used in the analysis frequencies, means, standard deviations, Pearson's correlation coefficients, and ANOVA.

CHAPTER FOUR

Results

North Carolina secondary school teachers were surveyed in order to learn more about their idealism, their relativism, the academic department which best fit their teaching assignment, and their occupational commitment to the profession of teaching. The Ethical Position Questionnaire (EPQ, Forsyth, 1980) was utilized to collect data about respondents' idealism and relativism. The Occupational Commitment Scales (OCS, Meyer et al., 1993) was utilized to collect information about respondents' occupational commitment. Demographic information about respondents' age, gender, ethnicity, years of teaching experience, and preservice preparation was also collected. Data was collected through the use of Survey Monkey™.

Surveys were collected from 194 respondents (response rate = 24%). Univariate and multivariate prescreening reduced the final dataset to 126 cases. The statistical methods of mean and standard deviation, frequency and percentage, correlation and ANOVA analysis were used to answer 11 research questions and eight related hypotheses. The chapter is organized in chronological and numerical order: pilot study, internal reliability of study data, research questions and related hypotheses.

Pilot Study

The pilot study was conducted at a North Carolina secondary school in May, 2013, to evaluate the survey for clarity, ease of use by participants, and to conduct a preliminary

investigation of the EPQ and OCS. Over 90% of study participants ($N = 62$) found the directions to be "clear and easy to understand." The Cronbach's alpha for the idealism portion of the EPQ was 0.688; the Cronbach's alpha for the relativism portion of the EPQ was 0.361; the average Cronbach's alpha for the OCS (3 subscales) was 0.835 ($SD = 0.19$). Cronbach's alpha values from 11 previous studies that utilized the EPQ reported an average alpha of 0.83 ($SD = .02$) for idealism subscale; the average alpha for the relativism subscale was 0.81 ($SD = 0.03$); the average Cronbach's alpha for the OCS subscales from six previous studies was 0.81 ($SD = 0.01$). The individual Cronbach's alpha values from the previous EPQ and OCS studies were presented in Tables 3.4 and 3.5 in Chapter Three.

One potential explanation for the lower reliability of the EPQ than the OCS was the complexity of the writing in the EPQ versus the OCS. A readability analysis of both surveys was conducted through the website www.readability-score.com (Childe, n.d.). The website used the following tests to evaluate readability: Flesch-Kincaid Grade Level, Gunning-Fog Score, SMOG Index, and Automated Readability Index. The average grade level of the EPQ was grade 12.2 (above high school); the average grade level of the OCS was grade 8.3 (middle / junior high school).

Several participants in the pilot study commented on item wording. For example, one participant wrote, "The wording of the questions was vague. Several statements had negative statements. Confusing." In the pilot study, several of the EPQ items were rewritten in reverse-scaled format. Although there was only a small difference in the average grade level of the pilot-version EPQ and the original EPQ, the reconfiguration of the items as reverse-scale may have contributed to the low Cronbach's alpha by increasing the reading complexity

of the items. To avoid this potential complication, all EPQ items were used in the original EPQ format in the final survey.

Internal Reliability of Study Data

Cronbach's alpha and Spearman-Brown coefficients were calculated for the final 126 cases used for data analysis (Table 4.1). The internal reliability (Cronbach's alpha) of the EPQ relativism score was much higher than in the pilot study, 0.764 compared to the pilot study value of 0.361; the alpha score of the EPQ idealism score was also higher than the value from the pilot study (0.760 compared to 0.688). The average Cronbach's alpha of the three OCS subscales was 0.803 ($SD = 0.032$). The Cronbach's alpha values for the EPQ were slightly lower than previously reported values (see Table 3.4); the Cronbach's alpha values for the OCS were similar to previous studies (see Table 3.5). The Spearman-Brown coefficients were calculated to examine the reliability between items presented early in the survey versus items presented later in the survey.

Table 4.1

Internal Reliability of EPQ and OCS from Study

Scale	Cronbach's Alpha	Spearman-Brown
EPQ - Idealism	0.760	0.809
EPQ -Relativism	0.764	0.791
OCS - Affective	0.789	0.716
OCS - Continuance	0.780	0.769
OCS - Normative	0.840	0.860

Research Question (RQ) One

What are the demographics (age, ethnicity, gender, tenure, teacher preparation route) of North Carolina secondary school teachers?

To answer RQ 1, respondents were surveyed to provide information about their age, ethnicity, gender, type of teacher preparation, tenure (years of experience in teaching), and teacher preparation route. Respondents were asked to identify themselves as White, Black, or Other to maintain consistency with North Carolina Department of Public Instruction (NCDPI) information (Department of Public Instruction, n.d.). NCDPI demographic information about North Carolina secondary teachers was presented in Table 3.2 in Chapter Three. The typical respondent in the study was a white, 41 year old female who was a first career, traditional teacher. Detailed demographic information about the study sample is presented in Table 4.2.

Table 4.2

Demographic Information about Sample (N = 126) used in Study

Variable	Number of Responses	Category	Frequency	Percentage
Gender	125	Male	48	38.4
		Female	77	61.6
Ethnicity	126	Black	3	2.4
		White	121	96.0
		Other	2	1.6
Teacher Preparation	114	Traditional	75	65.8
		Lateral Entry	39	34.2
		Range	<i>M</i>	<i>SD</i>
Age (years)	121	22 - 68	41.25	11.60
Tenure (years)	92	0 - 32	12.19	8.36

Research Question Two

Which academic department best fits NC secondary school teachers' teaching assignment?

To answer RQ 2, respondents were surveyed to provide information about the academic department which best fit their individual teaching assignment. Classification of academic departments was determined by North Carolina high school graduation requirements (Department of Public Instruction, 2012). Career/Technical and Mathematics teachers were the most frequent respondents in the study; World Language teachers were the

smallest group of respondents. Detailed information about the number of respondents per academic department is presented in Table 4.3.

Table 4.3

Academic Department of Survey Respondents (N = 126)

Department	Frequency	Percentage
Career / Technical	25	19.8
English	17	13.5
Fine Arts	9	7.1
Health & Physical Education	9	7.1
Mathematics	24	19.0
Science	14	11.1
Social Studies	21	16.7
World Languages	7	5.6

Research Question Three

How do NC secondary school teachers score on the EPQ idealism scale?

To answer RQ 3, respondents were surveyed to provide information about their level of idealism. In the study, idealism was defined as "the extent to which an individual believes that desirable consequences can be brought about without violating moral guidelines, " (Shaub et al., 1993, p. 148). Nine items from the Ethical Position Questionnaire were used

to measure respondents' level of idealism. Respondents' scores were calculated by summing their responses to the nine items. The maximum possible score was 63 (nine items with a 7 step Likert scale). The mean idealism score of the sample was 47.51 ($SD = 7.74$).

Research Question Four

How do NC secondary school teachers score on the EPQ relativism scale?

To answer RQ 4, respondents were surveyed to provide information about their level of relativism. In the study, relativism was defined as "the rejection of absolute moral rules to guide behavior" (Shaub et al., 1993, p. 148). Nine items from the Ethical Position Questionnaire were used to measure respondents' level of relativism. Respondents' scores were calculated by summing their responses to the nine items. The maximum possible score was 63 (nine items with a 7 step Likert scale). The mean relativism score of the sample was 36.04 ($SD = 9.37$).

Research Question Five

How do NC secondary school teachers score on the OCS scale?

To answer RQ 5, respondents were surveyed to provide information about their level of occupational commitment to the teaching profession. In the study, occupational commitment was defined as "as a psychological link between a person and his or her occupation" (Lee et al., 2000, p. 800). The OCS (Meyer et al., 1993) measures three components of occupational commitment: affective (6 items), continuance (6 items), and normative (6 items). Meyer et al. (1993) defined affective occupational commitment as "a

strong desire to remain in the occupation" (p. 540); continuance occupational commitment as recognizing the presence of "high costs associated with leaving the occupation" (p. 540); and normative occupational commitment as having "a sense of obligation" (p. 540) to remain in the profession. In this study, the individual components of occupational commitment were not examined; rather, a general level of occupational commitment was the desired measurement. All eighteen items from the OCS were used to measure respondents' level of occupational commitment to teaching. Respondents' scores were calculated by summing the mean of their responses to each component. The maximum possible score was 21 (three components with a 7 step Likert scale). The mean occupational commitment was 14.66 ($SD = 2.67$).

Research Question / Hypothesis Six

The remaining research questions (6 through 11) analyzed the strength and nature of the relationship(s) between the variables idealism, relativism, academic department, and occupational commitment. At least one hypothesis was associated with each research question (6 through 11) in order to establish a framework for the analysis and to assist in interpreting the results of the analysis.

RQ₆: Is there a significant difference in idealism between teachers in different academic departments?

H₆: There is a significant difference in the idealism of teachers in different academic departments.

To answer RQ 6, a one-way analysis of variance (ANOVA) was conducted to examine the relationship between idealism and academic department. The independent variable, academic department, included the eight categories listed in Table 4.3. Three categories (Fine Arts, Health & Physical Education, World Languages) had less than 10 observations each. Since unequal sample sizes may adversely affect homogeneity of variance (Grace-Martin, 2014), researchers have suggested minimum group sizes of 15 (Green & Salkind, 2011) or 20 (Hair et al., 2006). The dependent variable was idealism. The mean idealism and standard deviation of each academic department are presented in Table 4.4.

The result of the Levene's test for equality of variances indicated the homogeneity of variance assumption had not been violated ($p > .7$); despite this assurance, the results were interpreted with extreme conservatism and caution because the categories were uneven in terms of size ($M = 15.8$, $SD = 7.1$). The result of the ANOVA test was not significant, as $F(7, 118) = 1.427$, $p = .201$, and $\eta^2 = 0.078$, indicating the relationship between the two variables was weak. Less than 8% (η^2) of the variability in the idealism scores could be predicted based on academic department (Trusty, Thompson, & Petrocelli, 2004).

No significant differences were found between the idealism of teachers in different academic departments. Hypothesis six proposed the opposite result. Thus, the null hypothesis that there was no significant relationship between academic department and idealism could not be rejected (Agresti & Finlay, 2009).

Table 4.4

Idealism of Teachers (N = 126) by Academic Department

Department	<i>N</i>	<i>M</i>	<i>SD</i>
Career/Technical	25	47.20	6.54
English	17	46.41	6.72
Fine Arts	9	50.67	9.57
Health & Physical Education	9	53.22	6.48
Mathematics	24	48.29	7.57
Science	14	46.50	8.41
Social Studies	21	44.86	8.62
World Languages	7	47.14	7.73
Total	126	47.51	7.74

Research Question / Hypothesis Seven

RQ₇: *Is there a significant difference in relativism between teachers in different academic departments?*

H₇: *There is a significant difference in the relativism of teachers in different academic departments.*

To answer RQ 7, a one-way analysis of variance (ANOVA) was conducted to examine the relationship between relativism and academic department. The independent

variable, academic department, included the eight categories listed in Table 4.3. Three categories (Fine Arts, Health & Physical Education, World Languages) had less than 10 observations each. Since unequal sample sizes may adversely affect homogeneity of variance (Grace-Martin, 2014), researchers have suggested minimum group sizes of 15 (Green & Salkind, 2011) or 20 (Hair et al., 2006). The dependent variable was relativism. Table 4.5 depicts the mean relativism and standard deviation for each academic department.

The result of the Levene's test for equality of variances indicated the homogeneity of variance assumption had not been violated ($p > .3$); despite this assurance, the results were interpreted with extreme conservatism and caution because the categories were uneven in terms of size ($M = 15.8$, $SD = 7.1$). The result of the ANOVA test was not significant, as $F(7, 118) = 0.530$, $p = .810$, and $\eta^2 = 0.030$, indicating the relationship between the two variables was weak. Three percent (η^2) of the variability in the relativism scores could be predicted based on academic department (Trusty et al., 2004).

No significant differences were found between the relativism of teachers in different academic departments. Hypothesis seven proposed the opposite result. Thus, the null hypothesis that there was no significant relationship between academic department and relativism could not be rejected (Agresti & Finlay, 2009).

Table 4.5

Relativism of Teachers (N = 126) by Academic Department

Department	<i>N</i>	<i>M</i>	<i>SD</i>
Career/Technical	25	35.64	8.95
English	17	35.47	8.53
Fine Arts	9	39.67	7.23
Health & Physical Education	9	37.00	14.04
Mathematics	24	35.92	10.29
Science	14	33.64	10.58
Social Studies	21	35.43	8.28
World Languages	7	40.00	7.02
Total	126	36.04	9.37

Research Question / Hypothesis Eight

RQ₈: *Is there a relationship between idealism and occupational commitment?*

H₈: *There is a relationship between idealism and occupational commitment.*

To answer RQ 8, a correlation analysis was conducted between the quantitative variables idealism and occupational commitment. The result of the correlation analysis was not significant, as $r = .164$, $p = .066$. Since r was less than 0.30, there was "little if any

correlation" (p. 5) between idealism and occupational commitment (Hinkle, Wiersma, & Jurs, 1979, as cited in Kotrlik & Williams, 2003). Hypothesis eight had proposed the opposite result. Thus, the null hypothesis that there was no relationship between idealism and occupational commitment could not be rejected (Agresti & Finlay, 2009).

Research Question / Hypothesis Nine

RQ₉: *Is there a relationship between relativism and occupational commitment?*

H₉: *There is a relationship between relativism and occupational commitment.*

To answer RQ 8, a correlation analysis was computed between the quantitative variables relativism and occupational commitment. The result of the correlation analysis was not significant, as $r = -.134$, $p = .135$. Since r was less than 0.30, there was "little if any correlation" (p. 5) between relativism and occupational commitment (Hinkle et al., 1979, as cited in Kotrlik & Williams, 2003). Hypothesis nine proposed the opposite result. Thus, the null hypothesis that there was no relationship between relativism and occupational commitment could not be rejected (Agresti & Finlay, 2009).

Research Question / Hypothesis Ten

RQ₁₀: *Is there a relationship between academic department and occupational commitment?*

H₁₀: *There is a relationship between academic department and occupational commitment.*

To answer RQ 10, a one-way analysis of variance (ANOVA) was conducted to examine the relationship between occupational commitment and academic department. The

independent variable, academic department, included the eight categories listed in Table 4.3. Three categories (Fine Arts, Health & Physical Education, World Languages) had less than 10 observations each. Since unequal sample sizes may adversely affect homogeneity of variance (Grace-Martin, 2014), researchers have suggested minimum group sizes of 15 (Green & Salkind, 2011) or 20 (Hair et al., 2006). The dependent variable was occupational commitment. Table 4.6 depicts the mean occupational commitment and standard deviation for each academic department.

The result of the Levene's test for equality of variances indicated the homogeneity of variance assumption had not been violated ($p > .8$); despite this assurance, the results were interpreted with extreme conservatism and caution because the categories were uneven in terms of size ($M = 15.8$, $SD = 7.1$). The result of the ANOVA test was not significant, as $F(7, 118) = 0.598$, $p = .757$, and $\eta^2 = 0.034$, indicating the relationship between the two variables was weak. Less than 4% (η^2) of the variability in the occupational commitment scores could be predicted based on academic department (Trusty et al., 2004).

No significant differences were found between the occupational commitment of teachers from different academic departments. Hypothesis ten had proposed the opposite result. Thus, the null hypothesis that there was no significant relationship between academic department and occupational commitment could not be rejected (Agresti & Finlay, 2009).

Table 4.6

Occupational Commitment of Teachers (N = 126) by Academic Department

Department	<i>N</i>	<i>M</i>	<i>SD</i>
Career/Technical	25	14.46	2.74
English	17	15.19	2.78
Fine Arts	9	14.80	2.64
Health & Physical Education	9	16.11	2.37
Mathematics	24	14.34	2.55
Science	14	14.30	2.77
Social Studies	21	14.54	3.03
World Languages	7	14.29	2.01
Total	126	14.66	2.67

Research Question / Hypothesis Eleven

RQ₁₁: *Do idealism, relativism, and/or academic department explain a significant amount of variance in the occupational commitment of North Carolina secondary school teachers?*

H_{11a}: *Academic department explains a significant amount of the variance in occupational commitment.*

H_{11b}: *Idealism explains a significant amount of the variance in occupational commitment.*

H_{11c} : *Relativism explains a significant amount of the variance in occupational commitment.*

To answer RQ 10, the results from RQ numbers six through ten were reviewed prior to multiple regression analysis. In RQ 6, the null hypothesis that there was no significant relationship between academic department and idealism could not be rejected. In RQ 7, the null hypothesis that there was no significant relationship between academic department and relativism could not be rejected. In RQ 8, the null hypothesis that there was no relationship between idealism and occupational commitment could not be rejected. In RQ 9, the null hypothesis that there was no relationship between relativism and occupational commitment could not be rejected. In RQ 10, the null hypothesis that there was no significant relationship between academic department and occupational commitment could not be rejected.

Previous analysis was not able to establish the presence of significant relationships between the variables intended for use in multiple regression analysis. Therefore, the variables were not suited for inclusion in a multiple regression analysis. Consequently, none of the null hypotheses proposed for research question 11 could be rejected. More specifically, the null hypothesis that academic department did not explain a significant amount of the variance in occupational commitment could not be rejected; the null hypothesis that academic idealism did not explain a significant amount of the variance in occupational commitment could not be rejected; the null hypothesis that relativism did not explain a significant amount of the variance in occupational commitment could not be rejected.

Summary

Suitable information for statistical analysis was received from 126 North Carolina secondary school teachers. Eleven research questions and eight associated hypotheses were examined. No significant relationships were found between idealism or relativism and academic department, between idealism or relativism and occupational commitment, or between academic department and occupational commitment.

CHAPTER 5

Conclusions

Previous chapters presented the theoretical foundation, methods, and results from the present study of public secondary school teachers in North Carolina. The study examined the impact of teachers' idealism and relativism on their occupational commitment. In this final chapter conclusions drawn from the study's results are discussed, as are the contributions of the study to the research literature and practice, the study's contributions to theory, its limitations, and opportunities for future research based on the study findings. This chapter begins with a restatement of each research question and related hypotheses. The findings, conclusions, and comparison to previous research are presented with each research question. When appropriate, *t*-tests were used in the comparison of current results to previous studies. The additional comparisons were used to uncover more information about North Carolina secondary teachers and their ethical beliefs. Following the findings and conclusions a discussion of the study's implications for research and practice is presented. A discussion of the study's limitations and recommendations for future research completes the study.

Research Question One

What are the demographics (age, ethnicity, gender, tenure) of North Carolina secondary school teachers?

The sample consisted of 126 public secondary school teachers in North Carolina. Respondents were surveyed to provide information about their age, ethnicity, gender, and

tenure (years of experience in teaching). In the sample, approximately 62% of the teachers were female; 96% of the teachers were white. The mean age of respondent teachers was approximately 41 years with a mean tenure of approximately 12.2 years.

According to the North Carolina Department of Public Instruction (n.d.), there were over 27,000 secondary school teachers in North Carolina during the 2012-2013 school year. Approximately 64% of all teachers were female; approximately 80% of teachers were white. The mean age of secondary teachers was 42 years with a mean tenure of approximately 13.5 years (K. Elander, personal communication, 02/14/2014). The study's sample reflected the overall secondary teacher population in North Carolina in terms of age, tenure, and gender. The sample did have a higher proportion of white teachers than the general secondary teacher population in North Carolina (96% in the sample compared to 80% in the general teacher population). In summation, the sample used in the study was similar to the North Carolina secondary teacher population.

The sampling method used in the present study was a combination of purposive and random sampling. An initial list of school districts was selected in a purposeful manner in order to obtain a sample representative of the population in terms of location and socioeconomic status. Five school districts agreed to participate in the study. Within each district, secondary schools were selected at random. Teachers within the randomly selected schools were contacted by email and asked to participate by completing an online survey. Because the sampling method was not purely random, the sampling model of generalization as suggested by Trochim (2006) was not applicable.

Despite the fact the study sample was not obtained in a purely random fashion, the results were still generalizable to the population of public secondary school teachers in North Carolina. This conclusion was supported by the use of Donald Campbell's model of proximal similarity (Campbell, 1986; Trochim, 2006) because the sample was more similar to the population than not, and because the contexts of the sample and the population were also similar. In conclusion, the sample used in the study was representative of the population.

Research Question Two

Which academic department best fits NC secondary school teachers' work assignments?

Respondents were surveyed to provide information about the academic department which best fit their work assignment. In the study, academic department was defined as teacher groupings organized by academic subjects (Siskin, 1991). The terms academic department, academic subject, and academic discipline were used interchangeably in the study.

Secondary schools have long been organized primarily by academic subject and not by student grade level (Grossman & Stodolsky, 1995; Siskin, 1991). In North Carolina, secondary school teachers are licensed primarily by academic subject (Department of Public Instruction, n.d.) rather than grade level. The eight categories of the variable academic department were based on North Carolina high school graduation requirements (Department of Public Instruction, n.d.). As Table 5.1 shows, all eight academic departments were

represented. Although the sampling process was not truly random, the resulting sample represented all categories of academic department. In conclusion, the academic subjects used in the sample were representative of the academic subject categories that were created based on NCDPI requirements.

Table 5.1

Academic Department of Survey Respondents (N = 126)

Department	Frequency	Percentage
Career / Technical	25	19.8
English	17	13.5
Fine Arts	9	7.1
Health & Physical Education	9	7.1
Mathematics	24	19.0
Science	14	11.1
Social Studies	21	16.7
World Languages	7	5.6

Research Question Three

How do NC secondary school teachers score on the EPQ idealism scale?

Respondents were surveyed to provide information about their level of idealism. In the study, idealism was defined as "the extent to which an individual believes that desirable

consequences can be brought about without violating moral guidelines" (Shaub et al., 1993, p. 148). Nine items from the Ethical Position Questionnaire (EPQ, Forsyth, 1980) were used to measure respondents' level of idealism. Respondents' scores were calculated by summing their responses to the nine items. The maximum possible score was 63 (nine items with a 7 step Likert scale). On a scale from 7 to 63, the mean idealism for the sample ($N = 126$) was 47.51 ($SD = 7.74$).

The results of the present study were compared to previous research on levels of idealism. Table 5.2 summarizes the results from three previous studies; the results listed in the table were converted to the scale used in the study (maximum score = 63). In Deering and coworkers' research with teachers (1994, 1998), only the mean idealism was reported; no information was given on standard deviation. The information on mean idealism scores in Forsyth et al. (2008) was obtained through a meta-analysis of studies conducted with the EPQ. To be included in the meta-analysis, studies must have included at least six of the ten original items from the EPQ idealism scale. Forsyth and coworkers recoded the study's results into a common metric where idealism means ranged from zero to one (2008, p. 820).

The mean idealism of North Carolina secondary teachers ($M = 47.51$) was consistent with reported levels of idealism for experienced teachers in the Midwestern United States (Table 5.2). A one-sample t -test was used to compare the idealism of North Carolina teachers with the experienced teachers in the Deering et al. (1994) study. Since the mean tenure of teachers in the study was 12.2 years, the two samples were similar, justifying the comparison. The result of the t -test, $t(125) = 0.519$, $p > .6$, supported the conclusion that

Table 5.2

Results from Previous Research on Idealism of Various Populations

Study	Population	Region	k^*	N	M	SD
Deering et al. (1994)	Preservice teachers	Midwest		20	46.38	n/a
	Experienced teachers	Midwest		22	47.15	n/a
	Business Majors	Midwest		24	40.75	n/a
Deering (1988)	Preservice teachers	U.S.A.		38	46.82	n/a
	Preservice teachers	Britain		27	49.47	n/a
Forsyth et al. (2008)	U.S.A	East	27	6,699	44.86	6.17
	U.S.A.	Mixed	32	8,235	45.23	3.09
	U.S.A.	West	14	3,197	46.68	3.15
	Grand Mean	World	139	30,230	45.86	4.98

Note. Results adapted to present study scale (63 = maximum score). * k = number of samples

North Carolina teachers' level of idealism was consistent with previous research as there was no significant difference between the mean idealism of the two groups.

One-sample t -tests were also used to compare the idealism of North Carolina secondary teachers with the general population of the United States and with the mean idealism and relativism levels of 29 nations (Forsyth et al., 2008). Forsyth et al. (2008) reported three sets of results for the United States; the mean idealism for the U.S. mixed studies (see Table 5.2) was chosen as the test value because this group of studies included the

largest number of samples ($k = 32$) and the largest overall sample ($N = 8,235$). The result of the one-sample t -test, $t(125) = 3.305$, $p = 0.001$, suggested North Carolina secondary teachers were more idealistic than the general United States population but an effect size calculation indicated the practical significance of the difference was small ($d = 0.29$) (Green & Salkind, 2011). The result of the one-sample t -test, $t(125) = 2.391$, $p < 0.02$, suggested North Carolina secondary teachers were more idealistic than the world population; once again, the practical significance of the difference was small ($d = 0.21$). The present study was in agreement with Deering et al. (1994): teachers have higher levels of idealism than the general population.

In comparing results from their study to national norms, Deering et al. (1994) determined preservice and experienced teachers had significantly higher levels of idealism than business majors. In considering the ethics of teachers, Deering (1998) wrote:

...the results of the survey lend support to an earlier study suggesting that education students tend to be idealistic (Deering *et al.*, 1994). These results, moreover, are in keeping with characteristics associated with teachers, including (1) a sense of public service, and (2) a high level of public trust (Gorwin, 1965; Rosenholtz, 1989; Howsam et al., 1976). Given these characteristics, the influential nature of their job and the fact that teachers work in a public, not-for-profit environment, it is not surprising that teachers tend to be idealistic. (p. 357)

Although his meaning of idealist was not equivalent to Forsyth's definition of idealism (Forsyth, 1980), Dr. David Keirse's description of idealists helped to illuminate the reasons

that teachers are idealistic. Dr. Keirse described idealists as "highly ethical in their actions, Idealists hold themselves to a strict standard of integrity" (Keirse, "Portrait of an Idealist," para. 4). According to Dr. Keirse, teachers were a subset of the idealist temperament, being able to "look for the best in their students, and communicate clearly that each one has untold potential, and this confidence can inspire their students to grow and develop more than they ever thought possible" (Keirse, "Portrait of the Teacher," para. 1).

Previous research with the EPQ (Ballantine & McCourt, 2011; Forsyth, 1980; Forsyth, 1981; Forsyth et al., 1988) demonstrated no significant difference in idealism between genders. In the present study, male secondary teachers had a mean idealism score of 46.42 ($SD = 8.06$) and female secondary teachers had a mean idealism score of 48.31 ($SD = 7.46$). An independent samples *t*-test was conducted with gender as the grouping variable. The result of the independent samples *t*-test, $t(94.08) = -1.615$, $p > 0.19$, supported the conclusion that there was no significant difference between the idealism of male and female secondary North Carolina teachers. This result was in agreement with previous gender research such as Ballantine and McCourt (2011) that used the EPQ.

In summary, the idealism of North Carolina secondary teachers was consistent with previous research on the idealism of experienced teachers (Deering et al., 1994), with previous research on national and international idealism (Forsyth, 2008), and with previous research on gender differences in idealism (Ballantine & McCourt, 2011; Forsyth, 1980; Forsyth, 1981; Forsyth et al., 1988). Teachers were idealistic; male and female teachers were essentially the same in terms of idealism. The idealism of secondary teachers in North

Carolina was significantly higher than the idealism of the general population of the U.S., and significantly higher than the mean idealism of 29 nations.

Why were North Carolina secondary teachers idealistic, and potentially more idealistic than the general population? The explanation lies in the nature of education as a career choice and its related work environment. Secondary teachers are public servants that have chosen to serve by working with young adults who are maturing emotionally, physically, and mentally. Secondary teachers work in an environment which is not profit-driven and where they have the potential to touch the future through their work with students. Such an environment surely requires a long-term participant to hold fast to their ideals (moral guidelines) as they traverse the complicated reality that is modern day public education. Explanations similar to this have been posited for decades. As an example, consider the answer to "whom would you call the perfect teacher?" by Jiddu Krishnamurti in 1948:

The perfect teacher, surely, is one who does not ask anything for himself, who is not caught up in politics, in power, in position; he does not ask anything for himself, because inwardly he is rich.... Surely, the teacher is not merely the giver of information; the teacher is one who points the way to wisdom. (Krishnamurti, 2000, para. 17, 19)

Research Question Four

How do NC secondary school teachers score on the EPQ relativism scale?

Respondents were surveyed to provide information about their level of relativism. In the present study, relativism was defined as "the rejection of absolute moral rules to guide behavior" (Shaub et al., 1993, p. 148). Nine items from the Ethical Position Questionnaire were used to measure respondents' level of relativism. Respondents' scores were calculated by summing their responses to the nine items. The maximum possible score was 63 (nine items with a 7 step Likert scale). The mean relativism score of the sample was 36.04 ($SD = 9.37$).

The results of the present study were compared to previous research on levels of relativism. Table 5.3 summarizes the results from three previous studies; the results listed in the table were converted to the scale used in the study (maximum score = 63). In Deering and coworkers' work with teachers (1994, 1998), only the mean relativism was reported; no information was given on standard deviation. The information on mean relativism scores in Forsyth et al. (2008) was obtained through a meta-analysis of studies conducted with the EPQ. To be included in the meta-analysis, studies must have included at least six of the ten original items from the EPQ idealism scale. Results were recoded into a common metric where relativism means would range from zero to one by Forsyth and coworkers (2008, p. 820).

The mean relativism of North Carolina secondary teachers ($M = 36.04$) was consistent with reported levels of relativism for experienced teachers in the Midwestern United States. A one-sample t -test was used to compare the relativism of North Carolina teachers with the experienced teachers in the Deering et al. (1994) study. Since the mean

Table 5.3

Results from Previous Research on Relativism of Various Populations

Study	Population	Region	k^*	N	M	SD
Deering et al. (1994)	Preservice teachers	Midwest		20	32.38	n/a
	Experienced teachers	Midwest		22	34.90	n/a
	Business Majors	Midwest		24	40.16	n/a
Deering (1988)	Preservice teachers	U.S.A.		38	35.24	n/a
	Preservice teachers	Britain		27	44.00	n/a
Forsyth et al. (2008)	U.S.A.	East	27	6,699	36.35	4.85
	U.S.A.	Mixed	32	8,235	34.46	3.91
	U.S.A.	West	14	3,197	39.44	2.77
	Grand Mean	World	139	30,230	36.92	4.79

Note. Results adapted to present study scale (63 = maximum score). * k = number of samples

tenure of teachers in the study was 12.2 years, the two samples were similar, justifying the comparison. The result of the t -test, $t(125) = 1.365, p > .15$, supported the conclusion that North Carolina teachers' level of relativism was consistent with previous research as there was no significant difference between the mean relativism of the two groups.

One-sample t -tests were used to compare the relativism of North Carolina teachers with the general population of the United States with the mean idealism and relativism levels of 29 nations (Forsyth et al., 2008). Forsyth et al. (2008) reported three sets of results for the

United States; the mean relativism for the U.S. mixed studies was chosen as the test value because it included the largest number of samples ($k = 32$) and the largest overall sample ($N = 8,235$). The result of the one-sample t -test, $t(125) = 1.365$, $p > .17$, supported the conclusion that North Carolina teachers were not significantly different from the general United States population in terms of relativism. The result of the t -test, $t(125) = 1.893$, $p > .06$, supported the conclusion that North Carolina secondary teachers were also not significantly different from the world population in terms of relativism. Deering et al. (1994) determined preservice and experienced teachers had significantly lower levels of relativism than business majors. The results of the present study contradicted the results of Deering et al. (1994). However, business majors should not be considered as a general population because of the small sample size ($N = 24$) and specificity of the sample.

Previous research with the EPQ (Ballantine & McCourt, 2011; Forsyth, 1980; Forsyth, 1981; Forsyth et al., 1988) demonstrated no significant difference in relativism between genders. In the present study, male secondary teachers had a mean relativism score of 37.50 ($SD = 9.60$) and female secondary teachers had a mean relativism score of 35.08 ($SD = 9.22$). An independent samples t -test was conducted with gender as the grouping variable. The result of the independent samples t -test, $t(96.80) = 1.393$, $p > .16$, supported the conclusion that there was no significant difference between the relativism of male and female secondary North Carolina teachers. This result was in agreement with previous gender research using the EPQ such as Ballantine and McCourt (2011).

In Deering's research on British and American preservice teachers (1998), Deering did not perform an analysis to determine if preservice teachers were significantly different in terms of relativism and idealism. Only the mean idealism and relativism were reported; no information was given on standard deviation. However, Deering noted British preservice teachers had significantly higher levels of relativism than American preservice teachers, and visual examination of the reported results suggested there would be a significant difference in the idealism and relativism of American and British preservice teachers. To test this hypothesis, a paired-sample *t*-test was performed to determine if there was a significant difference in the idealism and relativism of North Carolina teachers in the present study (idealism $M = 47.51$, $SD = 7.74$). The results of the *t*-test, $t(125) = 10.313$, $p < .001$, supported the conclusion that teachers were significantly more idealistic than relativistic. The effect size, $d = 0.919$, indicated the difference in teachers' levels of idealism and relativism was not only statistically significant, but also practically significant (Green & Salkind, 2011). Teachers were more likely to believe desirable consequences would be obtained by following set guidelines than to believe absolute moral rules did not exist.

In summary, the relativism of North Carolina secondary teachers was consistent with previous research on the relativism of experienced teachers (Deering et al., 1994), with previous research on national and international relativism (Forsyth, 2008), and with previous research on gender differences in relativism (Ballantine & McCourt, 2011; Forsyth, 1980; Forsyth, 1981; Forsyth et al., 1988). Teachers were significantly less relativistic than idealistic; male and female teachers were essentially the same in terms of relativism; the

relativism of teachers was similar to the relativism of the U.S. and to the mean relativism of 29 nations.

Why were North Carolina secondary teachers significantly (and practically) more idealistic than relativistic? The explanation once again lies in the nature of education as a career choice and its related work environment. Secondary teachers are public servants that have chosen to serve by working with young adults who are maturing emotionally, physically, and mentally. Secondary teachers work in an environment which is not profit-driven and where they have the potential to touch the future through their work with students. Such an environment surely requires a long-term participant to hold fast to their ideals (moral guidelines) as they traverse the complicated reality that is modern day public education. Relativism, with its rejection of moral rules as guides to behavior (Shaub et al., 1993, p. 148) is antithetical to the idealism that seems to be a persistent underpinning of educators and the educational environment.

Research Question Five

How do NC secondary school teachers score on the OCS scale?

Respondents were surveyed to provide information about their level of occupational commitment to the teaching profession. In the study, occupational commitment was defined "as a psychological link between a person and his or her occupation" (Lee et al., 2000, p. 800). The occupational commitment scale (OCS, Meyer et al., 1993) measured three components of occupational commitment: affective (6 items), continuance (6 items), and

normative (6 items). Meyer et al. (1993) defined affective occupational commitment as "a strong desire to remain in the occupation" (p. 540); continuance occupational commitment as recognizing the presence of "high costs associated with leaving the occupation" (p. 540); and normative occupational commitment as having "a sense of obligation" (p. 540) to remain in the profession. In the present study, the individual components of occupational commitment were not examined; rather, a cumulative level of occupational commitment was measured. All eighteen items from the OCS were used to measure respondents' level of occupational commitment to teaching. Respondents' scores were calculated by summing the mean of their responses to each component. The maximum possible score was 21 (three components with a 7 step Likert scale). The mean occupational commitment was 14.66 ($SD = 2.67$).

Occupational commitment of teachers was measured in previous studies and then compared to multiple variables, including burnout (Brown & Roloff, 2011), efficacy (Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, 2012; Ware & Kitsantas, 2011), job satisfaction (Billingsley & Cross, 1992; Canrinus et al., 2012), participation in decision making and organizational citizenship behavior (Somech & Bogler, 2002), school climate and social-emotional learning (Collie, Shapka, & Perry, 2011), and stress (Billingsley & Cross, 1992; Jepson & Forrest, 2006). Additionally, Huang and Waxman (2009) examined the relationship between school environment and the commitment to teaching of student teachers. Of the cited studies, only Canrinus et al. (2012) used Meyer's et al. (1993) occupational commitment scale to measure teacher commitment. In that study, occupational commitment was one of several variables involved in structural equation modeling; separate descriptive values of teachers' occupational commitment were not reported. Consequently, it

was not possible to directly compare results from the present study to previous research. The only conclusion that was possible to draw from the present study was that secondary teachers in North Carolina were not strongly committed to the profession of teaching; this conclusion was reached through a one-sample t -test where the test value was taken to 14, the midpoint of the response scale. The result of the one-sample t -test, $t(125) = 2.790, p < .01$, indicated the mean commitment of North Carolina secondary teachers was significantly higher than the midpoint of the OCS scale. Although the difference was statistically significant ($p < .01$), the practical significance of the difference was negligible because of the small effect size ($d = 0.25$). According to Green & Salkind (2011), " d values of .2, .5, and .8, regardless of sign, are by convention interpreted as small, medium, and large effect sizes, respectively" (p. 165).

In summary, North Carolina secondary teachers were not strongly committed to the occupation of teaching. This relatively low occupational commitment may be due, in part, to recent educational reforms being pushed by North Carolina legislators (Helms, 2013; Imig & Smith, 2013) and by other external factors such as the recent economic recession (National Bureau of Economic Research, 2010) and North Carolina's historically low teacher salaries (Dalesio, 2013).

Research Question Six

RQ₆: Is there a significant difference in idealism between teachers in different academic departments?

H₆: There is a significant difference in the idealism of teachers in different academic departments.

A one-way analysis of variance (ANOVA) was conducted to examine the relationship between idealism and academic department. The independent variable, academic department, included the eight categories listed in Table 5.1; the dependent variable was idealism. The result of the ANOVA was not significant, as $F(7, 118) = 1.427, p = 0.201$, and the $\eta^2 = .078$, indicating the relationship between the two variables was weak. Less than 8% (η^2) of the variability in the idealism scores could be predicted based on academic department (Trusty, Thompson, & Petrocelli, 2004). No significant differences were found between the idealism of teachers in different academic departments. Hypothesis six proposed the opposite result. Thus, the null hypothesis that there was no significant relationship between academic department and idealism could not be rejected (Agresti & Finlay, 2009). The academic department to which North Carolina secondary teachers belonged was not related to their level of idealism.

Previous research with teachers suggested teacher beliefs differed by academic subject (deBrabander, 1993; Grossman & Stodolsky, 1995; Stodolsky & Grossman, 1995). The deBrabander study (1993) questioned teachers about all subjects rather than focusing on the subject taught by each teacher. In addition, deBrabander studied the difference between teachers who taught at different educational levels (i.e.; primary versus secondary) rather than the differences between teachers of different subjects. These two disparities in methodology made it difficult to compare the present study to deBrabander's work. In the Grossman and Stodolsky research, the beliefs under study were directly related to subject matter in terms of course sequencing, flexibility in terms of course content, and whether or not a subject was static or dynamic in terms of new knowledge development. Neither the

deBrabander study nor the Grossman and Stodolsky studies explored teacher beliefs in terms of personal moral philosophy (another term for ethical orientation). Consequently, it was not possible to directly compare results from the present study to previous research.

Previous research showed the organization of high schools by academic subject created a set of subcultures within the larger school context (Grossman & Stodolsky, 1995; Siskin, 1991). The presence of a subculture has been shown to impact teacher beliefs about curriculum (Stodolsky and Grossman, 1995), resistance to school reforms (Siskin, 1997; Timperley & Robinson, 2000), and computer use and adoption (Goodson & Mangan, 1995; John & LaVelle, 2004; Selwyn, 1999). In the present study, there was no significant difference in the idealism of teachers from different academic departments. The lack of significant difference in idealism levels between academic departments did not support the construct of secondary subculture and in fact suggested North Carolina secondary teachers were largely homogeneous in their level of idealism. In conclusion, North Carolina teachers represented a homogeneous population in terms of idealism and idealism was not a construct of secondary teachers' subculture.

Research Question Seven

RQ₇: Is there a significant difference in relativism between teachers in different academic departments?

H₇: There is a significant difference in the relativism of teachers in different academic departments.

A one-way analysis of variance (ANOVA) was conducted to examine the relationship between relativism and academic department. The independent variable, academic department, included the eight categories listed in Table 5.1; the dependent variable was relativism. The result of the ANOVA was not significant, as $F(7, 118) = 0.530$, $p = 0.810$, and $\eta^2 = 0.030$, indicating the relationship between the two variables was weak. Three percent (η^2) of the variability in the relativism scores could be predicted based on academic department (Trusty, Thompson, & Petrocelli, 2004). No significant differences were found between the relativism of teachers in different academic departments. Hypothesis seven proposed the opposite result. Thus, the null hypothesis that there was no significant relationship between academic department and relativism could not be rejected (Agresti & Finlay, 2009).

Previous research with teachers has suggested teacher beliefs differ by academic subject (deBrabander, 1993; Grossman & Stodolsky, 1995; Stodolsky & Grossman, 1995). The deBrabander study (1993) questioned teachers about all subjects rather than focusing on the subject they taught. In addition, deBrabander was looking at the difference between teachers at different educational levels (i.e.; primary versus secondary) rather than at the differences between teachers of different subjects. These two disparities in methods made it difficult to compare the present study to deBrabander's work. In Grossman and Stodolsky's research, the beliefs under study were directly related to subject matter in terms of course sequencing, flexibility in terms of course content, and whether or not a subject was static or dynamic in terms of new knowledge development. Neither the deBrabander study nor the Grossman and Stodolsky studies explored teacher beliefs in terms of personal moral

philosophy (another term for ethical orientation). Consequently, it was not possible to directly compare results from the present study to previous research.

Other previous research showed the organization of high schools by academic subject created a set of subcultures within the larger school context (Grossman & Stodolsky, 1995; Siskin, 1991). The presence of a subculture was shown to impact teacher beliefs about curriculum (Stodolsky and Grossman, 1995), resistance to school reforms (Siskin, 1997; Timperley & Robinson, 2000), and computer use and adoption (Goodson & Mangan, 1995; John & LaVelle, 2004; Selwyn, 1999). In the present study, there was no significant difference in the relativism of teachers from different academic departments. The lack of significant difference in levels of relativism between academic departments did not support the construct of secondary subculture and in fact suggested that secondary teachers were largely homogeneous in their levels of relativism. In conclusion, North Carolina teachers represented a homogeneous population in terms of relativism, and relativism was not a construct of secondary subculture.

Research Question Eight

RQ₈: *Is there a relationship between idealism and occupational commitment?*

H₈: *There is a relationship between idealism and occupational commitment.*

A correlation analysis was conducted between the quantitative variables idealism and occupational commitment. The result of the correlation analysis was not significant, as $r = .164, p = .066$. Since r was less than 0.30, there was "little if any correlation" (p. 5) between

idealism and occupational commitment (Hinkle, Wiersma, & Jurs, 1979, as cited in Kotrlik & Williams, 2003). Hypothesis eight proposed the opposite result. Thus, the null hypothesis that there was no relationship between idealism and occupational commitment could not be rejected (Agresti & Finlay, 2009).

There have been few research studies which focused on the relationship between occupational commitment and idealism. Shaub, et al. (1993) found a positive correlation between idealism and professional (occupational) commitment ($r = .230, p < 0.001$); although positive, the magnitude of r suggests "little if any correlation" (p. 5) between the variables (Hinkle et al., 1979, as cited in Kotrlik & Williams, 2003), indicating low practical significance to the correlation. The present study also showed a positive, although not significant, correlation between idealism and occupational commitment ($r = .164, p = .066$). The results of the present study do not refute Shaub et al.; because the association in the present study was not significant, the results also do not support the research findings by Shaub et al. To summarize, idealism was not related to occupational commitment.

If occupational commitment represents a "psychological link between a person and his or her occupation" (Lee et al., 2000, p. 800) why wouldn't idealism be more strongly associated with occupational commitment for North Carolina secondary teachers? Occupational commitment, as shown through the work by Meyer et al. (1993) consists of three primary constructs: affective, normative, and continuance. In the development of the OCS (Meyer et al, 1993) and in a later development of a general model of workplace commitment (Meyer & Herscovitch, 2001), Meyer and coworkers suggested that the relative

contribution of each commitment construct would be dependent on the individual under examination. Meyer and Herscovitch (2000) provided the following explanation of this idea:

Individuals who are committed primarily out of desire [affective] might have a stronger inclination to follow through on their commitment than those who are committed primarily out of obligation [normative] or to avoid costs [continuance]. Those who are committed primarily to avoid costs might be particularly inclined to find ways to get out of their commitment. (p. 312-313)

North Carolina secondary teachers were idealistic in general, and potentially more idealistic than the general population. Idealism, which represents an individual's level of belief that following moral rules provides correct results, would most neatly fit under the umbrella of normative commitment. Under the reasoning proffered by Meyer and Herscovitch (2000), normative occupational commitment would seem to contribute less to overall occupational commitment than affective occupational commitment. In addition, the uncertain nature of education in North Carolina (Helms, 2013; Imig & Smith, 2013) might have lowered secondary teachers' level of continuance occupational commitment.

Research Question Nine

RQ₉: *Is there a relationship between relativism and occupational commitment?*

H₉: *There is a relationship between relativism and occupational commitment.*

A correlation analysis was computed between the quantitative variables relativism and occupational commitment. The result of the correlation analysis was not significant, as

$r = -.134, p = .135$. Since $|r|$ was less than 0.30, there was "little if any correlation" (p. 5) between relativism and occupational commitment (Hinkle, as cited in Kotrlik & Williams, 2003). Hypothesis nine proposed the opposite result. Thus, the null hypothesis that there was no relationship between relativism and occupational commitment could not be rejected (Agresti & Finlay, 2009).

There have been few research studies which focused on the relationship between occupational commitment and relativism. Shaub, et al., (1993) found a negative correlation between relativism and professional (occupational) commitment ($r = -.246, p < 0.001$); the magnitude of r suggests "little if any correlation" (p. 5) between the variables (Hinkle et al., 1979, as cited in Kotrlik & Williams, 2003), indicating low practical significance to the correlation. The present study also showed a negative, although not significant, correlation between relativism and occupational commitment ($r = -.134, p = .135$). The results of the present study do not refute Shaub et al.; because the association in the present study was not significant, the results also do not support the research findings by Shaub et al. In summary, relativism was not related to occupational commitment.

Why wasn't relativism more strongly related to occupational commitment, and why was the apparent association negative? North Carolina secondary teachers demonstrated similar levels of relativism as the general population and were significantly (and practically) less relativistic than idealistic. Relativism, which represents an individual's belief that absolute moral rules do not have to guide behavior, does not fit neatly under any of the three occupational commitment constructs: affective, normative, and continuance. However, since

relativism is the antithesis of idealism, the negative correlation between relativism and occupational commitment was a reasonable expectation since the correlation between idealism and occupational commitment was positive. As the association between idealism and occupational commitment was neither statistically nor practically significant ($r = .164, p = .066$), the sample's association between relativism and occupational commitment ($r = -.134, p = .135$) was not unreasonable.

Research Question Ten

RQ₁₀: *Is there a relationship between academic department and occupational commitment?*

H₁₀: *There is a relationship between academic department and occupational commitment.*

A one-way analysis of variance (ANOVA) was conducted to examine the relationship between occupational commitment and academic department. The independent variable, academic department, included the eight categories listed in Table 5.1; the dependent variable was occupational commitment. The result of the ANOVA was not significant, as $F(7, 118) = 0.598, p = .757$, and $\eta^2 = .034$, indicating the relationship between the two variables was weak. Less than 4% (η^2) of the variability in the occupational commitment scores could be predicted based on academic department (Trusty, Thompson, & Petrocelli, 2004). No significant differences were found between the occupational commitments of teachers from different academic departments. Hypothesis ten proposed the opposite result. Thus, the null hypothesis that there was no significant relationship between academic department and occupational commitment could not be rejected (Agresti & Finlay, 2009).

Previous research suggested the organization of high schools by academic subject created a set of subcultures within the larger school context (Grossman & Stodolsky, 1995; Siskin, 1991). The presence of a subculture has been shown to impact teacher beliefs about curriculum (Stodolsky and Grossman, 1995), resistance to school reforms (Siskin, 1997; Timperley & Robinson, 2000), and computer use and adoption (Goodson & Mangan, 1995; John & LaVelle, 2004; Selwyn, 1999). In the present study, there was no significant difference in the occupational commitment of teachers from different academic departments. The lack of significant difference in levels of occupational commitment did not support the construct of secondary subculture and in fact suggested that secondary teachers were largely homogeneous in their level of occupational commitment. The results of research question ten were consistent with the results of research questions six and seven; that is, secondary teachers in North Carolina showed consistent levels of idealism, relativism, and occupational commitment across academic disciplines. These results supported the conclusion that secondary teachers in North Carolina represented a homogeneous population in terms of ethical orientation and commitment to the occupation of teaching.

Research Question Eleven

RQ₁₁: Do idealism, relativism, and/or academic department explain a significant amount of variance in the occupational commitment of North Carolina secondary school teachers?

H_{11a}: Academic department explains a significant amount of the variance in occupational commitment.

H_{11b}: *Idealism explains a significant amount of the variance in occupational commitment.*

H_{11c}: *Relativism explains a significant amount of the variance in occupational commitment.*

The results from RQ numbers six through ten were reviewed prior to multiple regression analysis. In RQ 6, the null hypothesis that there was no significant relationship between academic department and idealism could not be rejected. In RQ 7, the null hypothesis that there was no significant relationship between academic department and relativism could not be rejected. In RQ 8, the null hypothesis that there was no relationship between idealism and occupational commitment could not be rejected. In RQ 9, the null hypothesis that there was no relationship between relativism and occupational commitment could not be rejected. In RQ 10, the null hypothesis that there was no significant relationship between academic department and occupational commitment could not be rejected.

Previous analysis was not able to establish the presence of significant relationships between the variables intended for use in multiple regression analysis. Therefore, the variables were not suited for inclusion in a multiple regression analysis. Consequently, none of the null hypotheses proposed for research question 11 could be rejected. More specifically, the null hypothesis that academic department did not explain a significant amount of the variance in occupational commitment could not be rejected; the null hypothesis that academic idealism did not explain a significant amount of the variance in occupational commitment could not be rejected; the null hypothesis that relativism did not explain a significant amount of the variance in occupational commitment could not be

rejected. In conclusion, there is no relationship between the variables of idealism, relativism, academic department, and occupational commitment for North Carolina secondary teachers.

Implications for Research

The results from the present study have implications for research in the disciplines of ethics, education and occupational commitment. More specifically, results are relevant to the areas of secondary teacher subculture, ethical orientation, ethics of teachers, occupational commitment of teachers, and research on occupational commitment and ethical orientation. Each implication is discussed.

Secondary Teacher Subculture

The results from the present study indicated secondary teachers in North Carolina had consistent levels of idealism and relativism across the academic disciplines. No significant difference was detected in the levels of idealism or relativism of teachers in different academic departments. As a whole, the study sample was homogeneous in terms of ethical beliefs. This homogeneity stands in contrast to previous research suggesting secondary teachers' beliefs, attitudes, and behaviors differ according to their academic department (Goodson & Mangan, 1995; Grossman & Stodolsky, 1995; John & LaVelle, 2004; Selwyn, 1999; Siskin, 1991; Siskin, 1994; Siskin, 1997; Stodolsky & Grossman, 1995; Timperley & Robinson, 2000). Deering et al. (1994) also found teachers to be homogeneous in terms of ethical beliefs. Previous research, however, has focused on teacher beliefs directly related to their subjects and not on the underlying ethical beliefs of the teachers. The results from the

present study suggested, therefore, that secondary subcultures are formed primarily on differences in teachers' subject matter with less influence from the personal beliefs or values of the teachers. Future research on the topic of secondary teacher subculture must take this distinction between subject-related beliefs and ethical beliefs into account when designing a study or interpreting study results. In addition, the relationship between a teacher's beliefs about his/her subject and his/her ethical beliefs offers a new direction for research as investigators examine the formation and structure of secondary teacher subculture.

Ethical Orientation

The results from the present study contributes to the growing field of ethical orientation research by adding additional information on the ethical orientation of secondary teachers and on gender difference in ethical orientation. As with most research in the field (Forsyth et al., 2008) the present study used the variables of idealism and relativism in a descriptive manner. Teachers were not classified according to Forsyth's taxonomy (1980); levels of idealism and relativism were used solely as descriptive variables. Deering and coworkers (1994, 1998) also used idealism and relativism as descriptive variables in their studies of preservice and experienced teachers. The mean levels of idealism and relativism for North Carolina secondary teachers showed no significant difference when compared to the mean levels of idealism and relativism of experienced Midwestern teachers (Deering et al., 1998). Previous work by Forsyth and other researchers (Ballantine & McCourt, 2011; Forsyth, 1980; Forsyth, 1981; Forsyth et al., 1988) found no significant differences between the genders in terms of ethical orientation. The results from the present study also

demonstrated no significant difference between the mean levels of idealism and relativism for males and females.

Individuals with high levels of idealism tend to be absolutists or situationists. In either category, these types of individuals believe moral principles exist; the difference arises in whether or not an individual believes moral principles must be considered in conjunction with the context of the situation (absolutist = no, situationist = yes). North Carolina teachers demonstrated higher levels of idealism than the general U.S. population and had significantly higher levels of idealism than relativism. The present study, in agreement with previous research (Deering et al., 1994; Deering, 1998), determined teachers exhibit high levels of idealism and are most likely to be categorized as absolutists or situationists. However, the meta-analysis by Forsyth et al. (2008) suggested the general U.S. population straddled the line between situationist and subjectivist (Figure 1, p. 823). Taken together with previous research, the results from the present study suggested North Carolina teachers are potentially dissimilar to the general U.S. population, a position supported by Keirse's definition of an idealist-teacher (Keirse, n.d.).

The following conclusions were drawn from the present study: (a) male and female teachers have similar levels of idealism and relativism, (b) teachers are significantly more idealistic than they are relativistic, (c) teachers are more idealistic than the general population, and (d) teachers are similar to the general population in terms of relativism. The present study confirmed conclusions drawn from previous research in terms of gender differences and teachers' ethical beliefs. In addition, the findings from the present study

suggested the ethical typology of North Carolina teachers was dissimilar to the ethical typology of the general U.S. population. In the future, researchers interested in using ethical orientation as a variable in their research will have less concern about potential gender-based bias in study results. On the other hand, the possible existence of population subgroups with different levels of idealism and/or relativism must be considered.

Ethics of Teaching and Teachers

There has been little to no empirical research on the ethics of teaching or on the ethical teacher. However, there is general agreement in the published literature that teaching is a profession where ethics is of high importance (Alexander, 2005; Atjonen, 2012; Beyer, 1997; Block, 2008; Buzzelli & Johnston, 2001; Campbell, 1997; Campbell, 2000; Campbell, 2003; Hamberger & Moore, 1997; Goodlad, Soder, & Sirotnik, 1990; Liston & Zeichner, 1987; Osguthorpe, 2008; Pakkari & Valimaa, 2013; Sanger, 2008; Sileo, Sileo, & Pierce, 2008; Weissbourd, 2003). Deering and coworkers measured the levels of idealism and relativism of preservice British and American teachers (1998) and of American preservice teachers, experienced teachers, and college business majors. The present study contributed to the literature by offering empirical research on the idealism and relativism of experienced teachers, specifically secondary teachers in North Carolina which was a population that had not been previously researched.

Occupational Commitment of Teachers

The present study contributed to the research on the occupational commitment of teachers by offering distinct empirical data on the occupational commitment of North Carolina secondary teachers. Previous research focused on exploring the relationships between occupational commitment and variables such as burnout, job satisfaction, and stress (Billingsley & Cross, 1992; Brown & Roloff, 2011; Canrinus et al., 2012; Collie et al., 2011; Huang and Waxman, 2009; Jepson & Forrest, 2006; Somech & Bogler, 2002; Ware & Kitsantas, 2011) and rarely provided data specifically on the measured levels of teachers' occupational commitment. The present study found North Carolina secondary teachers had similar levels of occupational commitment regardless of academic discipline, suggesting that secondary teachers represent a homogeneous population. None of the studies examined as part of the literature review explicitly considered the possibility that teachers might not represent a homogeneous population. Based on the literature review, researchers have consistently designed studies starting from an unspoken and untested presumption that teachers were a homogeneous population. Because of the present study, future research now has support for what was previously an unchallenged belief. Secondary teachers, at the least, are homogeneous in terms of occupational commitment.

Occupational Commitment and Ethical Orientation

The literature review uncovered limited research on the connection between occupational commitment and ethical orientation (Elias, 2006; Shaub et al., 1993). Shaub et al. (1993) found a small positive correlation between idealism and occupational commitment;

in addition, there was a small, negative correlation between relativism and occupational commitment. The correlations were statistically significant ($p < 0.001$) but of limited practical significance ($|r| < 0.3$). The present study found smaller correlations than the Shaub et al. study; in addition, the correlations were not statistically significant. In conclusion, ethical orientation (as described by idealism and relativism) had no relationship of practical significance to an individual's occupational commitment. As stated previously, one possible explanation for the findings was the fact that occupational commitment has been revealed as a multidimensional construct (Meyer et al., 1993; Meyer & Herscovitch, 2001). Idealism (and relativism) were most directly included in only one of the three underlying constructs. In addition, the current educational environment in North Carolina may have impacted study results (Helms, 2013; Imig & Smith, 2013).

Future research should still explore possible connections between occupational commitment and ethical orientation. The relationship between the concepts needs to be studied because research suggests careers no longer follow the linear path model of past generations; instead, current workers fully expect to work in multiple organizations over a lifetime of employment and even to experience multiple occupational changes (Baruch, 2004; Wise & Millward, 2005). In addition, ethics codes and codes of conduct have become commonplace at large companies at the same time that news reports of ethical violations have become routine (Strauss & Petrecca, 2012). However, investigators should not expect strong correlations between the concepts and will need to carefully design their studies to maintain the significance and validity of their analytical results.

Summary

The present study contributed to several fields of research: secondary teacher subculture, ethical orientation, ethics of teaching and teachers, occupational commitment of teachers, and occupational commitment and ethical orientation. The establishment of secondary teachers as a homogeneous population contradicted previous research on secondary teacher subculture, but supported previous research on gender and ethical orientation. The study presented empirical data on the ethical orientation of a population that had not been previously researched. In addition, the study results provided support for the unspoken presumption that teachers represent a homogeneous population in terms of occupational commitment. The study also offered limited support for the presence of a weak relationship between ethical orientation and occupational commitment.

Implications for Theory

According to Van de Ven (1989), "good theory is practical precisely because it advances knowledge in a scientific discipline, [and] guides research toward crucial questions" (p. 486). The crucial question in the present study was whether or not teachers' ethical orientations (as described by levels of idealism and relativism) were related to their occupational commitment. Whetten (1989) noted that a theory answers a series of core questions: what, how, why, plus the limiting questions of who, where, and when. In the same forum, Bacharach (1989) delineated the two purposes of theory as organization and communication before suggesting that theories be evaluated in terms of falsifiability (ability to be disproven) and utility (connects research to practice). Three theories/concepts were

synthesized to create the theoretical framework for the study: ethical position theory, person-vocation fit, and value consonance. The implications for each theory or concept are briefly discussed.

Ethical Position Theory

Ethical position theory argued that an individual's personal moral philosophy can be parsimoniously described by examining an individual's levels of idealism and relativism (Forsyth, 1980). In the present study, ethical position theory and the ethical position questionnaire were used to determine the idealism and relativism of teachers. The present study provided the means for increasing our understanding of teachers' ethical beliefs and confirmed the utility of ethical position theory. No conclusions were able to be drawn about the falsifiability of ethical position theory.

Person-Vocation Fit

The theory of person-vocation fit grew out of the concept of person-environment and person-organization fit (Kristof, 1996; Kristof-Brown, Zimmerman, & Johnson, 2005; Valentine, Godkin, & Lucero, 2002; Vogel & Feldman, 2009) which developed out of early theories such as Holland's theory of vocational personalities (1985), the theory of work adjustment (Betz, Weiss, Dawis, England, & Lofquist, 1968; Dawis & Lofquist, 1976; Dawis & Lofquist, 1984), and Schneider's theory of attraction/selection/attrition (1987). Schneider's theory described the process through which organizational homogeneity would be created and maintained. A central tenet of ASA stated "organizations over time become relatively

homogeneous with regard to the kinds of people in them" (Schneider, Goldstein, & Smith, 1995, p. 747). Schneider's theory, although focused on organizations, could reasonably be extended to occupations.

In the present study, the sample of North Carolina secondary teachers was homogeneous in terms of idealism, relativism, and occupational commitment. Thus, the results from the present study provided support for the earlier assertion that Schneider's theory could be extended to occupations in addition to organizations. Because the present study did not find a relationship between ethical orientation and occupational commitment, the utility and falsifiability of person-vocation fit theory could not be supported or disproved. The theory did, however, guide the development of the present study.

Value Consonance

Baumeister and Leary (1995) noted that "the need to belong is a fundamental motivation" (p. 497). Value consonance was differentiated from value congruence by Lupini (1965, as cited in Hodgkinson, 1970). Hodgkinson paraphrased Lupini's explanation of the term congruence as the "similarity or homogeneity of values within a group" (1970, p. 47). Rosenberg (1977) explained the concept of value consonance as "a place where certain things are said or remain unsaid, where characteristic points of view prevail, where tacit assumptions underlie explicit messages, where shared norms, ideas, values hold sway" (p. 206).

In the present study, the sample of North Carolina secondary teachers was homogeneous in terms of idealism, relativism, and occupational commitment. The sample demonstrated value congruence. The homogeneity of the sample also supported the concept of value consonance by offering evidence of shared values and beliefs in a common place (secondary schools).

Synthesis & Summary

The theories used in the present study were synthesized in a way that had not been previously examined by other researchers. In addition, the synthesized theories were used to examine a little researched population, namely secondary teachers in North Carolina public schools. The utility of ethical position theory was supported by the study, as were the concepts of value consonance and value congruence. Although the utility of person-vocation fit was not supported by the study, the theory was an essential component of the study design.

Implications for Practice

The results of the present study provide guidelines for practical use in addition to contributing to the research literature in multiple disciplines. On a practical basis, it is useful for North Carolina teachers to better understand themselves and for administrators to have a fuller understanding of their faculty. Teachers in North Carolina face increasing pressure from within and without, as they are asked to do more with less, to provide evidence of effective teaching, and to cope with unexpected challenges to long-standing traditions of pay

and advancement (Helms, 2013; Imig & Smith, 2013). By understanding their own beliefs and values, teachers will be better able to understand their intuitive responses to the ever-changing reality that is secondary education today. Recognizing their similarity to other teachers in terms of beliefs (levels of idealism / relativism) will provide teachers with a sense of external support in these uncertain times. The knowledge that there are others with similar beliefs and goals, irrespective of academic subject, will help teachers recognize and more fully embrace the familial aspect of secondary education and to feel less isolated in their classrooms or their departments. Teachers, as most people, rely not only on internal fortitude but also on external support networks of caring others. Realizing that all secondary teachers are more alike than different extends and strengthens the external support network of teachers in North Carolina.

In the United States, high schools are typically organized around academic subject (Little, 1995). Organization around subject matter and secondary teachers' identification with their subject help to create a set of subcultures within the larger context (Siskin, 1991; Siskin, 1994; Grossman & Stodolsky, 1995). Despite differences in subject matter, North Carolina teachers have similar levels of idealism and relativism. In a very real sense, secondary faculty are a homogeneous blend of idealistic and relativistic beliefs instead of a multitude of fragmented cultures forced to work together within one setting. As administrators face ongoing and external sources of educational reform, the ability to deal with a homogeneous faculty will somewhat ease the difficulties administrators face in implementing new policies and programs. Another potential area of practical application is in the recruitment of new faculty. Understanding the common beliefs of current teachers

may assist administrators in selecting new faculty who will better fit the belief culture of their school. However, acknowledging the relevance of person-vocation fit theory (Kristof, 1996; Kristof-Brown, Zimmerman, & Johnson, 2005; Valentine, Godkin, & Lucero, 2002; Vogel & Feldman, 2009) and Schneider's theory of attraction/selection/attrition (Schneider, 1987; Schneider et al., 1995) to the acquisition of long-term faculty members should not be taken as an excuse to use the EPQ or similar instrumentation to selectively eliminate potential teachers from the applicant pool. The fact that ethics and morals have been debated since ancient times indicates the complexity of the subjects. Therefore, the measurement of one's levels of idealism and relativism, although useful for understanding oneself and populations in general terms, should not be used as a sole criterion of acceptability for potential employment.

Relevance to Study Purpose

American high school graduates are not only competing against each other but also competing against students from countries across the world for educational and career opportunities (Casner-Lotto & Barrington, 2009; "Poor academic showing," 1998; Wagner, 2010). The most recent PISA results (OECD, 2013) indicated students from the United States continued to perform at or below average in mathematics and reading; the United States ranked 26th in mathematics and 17th in reading.

Student achievement has been negatively linked with teacher attrition (Archer, 1998; Ronfeldt, et al., 2012; Sanders & Rivers, 1996). In the present study, teacher attrition was operationalized as occupational commitment because occupational commitment can be

linked to attrition through intent to leave (Bedian et al., 1991; Ciftcioglu, 2011; Klassen & Chiu, 2011; Lee et al., 2000; Nogueras, 2006). Although teacher attrition had been consistently linked to external factors such as salary, research results were less consistent with personal factors such as age or gender (Chapman & Hutcheson, 1982; Kearney, 2011; MacDonald, 1999; Mobley, 2011; Williams, 2004). The present study sought to identify a new predictor variable of teacher attrition; namely, ethical orientation as described through levels of idealism and relativism. Although the study did not show a relationship between the variables of idealism, relativism, and occupational commitment, it contributed to the research literature in the areas of ethics and occupational commitment. Therefore, the study provided further illumination of teacher attrition. Based on the results from the present study, teachers' ethical beliefs do not form the core of their occupational commitment. Other factors, including external factors such as salary must be reconsidered as a means to lessen teacher attrition and to improve student achievement in the twenty-first century.

Limitations

The present study was limited by four factors: (a) data was obtained through voluntary participation; (b) in one county, certain secondary schools were not available for participation; (c) simple random sampling was not used due to issues with obtaining current contact data from the North Carolina Department of Public Instruction (J. Strycker, personal communication, March 20, 2013); and (d) multiple changes in the political situation in North Carolina during the summer of 2013. The generalizability of the study results were limited to some extent by factors (a) - (c). Factor (d) was externally imposed and beyond the control of the researcher.

The sampling method used in the study was a combination of purposive and random sampling. An initial list of school districts was selected in a purposeful manner in an attempt to obtain a sample representative of the population in terms of location and socioeconomic status. Five school districts agreed to participate in the study (two rural, two urban, one with regions of urban and rural). No school districts in the eastern division of North Carolina agreed to participate in the study. Two secondary schools were randomly selected for participation from each rural county. Initially, two secondary schools were randomly selected for participation from the remaining three counties. Due to an initial response rate that was lower than expected, two additional secondary schools were selected in the three more urban counties. Therefore, it was reasonable to expect the final sample to be more heavily weighted toward secondary teachers from more urban areas. A low response rate (24%) raised the possibility of bias from potential differences between respondents and non-respondents (Sackett, 1979; Sivo, Saunders, Chang, & Jiang, 2006). Despite these potential limitations, the results of the study were generalizable through the concept of proximal similarity (Campbell, 1986; Trochim, 2006).

The other limiting factor was externally imposed and beyond the control of the researcher. In the summer of 2013, Governor Pat McCrory and the state legislature proposed multiple changes to the K-12 educational system in North Carolina. These changes included proposals to eliminate teacher tenure, to eliminate supplemental pay for advanced degrees, and to remove restrictions on class sizes (Helms, 2013; Imig & Smith, 2013). In the fall of 2013, researchers from the University of North Carolina at Wilmington (Imig & Smith, 2013) surveyed over 600 teachers and administrators in North Carolina. Imig and Smith

decided to conduct their survey because "as professors who interact daily with current K-12 educators, we heard numerous anecdotes this fall about declines support for public education, increased teacher attrition, deteriorating morale, and concerns about pursuing advanced degrees" (p. 2). Key findings of the study included the following:

- Over 96% of the educators who participated think public education in North Carolina is headed in the wrong direction.
- Over 74% of respondents indicated that, as a result of the legislative changes, they were less likely to continue working as a teacher/administrator in NC.
- 97% of respondents think the legislative changes have had a negative effect on teacher morale. (Smith & Imig, 2013, p. 3)

Although the impact of the political situation on the study results cannot be known for sure, the likelihood of a negative impact on teachers (respondent and non-respondent) must be acknowledged.

Recommendations for Future Research

Seven recommendations were developed from the present study's results and conclusions. (1) In the present study, North Carolina secondary teachers were shown to be homogeneous in terms of levels of idealism and relativism. Future research should extend the examination of teachers' ethical beliefs into middle and primary schools. If all K-12 teachers are demonstrated to have homogeneous levels of idealism and relativism that may serve to provide support for previous research that operated from the base assumption that K-

12 teachers were a homogeneous population (a criticism raised by research showing the presence of secondary subcultures).

(2) Although the present study collected data on teacher age, ethnicity, and tenure, the relationships between these variables and idealism or relativism were not explored. Future studies should examine the relationship between these demographic variables and levels of idealism and relativism to determine if teachers' levels of idealism and/or relativism are persistent over time. If possible, a longitudinal study should be done over a minimum of six years starting when teachers are first employed. Previous research by Ingersoll (2002) showed teachers leave the profession at the highest rate within the first five years.

(3) The OCS (Meyer et al., 1993) breaks occupational commitment down into three components: affective, continuance, and normative. In the present study, a composite occupational commitment score was generated through summation of the component scores. Future research should examine the relationship between the components of occupational commitment and idealism / relativism. Normative occupational commitment, in particular, might correlate better with idealism since normative occupational commitment represents an obligation (or duty) to stay in the profession (Meyer et al., 1993).

(4) In an extension of recommendation (3), a qualitative study exploring teachers' perspectives on their occupational commitment would more fully illuminate the concept of occupational commitment. A qualitative study could more effectively explore how and why teachers form a commitment to their profession through in-depth interviews and reflections. Also, given the uncertain and quickly changing nature of K-12 education, such a study could

uncover potential differences in the experience of occupational commitment by novice teachers and experienced teachers.

(5) Secondary subculture was first explored in the late 1980s and early 1990s (Siskin, 1991; Siskin & Little, 1995). Secondary subculture has been demonstrated by studies involving computers (Goodson & Mangan, 1995; John & LaVelle, 2004; Selwyn, 1999), curriculum (Stodolsky & Grossman, 1995), and school reforms (Siskin, 1997; Timperley & Robinson, 2000). In the two decades since secondary subculture was first raised, there have been multiple educational reforms. New, qualitative studies similar to early work by Siskin and Little would provide key information on the impact of school reforms on secondary subculture. In addition, the studies would provide an opportunity to examine how different departments have changed in response to education reform. The studies would also provide an opportunity to explore concepts such as teamwork and supervision within departments.

(6) The present study examined the relationship between academic department and personal ethical beliefs. Although there was no relationship between academic department and idealism or relativism, future research should explore the relationship between academic department and other personal variables such as personality factors, ethnicity, and gender. A study that explored the relationships between those factors would add to the understanding of secondary subculture and its limits and boundaries.

(7) The present study used quantitative methodology to describe teachers' ethical orientations. A qualitative study of teachers' ethical beliefs would be complementary to the

present study and provide additional insights into how teacher beliefs are formed and expressed.

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APPENDICES

Appendix A
Permission to Use the Ethical Position Questionnaire

Forsyth, Don <dforsyth@richmond.edu>
To: Kelly Smith <kdsmith5@ncsu.edu>

Thu, Nov 15, 2012 at 10:25 PM

Hi Kelly,

By all means, feel free to use the Ethics Position Questionnaire in your research. I hope that it proves useful in explaining at least a part of the variance in people's responses in morally toned situations. I would think, for example, that it would explain differences in how people react to such things as the Atlanta GA teaching scandal—although it would be an empirical question.

I've posted information about the instrument at this site, should you have questions:

<http://donforsyth.wordpress.com/ethics/ethics-position-questionnaire/>

Don Forsyth

Donelson R. Forsyth, Ph.D.
Professor, The Leo K. and Gaylee Thorsness Chair in Ethical Leadership
The Jepson School of Leadership Studies
University of Richmond
28 Westhampton Way
Richmond, Virginia 23173
dforsyth@richmond.edu
804-289-8461
<http://facultystaff.richmond.edu/~dforsyth/>

Appendix B
Permission to Use the Occupational Commitment Scale

John Meyer <meyer@uwo.ca>
To: Kelly Smith <kdsmith5@ncsu.edu>

Fri, Nov 16, 2012 at 8:09 AM

Dear Kelly,
You are welcome to use the occupational commitment scales in your research. I assume you have a copy but I have attached one just in case. I hope all goes well.

Best regards,

John Meyer

John P. Meyer, PhD
Department of Psychology
Western University
London, Ontario, Canada
N6A 5C2

Phone: [519-661-3679](tel:519-661-3679)

Fax: [519-661-3961](tel:519-661-3961)

Email: meyer@uwo.ca

[Quoted text hidden]



occupational commitment scales.doc

24K

Appendix C
NCSU Institutional Review Board Approval

North Carolina State University is a land-grant
university and a constituent institution of the
University of North Carolina

Office of Research and Innovation
Division of Research Administration

NC STATE UNIVERSITY

Campus Box 7514
Raleigh, North Carolina 27695-7514

919.515.2444 (phone)
919.515.7721 (fax)

From: Deb Paxton, IRB Administrator
North Carolina State University
Institutional Review Board

Date: May 13, 2013

Title: Public Secondary School Teachers in North Carolina: Levels of Idealism and
Relativism, and the Impact on Occupational Commitment

IRB#: 3284

Dear Kelly,

The project listed above has been reviewed by the NC State Institutional Review Board for the
Use of Human Subjects in Research, and is approved for one year. **This protocol will expire on
May 9, 2014 and will need continuing review before that date.**

NOTE:

1. You must use the attached consent forms which have the approval and expiration dates of
your study.
2. This board complies with requirements found in Title 45 part 46 of The Code of Federal
Regulations. For NCSU the Assurance Number is: FWA00003429.
3. Any changes to the protocol and supporting documents must be submitted and approved by
the IRB prior to implementation.
4. If any unanticipated problems occur, they must be reported to the IRB office within 5
business days by completing and submitting the unanticipated problem form on the IRB
website.
5. Your approval for this study lasts for one year from the review date. If your study extends
beyond that time, including data analysis, you must obtain continuing review from the IRB.

Sincerely,



Deb Paxton
NC State IRB

Appendix D
Email to Superintendent or District Contact

Dear _____

I am a doctoral student in the College of Education at North Carolina State University.

As you know, teacher attrition has a negative impact on student learning and on school systems' economic resources. I am examining teachers' levels of idealism / relativism and the potential of these variables to predict teaching commitment.

I am asking permission to include secondary teachers from your district in my sample. Your district was chosen due to location and population density. Teachers will only be identified by school district and academic department.

Principals will be asked to: (a) show a 5 minute video, and (b) disseminate 2 emails to their staff.

Teachers will be asked to: (a) watch a 5 minute video, and (b) complete a 15 minute anonymous, confidential, and voluntary Internet-based survey.

I intend to collect data in the first six weeks of fall semester, 2013.

The ultimate goal is to improve student outcomes by decreasing teacher attrition. I will be happy to share the results of my research with your district.

I look forward to answering any questions you may have and to receiving your approval.

Sincerely,

Kelly D. Smith

Doctoral student, NCSU

Secondary Teacher, Union County Public Schools

Appendix E Script for Introductory Video

Hello. I'm Kelly Smith and I teach high school in Union County. I am also a doctoral student at North Carolina State.

As you know, teachers leave our profession at an alarming rate. In fact, research says that more than one-third of teachers will leave in the first five years.

When teachers leave, our students suffer, either through the loss of a good teacher or through the loss of financial resources in our school systems.

I am examining teacher beliefs and how these beliefs may impact teachers' commitment. I have created a survey that includes questions on idealism, relativism, and occupational commitment. The survey is anonymous and confidential. Your answers can only be identified by school district and academic department. The survey should take you no more than 15 minutes.

Teachers across North Carolina are extremely diverse. Your school district was chosen to help represent this diversity.

Participation in this research is completely voluntary. With your help, I will learn more about North Carolina teachers. My ultimate goal is to find ways to help teachers stay in the profession so our students can reach their full potential.

Within the next 24 hours, you should receive an email with a web link to Survey Monkey. The email will also include my contact information so I can answer any questions you might have.

Please help me help our students.

Thank you.

Appendix F
Invitation Email for Secondary Teachers

Good morning,

My name is Kelly Smith. As you heard in my introductory video, I am a high school teacher in Union County and a doctoral student at NC State University. I am requesting your participation in a brief survey that contains questions about your beliefs and your long-term commitment to teaching. If you did not get a chance to see the introductory video and would like to see it, please use this link. *(link to video inserted here)*

I am trying to better understand what keeps teachers in the teaching profession, and your information is extremely valuable to that process. Understanding what keeps teachers in the profession will help us retain teachers, and will help us work towards the ultimate goal of improving student achievement.

If you agree to participate, please click on the survey link below. All information is confidential, and no names of teachers or school district will be used in any publication or presentation. No individual information will be shared with peers, parents, other teachers, administrators, or school districts. The survey will take approximately 15 minutes to complete.

Please understand that participation in this study is not a requirement of your employment at your school, and your participation or lack thereof, will not affect your job.

This survey will be open for four weeks. You will receive a reminder email after two weeks.

If you have any questions, please feel free to contact me by phone (704-296-3020) or email (kdsmith5@ncsu.edu, kelly.smith@ucps.k12.nc.us).

Thank you for your willingness to help me learn more about North Carolina teachers!

(link to survey inserted here)

Appendix G
Reminder Email for Secondary Teachers

Good morning,

My name is Kelly Smith. Approximately two weeks ago, I contacted you and asked you to participate in a voluntary, confidential survey about teacher beliefs and commitment to teaching. If you have already completed the survey, thank you!

If you have not had a chance to complete the survey, please do so. The survey takes approximately 15 minutes and provides information that will help me better understand what keeps teachers in the teaching profession. The survey will be open until midnight on Friday, 10/04/2013.

If you agree to participate, please click on the survey link below. All information is confidential, and no names of teachers or school district will be used in any publication or presentation. No individual information will be shared with peers, parents, other teachers, administrators, or school districts.

Please understand that participation in this study is not a requirement of your employment at your school, and your participation or lack thereof, will not affect your job.

If you have any questions, please feel free to contact me by phone (704-296-3020) or email (kdsmith5@ncsu.edu, kelly.smith@ucps.k12.nc.us).

Thank you for your willingness to help me learn more about North Carolina teachers!

(link to survey inserted here)

Appendix H Online Survey

Informed Consent

This consent form is valid from May 9, 2013 to May 9, 2014.

I am requesting your participation in a brief survey that contains questions about your beliefs and your long-term commitment to teaching. The survey contains questions on idealism, relativism, and occupational commitment. This survey is part of my doctoral research at NC State University.

Your information is extremely valuable as I try to better understand what keeps teachers in the teaching profession. This information will help us retain teachers, with the ultimate goal of improving student achievement.

Participation in the research is voluntary. All information is confidential, and no names of teachers or school districts will be used in any publication or presentation. No individual information will be shared with peers, parents, other teachers, administrators, or school districts.

Please understand that participation in this study is not a requirement of your employment at your school, and your participation or lack thereof, will not affect your job. You may contact me with any questions about this study by email or phone (704-296-3020, kdsmith5@ncsu.edu, kelly.smith@ucps.k12.nc.us).

If you understand the study and agree to participate in the research, please click on "agree" at the bottom of this page. Clicking on "agree" will take you to the research survey. The survey should take you approximately 15 minutes. You may exit the survey at any time during the process. Thank you for your participation.
Kelly Smith

1. Please help me understand what keeps teachers in our profession by clicking on the "agree" button and completing the survey.

- Agree
- Disagree

Appendix H (continued)
Online Survey

Demographic Questions

2. Where do you teach?

- Buncombe County
 Chatham County
 Forsyth County
 Rutherford County
 Union County

3. How long have you been a teacher (years)?

4. How did you become a teacher?

- first career - traditional route
 second career - lateral entry

Other (please specify)

*5. Which academic department best fits your teaching assignment?

- career / technical (CTE)
 English
 fine arts (music, drama, art)
 health / physical education
 mathematics
 ROTC
 science
 social studies
 world languages

Other (please specify)

6. What is your gender?

- male
 female

7. What is your age (years)?

Appendix H (continued)
Online Survey

8. What is your ethnicity?

- black
 white
 other

9. Where did you receive your teacher preparation (name of institution)?

Appendix H (continued)
Online Survey

- 1 = Strongly Disagree
2 = Moderately Disagree
3 = Slightly Disagree
4 = Neither Agree nor Disagree
5 = Slightly Agree
6 = Moderately Agree
7 = Strongly Agree

34. Rigid ethical codes that prevent certain types of actions could stand in the way of better human relations and adjustment.

1 2 3 4 5 6 7

35. It is never necessary to sacrifice the welfare of others.

1 2 3 4 5 6 7

36. No rule about lying can be created; whether a lie is permissible or not totally depends upon the situation.

1 2 3 4 5 6 7

37. Moral actions closely match ideals of the most "perfect" action.

1 2 3 4 5 6 7

38. Whether a lie is judged as moral or immoral depends on the circumstances surrounding the lie.

1 2 3 4 5 6 7

Appendix H (continued)
Online Survey

- 1 = Strongly Disagree
2 = Moderately Disagree
3 = Slightly Disagree
4 = Neither Agree nor Disagree
5 = Slightly Agree
6 = Moderately Agree
7 = Strongly Agree

44. I would feel guilty if I left my occupation.

1 2 3 4 5 6 7

45. I am enthusiastic about my occupation.

1 2 3 4 5 6 7

46. Changing occupations now would require considerable personal sacrifice.

1 2 3 4 5 6 7

47. I am in my occupation because of my sense of loyalty to it.

1 2 3 4 5 6 7