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Predicting Influential Factors of Secondary Career and Technical Education Teachers' Intent to Stay in the Profession

Julie Diane Dainty
University of Arkansas, Fayetteville

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PREDICTING INFLUENTIAL FACTORS OF SECONDARY CAREER AND TECHNICAL
EDUCATION TEACHERS' INTENT TO STAY IN THE PROFESSION

PREDICTING INFLUENTIAL FACTORS OF SECONDARY CAREER AND TECHNICAL
EDUCATION TEACHERS' INTENT TO STAY IN THE PROFESSION

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Education in Workforce Development Education

By

Julie D. Dainty
Pittsburg State University
Bachelor of Science in Education, 1989
Pittsburg State University
Master of Science in Technical Teacher Education, 2008

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University of Arkansas

ABSTRACT

Retaining highly qualified career and technical education teachers is important in maintaining and growing quality secondary career and technical education programs. Therefore, the purpose of this study was to identify factors contributing to teacher retention specifically in the area of career and technical education (CTE) and determine predictability of the factors' influence on secondary CTE teachers' intent to stay in or leave the teaching profession. The career and technical areas of family and consumer sciences, trade and industrial, health occupations, and agriculture in the state of Kansas made up the population for this study. The six factors that data were collected on were educational preparation, teacher commitment, first year teaching experience, skills and abilities, social integration and institutional factors. Participants in this study perceived their educational preparation overall as good. No item was given an overall rating of excellent leaving room for improvement in this area. Overall, participants agreed with their commitment to teaching, items pertaining to the first year teaching experience, and their skills and abilities in the profession. Within the category of social integration, teachers rated that gaining student respect was extremely important. CTE teachers surveyed rated an inner sense of knowing they are doing a good job as extremely important in the construct of institutional factors. All overall ratings of the six factors indicate that teachers tended to agree or rate as important the items under these constructs. Predicting the intent to stay in or leave the profession of teaching was analyzed quantitatively using discriminant analysis. Findings indicate the independent variables of educational preparation, teacher commitment, first year teaching experience, skills and abilities, social integration, institutional factors, and content area did not have an influence in predicting CTE teachers' intent to stay in or leave the profession of teaching.

This dissertation is approved for recommendation

to the Graduate Council.

Dissertation Chair:

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Dr. Jack De Vore

Dissertation Committee:

_____

Dr. Kenda Grover

_____

Dr. Michael Daugherty

_____

Dr. Gregory Belcher

DISSERTATION DUPLICATION RELEASE

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DEDICATION

  I dedicate this dissertation to my children; Luke, Audrey, and Abigail. It is my heart's desire that you understand that this was not a drive to achieve a title or degree to hang on the wall, but a desire to grow as an individual and a teacher. Instilling a desire to continually learn and grow will improve your quality of life. Never underestimate yourself or who God created you to be. When God provides opportunity, He also provides a way.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Teacher turnover is a valid concern in the educational world today. DePaul (2000) reports nationally, 22% of all new teachers leave the profession in the first three years due to a lack of support and a "sink or swim" approach to induction. Carroll and Foster (2010) stated that after five years, over 30% of beginning teachers have left the profession before they have had time to become proficient educators with confidence in their abilities. Data indicates that school staffing problems are to a large extent the result of a revolving door: large numbers of teachers leave their teaching jobs long before retirement (Smith & Ingersoll, 2004). "Simply hiring new teachers to keep the pipeline supplied is no longer a viable solution. Today's teachers do not stay on the job as long as earlier generations did" report Carroll and Foster (2010, p. 9). The United States Department of Education projects that within the next five years, up to 1 million new teaching positions will need to be filled (DeWitt, 2010).

A number of studies have been conducted to determine what influences the attrition of teachers in core academics. As Ingersoll (2001) states, teacher turnover is a significant phenomenon, and a dominant factor in meeting the demand to staff classrooms with qualified teachers. In a quantitative study predicting secondary English teacher attrition risks by Hancock and Scherff (2010), five variables out of 32 examined emerged as statistically significant: status as a minority teacher, years of teaching experience, recognized teacher apathy, perceived peer support and reported administrative support. The National Science Foundation funded a study to explore the experiences of beginning secondary science teachers; the study found leavers to be discontented with their working environment, specifically unsupportive administrators, colleagues and district personnel (Bang, Kern, Luft, & Roehrig, 2007).

The No Child Left Behind Act of 2001 requires that every classroom be staffed with a qualified teacher. The accountability of districts to meet the criteria has increased the awareness of teacher attrition nationally. All students in all grade levels need well-qualified, experienced teachers, but the need is especially high in America's middle and high school levels (Alliance for Excellent Education, 2005). More qualified teachers are considering leaving, which jeopardizes the teaching standards in the school (Ingersoll, 2001). The Alliance for Excellent Education (2005) reports that six million students, nationally, are at high risk of dropping out of school or graduating without the skills they need to succeed in college or the twenty-first-century workforce. The ambiguous nature of the definition of a highly qualified teacher poses a problem for those in the teaching profession (Berry, 2002). To assist in defining the attributes of a highly qualified teacher in career and technical education (CTE), research is needed to identify the factors influencing the retention of existing educators, which would inherently establish criteria for the definition.

Another concern with teacher attrition is the cost to school districts. Recently, the cost of teacher turnover has been explored. Watlington, Shockley, Guglielmino, and Felsher (2010) outlined costs associated with teacher turnover as separation costs, recruitment and hiring costs, and new employee induction and professional development costs. According to a US Department of Labor formula, school systems across the United States spent $4.9 billion on teacher turnover in 2005, which translates to approximately $12,350 per teacher (Alliance for Excellent Education, 2005). "Considering that government policy experts anticipate future teacher shortages, strategies that increase teacher retention and simultaneously balance the costs of retaining high-quality teachers are opportune" (Watlington et al., 2010, p. 33) for school

districts. With the economic effects on education, the financial benefit of retaining quality

teachers increases the need for identifying influential factors in teacher retention.

Cochran-Smith (2004) stated that "teacher shortage is in large part a demand problem that can

be solved only if we decrease demand by increasing retention" (p. 390). Finding out what keeps

teachers believing and demonstrating their ability to make a difference in the lives of the children

they teach may contribute to retention efforts (Day & Gu, 2009).

Adding to the body of knowledge in teacher retention specific to the area of career and

technical education is needed. Camp and Heath (1989) stated that as many as one-fourth of the

problems beginning career and technical education (CTE) teachers experience are unique to the

career and technical area. Therefore, diversity of CTE areas requires a more specific approach

when identifying retention factors than the traditional core academics. Ruhland (2001)

recommended further research be conducted for each of the CTE teaching areas to make

comparisons between those choosing to leave or remain in the profession. Sustainability and

growth of CTE programs nationwide is influenced by the ability to retain quality teachers in the

classroom and laboratories. In addition, "teacher turnover is particularly critical in career and

technical education because many CTE teachers come to classrooms directly from industry and

are very difficult to replace if lost to attrition" (Song, Martens, McCharen, & Ausburn, 2011, p.

3).

Significance of the Study

Gaining insight into the factors influencing retention of teachers in career and technical

education programs may be beneficial in enriching CTE programs nationwide. Reducing teacher

turnover, determining what highly-qualified means in CTE and reducing costs to districts are

among the benefits of predicting influences on secondary CTE teacher retention in Kansas.

In an analysis of teacher turnover, the Alliance for Excellent Education found that retirement was reported as a reason for leaving less often than job dissatisfaction or pursuit of another job (2005). Ingersoll and Smith (2003) explained that compared to many other occupations, the teaching occupation suffers from chronic and relatively high annual turnover. Of course, some employee turnover can reduce stagnancy, but high levels of turnover suggest underlying problems within an organization (Ingersoll & Smith, 2003).

Current legislation of the No Child Left Behind Act (2001) increases accountability issues for school districts in all areas. Identification of factors influencing retention will assist in defining highly qualified teachers in CTE. Ingersoll (2001) states that "teacher turnover is a significant phenomenon, and a dominant factor behind the demand for new teachers and the difficulties schools encounter adequately staffing classrooms with qualified teachers" (p. 501). Reduction of attrition rates of teachers in CTE has the potential to improve student retention as well as performance.

Nationally, each school day, nearly a thousand teachers leave the field of teaching and another thousand change schools often in pursuit of better working conditions (Alliance for Excellent Education, 2005). Such attrition is costly to schools. In a conservative estimate, $2.2 billion a year is the cost of replacing public school teachers who have dropped out of the profession. The Alliance for Excellent Education (2005) itemized the costs to each state. In the state of Kansas, a total of $51,318,964 was reported as the total teacher turnover cost (not including retirements). With budget crunches in school districts, this expense sparks interest.

Problem Statement

An understanding of the influence of identified factors influencing retention is important in ensuring quality teachers remain in CTE secondary classrooms and laboratories in the state of Kansas.

Purpose

The purpose of this research study was to determine factors contributing to the retention of secondary CTE teachers in the state of Kansas. An analysis was conducted to predict the influence the determined factors have on a secondary CTE teacher's intent to stay in or leave the teaching profession. The independent variables are educational preparation, teacher commitment, social interaction, first year teaching experience, skills and abilities, institutional factors and CTE content area of secondary CTE teachers in Kansas. This study collected data on the identification of factors affecting retention of CTE teachers in the state of Kansas in four prominent technical areas in the state. Data were collected in the areas of family and consumer sciences (spring 2008), health occupations (spring 2009), trade and industrial (fall of 2009) and agriculture (fall 2011). Factors were analyzed to determine predictability of career and technical education teachers to stay in or leave the profession of teaching.

Research Questions

The following questions provided the framework for identifying factors influencing the retention of CTE teachers and predicting their intent to stay in or leave the profession.

1. How do CTE teachers rate their educational preparation, their commitment to teaching, their first year teaching experience, and their skills and abilities in their current teaching position?

2. How do CTE teachers rate the importance of social interaction factors and institutional factors related to their teaching career?

3. How well do the discriminate variables of educational preparation, teacher commitment, social interaction, first year teaching experience, skills and abilities, institutional factors, and CTE content area predict the intent of career and technical teachers staying in the teaching profession?

Hypothesis

HO: The identified independent variate has no influence on predicting the CTE teacher's intent to stay in or leave the profession of teaching.

Theoretical Framework

A reasonable way to respond to the concern of retention of public school teachers is to identify the personal and situational influences on retention and develop an intervention designed to selectively attract good teachers to remain in teaching (Chapman, 1984). Developing and testing a model of the influences on teacher attrition is Chapman's (1984) contribution to the retention dilemma. Chapman's (1984) model (see Appendix A) is based on Holland's (1959) theory of vocational choice and Krumboltz' (1976) social learning theory. At the time of vocational choice, Holland's (1959) theory assumes the person is the product of the interaction of their particular heredity along with a variety of cultural and personal forces including peers, parents and significant adults, their social class, American culture, and the physical environment. Krumboltz's (1976) social learning theory of career selection identifies four categories that influence the nature of career decision making: (a) genetic endowment and special abilities, (b) environmental conditions and events, (c) learning experiences, and (d) task approach skills. Approaching this model with a more specific application to teaching, Chapman suggested that

teacher retention is the function of: (a) a teacher's personal characteristics, (b) educational preparation, (c) initial commitment to teaching, (d) quality of their first teaching experience, (e) professional and social integration into teaching, and (f) external influences (Chapman & Green, 1986). The model was used within three groups of college graduates with teaching certificates: (a) those who taught continuously, (b) those that started teaching but left within five years, and (c) those who never taught. Chapman's model (see Appendix A) served as the foundation for this study.

Ruhland (2001) referred to Chapman's (1984) six functions of teacher retention in developing survey questions for identifying factors influencing turnover and retention of Minnesota's secondary career and technical teachers. Dainty and Belcher (2008) used Ruhland's (2001) research as a basis for the theoretical framework in determining factors influencing retention of family and consumer sciences teachers in the state of Kansas. Ruhland's (2001) survey was expanded in the areas of educational preparation, teacher commitment and first year teaching experience.

Su, Dainty, Sandford, Townsend, and Belcher (2011) then developed a suggested model of the influences associated with secondary trade and industrial (T&I) teacher retention in the state of Kansas following the descriptive study of the retention of secondary T&I teachers in Kansas. The intent of the present study was to test a proposed model (see Figure 1) based on the model developed by Su et al. (2011) through a discriminate analysis study. The additional influence of content area was added to the model to address the four areas of family and consumer sciences, health occupations, agriculture and trade and industry. The framework for this study was to predict the influences of the selected variables outlined in the proposed model on the dependent

variable of the intent of Kansas secondary CTE teachers to stay in or leave the profession of

teaching.

Figure 1. Proposed Model of the Influences Associated with Secondary Career and Technical Education Teacher Retention

Educational Preparation

-Teacher preparation program

-Teaching methods

-Classroom technology use

-Curriculum development

Teacher Commitment

-Improving student performance & engagement

-Reputation of the school

-Updating classroom content

-Incorporating new ideas into the classroom

Social Integration

-Gaining student respect

-Administrative relationships

Secondary Career & Technical Education Teacher Retention

Content Area

-Family & Consumer Sciences

-Trade & Industrial

-Health Occupations

-Agriculture

First Year Teaching Experience

-Performing Administrative tasks

-Selecting Course content for Lectures

-Managing classroom time, student behaviors, & extra duty assignments

Skills & Abilities

-Knowledge of content

-Communication with students, students' families, school administrators, & community members

-Teaching methodologies

Institutional Factors

-Support from school

-Approval of family and close friends

-Relationships with peers, students, & student organizations

Delimitations

   As a result of limited literature specific to the retention of career and technical education

teachers, only CTE teachers were included in the population. Core academic teachers were not

included in the population of this study. The population of teachers included only those

currently teaching in the state at the time the surveys were distributed. Four content areas in

career and technical education in the state of Kansas made up the identified group of CTE

teachers: family and consumer sciences, health occupations, trade and industrial, and agriculture.

Also, only secondary teachers were surveyed. Post-secondary teachers were not included in the

population.

Limitations

   The following limitation must be considered:

   The research is confined to one Midwestern state, Kansas. Findings should not be

   generalized to career and technical teachers in other states.

Definitions

   Career and Technical Education (CTE): for the purpose of this study, CTE teachers

   were represented by the program areas of family and consumer sciences, trade and

   industrial, health occupations, and agriculture.

   CTE Content Area: the career and technical education program area of family and

   consumer sciences, trade and industrial, health occupations, and agriculture.

   Educational Preparation: an independent variable including teacher preparation

   programs, teaching methods, classroom technology use, curriculum development,

   classroom management, student assessments, special needs students, and student

   organizations.

First Year Teaching Experience: an independent variable including an instructor's experience performing administrative tasks, selecting course content for lectures, managing classroom time, student behaviors, extra duty assignments, and developing curriculum.

Institutional Factors: an independent variable including support from school, approval of family and close friends, and relationships with peers, students, and student organizations.

Leavers: participants in this study who answered no to item #89 on the survey instrument regarding whether they plan to continue teaching in their future career plans.

Skills and Abilities: an independent variable including an educator's knowledge of content, communication with students, students families, school administrators, and community members, and teaching methodologies

Social Integration: an independent variable including gaining student respect, administrative relationships, fitting into the school community, collegiality, and parental relationships.

Stayers: participants in this study who answered yes to item #89 on the survey instrument regarding whether they plan to continue teaching in their future career plans.

Teacher Commitment: an independent variable encompassing improving student performance and engagement, reputation of the school, updating classroom content, incorporating new ideas into the classroom, supporting students, extra tasks that benefit the school, and developing relationships with students' families.

Chapter 2: Review of Literature

The literature review focuses on factors related to teacher retention. The following research questions served as an outline for the organization of the literature review.

1. How do CTE teachers rate their educational preparation, their commitment to teaching, their first year teaching experience, and their skills and abilities in their current teaching position?

2. How do CTE teachers rate the importance of social interaction factors and institutional factors related to their teaching career?

3. How well do the discriminate variables of educational preparation, teacher commitment, social interaction, first year teaching experience, skills and abilities, institutional factors, and CTE content area predict the intent of career and technical teachers staying in the teaching profession?

The review walks through each of the discriminate variables included in research question number three beginning with educational preparation and ending with CTE content area. Finally, an examination of intent to stay in the profession concludes the literature review.

Educational Preparation

Chapman (1984) included the area of educational preparation in his model of the influences associated with teacher attrition. Specifically, this influence included the adequacy of the teacher preparation program, student performance in the program, and amount of education of the participant (Chapman, 1984). Since Chapman's (1984) research identified initial commitment to teaching as the single strongest predictor of retention, teacher preparation programs could be a benefit in influencing future teachers through efforts to reinforce and encourage commitment to teaching (Greiner & Smith, 2006). Mulvay and Cooper (2009)

explain that while young aspiring teachers in the traditional programs are enthusiastic to begin their careers in the classroom, they do so with conditional attitudes toward remaining as a classroom teacher for very long.

Nagy and Wang (2007) explain that "some individuals who are interested in the teaching profession are prepared to follow traditional teacher training, whereas others work in other professions first and then decide to teach. Both bring valuable knowledge and experience to the classroom, but each has a unique need for professional support" (p. 110). With attrition being a concern for all types of teachers, understanding what influences a teacher's decision to stay in or leave the profession in comparison to their educational preparation is extremely beneficial. In an organizational analysis of teacher turnover and teacher shortages, Ingersoll (2003) reported that 40 to 50 percent of all beginning teachers have left the profession in their first several years of teaching. Darling-Hammond (2003) explains that "a growing body of evidence indicates that teachers who lack adequate initial preparation are more likely to leave the profession" (p. 9). First-year teachers who felt they were well prepared to teach were much more likely to plan to stay in the profession than those who felt poorly prepared (Darling-Hammond, 2003).

Comparing the type of educational preparation (traditional or alternative route) a teacher participates in and their perceptions of other factors contributing to teacher retention can provide more insight into the influence of teacher preparation on retention. After studying state certification requirements for CTE teachers, Zirkle, Martin, and McCaslin (2006) explained that colleges and universities may have traditional or alternative CTE teacher certification/licensure programs, or a combination of both. The traditional route includes a degree based teacher education program consisting of pedagogical preparation, general education, coursework specific to content, and field experiences (Zirkle et al., 2006) whereas the alternative

certification/licensure programs rely more heavily on work experience and assessments. Strunk and Robinson (2006) studied the difficulties of retaining qualified teachers and found that teachers with emergency certifications or advanced (master's or doctoral) degrees were not significantly more likely to leave their teaching jobs. However, the study did uncover the suggestion that teachers with more advanced degrees may be more likely to quit due to the opportunities for a higher wage their degree may provide outside of teaching (Strunk & Robinson, 2006).

Ruhland and Bremer (2004) report no difference in the likelihood to continue in the teaching profession between traditionally or alternatively certified teachers. "Overall, research has indicated that adequate pre-service preparation and inservice support of novice teachers are important to improving both teaching quality and retention" (Ruhland & Bremer, 2004, p. 6) confirming a potential need to improve educational preparation.

Commitment to Teaching

Meyer and Allen (1991) developed a three-component model of organizational commitment. The components of the model are categorized as three types; affective, normative, and continuance. Affective commitment is the employee's desire to continue employment in the organization due to identification with it, involvement in it, and attachment to it. Normative is based on the obligation one feels that they ought to remain in the organization. Finally, continuance represents an employee's choice to stay because they need to (Meyer & Allen, 1991). The authors prefer the components not be looked upon as types of commitment since an individual can potentially experience all three components in varying degrees (Meyer & Allen, 1991). Tests of the three-component model of organizational commitment showed that affective commitment correlated strongly with job satisfaction, management receptiveness, leader-member

relations, and opportunity to voice one's views. Continuance commitment correlated highly with

sunken costs, skill specificity, and availability of better alternatives (negatively). The Meyer and

Allen (1991) study was not a good test of the model's predictions concerning normative

commitment. This model of organizational commitment is beneficial in understanding the

approach to career commitment a teacher may have.

Chapman and Green (1986) found that "the roots of attrition reach back to differences in

initial career commitment and early work experiences" (p. 273). A qualitative study of teachers

in California by Bartlett (2004) revealed that some teachers leave teaching because of long work

hours, but also that simply mandating a reduction in work hours will not ensure teacher retention.

Educators want to feel that the students are being served well and that they are fulfilling their

notions of good teaching. Since teachers do not generally receive additional pay or promotion

for extra work and longer working hours do not result in higher pay, something else is

motivating them to go the extra mile (Bartlett, 2004). An understanding of the influences

contributing to teacher commitment outside of monetary benefits can be beneficial in retention

research.

A great deal of focus in teacher retention is on the early years an individual is in the

profession. Day and Gu (2004) addressed the challenges facing veteran teachers with twenty-

five or more years experience and how they have managed to continue their call to teaching in an

investigative paper. Gaining knowledge of a veteran teacher's experiences, their values for

education, and their sense of vocation contribute to the understanding of their ability to bounce

back from adverse circumstances and continue to fulfill their teaching expectations (Day & Gu,

2004). The commitment exhibited by veteran teachers can be a positive influence in retaining

novice teachers.

In order for teachers to have the motivation to professionalize and pursue changes in their practice while coping with the complex demands these changes present, a mix of commitments to the organization, profession, and students is necessary (Firestone & Pennell, 1993). In a review of research, Firestone (1993) identified seven key workplace conditions that can contribute to teacher commitment: job design characteristic, feedback, autonomy, participation, collaboration, learning opportunities, and resources. Each area deserves attention in order to balance their effects on teacher commitment. Too much attention on one condition without considering others could be detrimental (Firestone & Pennell, 1993). The challenge is to implement the changed working conditions in ways that stimulate recruitment of new teachers and builds the commitment of veteran teachers (Firestone & Pennell, 1993).

New York's last in, first out (LIFO) has elevated concerns that the best teachers will be forced out regardless of their qualifications and effectiveness (Ling, 2011). New York state law requires layoffs among teachers to occur in order of reverse seniority. This lack of job security for new teachers can create a lack of commitment to their profession until more seniority is achieved. Over 80% of New Yorkers believe teachers should be laid off based on teacher effectiveness rather than seniority (Ling, 2011).

Teachers who have less control over their classroom practices and limited influence over policy in their school are more likely to quit the profession (Smith & Rowley, 2005). In predicting teacher commitment, Louis (1998) found that professional development opportunities, being respected by peers, students, and the principal as well as others outside the school, and receiving feedback from colleagues and the principal regarding one's work all showed a significant influence. The findings from Louis' (1998) research encourage the professional development of teachers in areas of classroom practices and school involvement beyond the

simple everyday tasks in order to improve teacher commitment and reduce turnover. Teachers

are less likely to engage with the acts of teaching and working within the school if they feel

caught in a daily grind where they feel limited in trying out new ideas or receiving sustained

professional development opportunities (Louis, 1998). Louis (1998) defines commitment as

"consisting of personal and professional investment in a specific workplace and its goals, as

indicated by specific behaviors that indicate extra effort as well as attitudes" (p. 3). Four distinct

types of commitment were outlined in Louis' (1998) study: commitment to the school as a social

unit, commitment to the academic goals of the school, commitment to students as unique whole

individuals rather than "empty vessels to be filled" (p. 4), and commitment to the body of

knowledge needed to carry out effective teaching. Ignoring the influence of such commitment

and its effect on a teacher's sense of efficacy and quality of work life is short-sighted (Louis,

1998).

Social Integration

Muller, Gorrow, and Fiala (2011) found that teachers associate their roles and responsibilities

within the school environment to their social interactions with others within that setting. Muller

et al. (2011) states that "positive relationships and interactions with colleagues, as well as

knowing how one fits into these social and professional structures, is important in fostering

teachers' resilience" (p. 552). An ability to adapt to the challenges of teaching leads to the

development of resiliency in teachers. If school conditions can aid in fostering such resiliency,

then an increased number of teachers may remain in the profession despite the various challenges

they may face (Muller et al., 2011).

Relational teacher development is a term coined by Kitchen (2009) that encompasses a

professional development and renewal vital to a teacher's commitment and desire to remain in

the profession. Kitchen (2009) includes seven characteristics in relational teacher development: understanding the landscape, helping the teacher face a problem, respecting and empathizing with the teacher, conveying respect and empathy, understanding one's own personal practical knowledge, improving one's practice in teacher development, and receptivity to growing in a relationship. Kitchen states that "teacher development, like teaching, involves a complex interplay of intellectual, emotional and social processes" (p. 59). Focusing on the social integration into the world of education can benefit the teacher, the students, and the school.

Clayton and Schoonmaker (2007) carefully examined the stories of three academically able teachers who graduated from the same teacher preparation program. A closer look at the personal and professional knowledge in the social context of the three participants revealed that the two teachers who stayed in the profession received critical support in their development as teachers and in school environments that nurtured teacher development (Clayton & Schoonmaker, 2007). An ability to foster social integration in the world of education is an area of interest for administrators and teacher educators in career and technical education programs. As the Southern Regional Education Board (2009) explains, the effort-based school improvement initiative, High Schools that Work (HSTW), is focused on engaging state, district, and school leaders in partnerships with teachers, students, parents, and the community to raise student achievement in high school and middle grades. HSTW supports focusing on what and how teachers teach by providing common planning time and professional development that aligns with school improvement plans (SREB, 2009).

A typical day for many teachers is spent with their students in the classroom, out of contact with other teachers (Song, et al., 2011). Teachers operate independently of colleagues and function in isolation, which tends to lead to a lack of autonomy as a result. There is a low level

of interaction between beginning teachers and their co-workers, increasing a feeling of isolation (Camp & Heath-Camp, 1991). Chapman (1983) stated that social integration is a more complicated, yet important, aspect of teacher turnover, due to the considerable isolation of teachers from their peers.

First Year Teaching Experience

Critics have long criticized teaching as a profession that "cannibalizes its young" and in which the initiation of new teachers is a "sink or swim", "trial by fire", or "boot camp" approach (Smith & Ingersoll, 2004). Smith and Ingersoll (2004) report that "nearly 3 in 10 new teachers move to a different school or leave teaching altogether at the end of their first year in the occupation (p. 706). DePaul (2000) defines sink or swim as the quick orientation to the school policy and procedures, the lack of time to discuss pedagogy with colleagues or prepare for classes, and overloading the new teacher with more challenging assignments. Coggins and Peske (2011) voice their concern that schools are set up to benefit those with the greatest career longevity which sends a message to younger teachers that they will have to "wait their turn", "accept the system as it is", and eventually they will reap the benefits as well. An urgency and impatience for change in their work environment results in new teachers leaving the profession before reaching seniority levels of benefit (Coggins & Peske, 2011). Understanding the impact of the first year teaching experience on teacher retention may have an impact on improving attrition rates in the profession.

A new teacher is often excited about their new role in the classroom. However, they are now in charge of the classroom and often feel lost, they are usually alone without any adult contact, and they are expected to perform like a veteran teacher without the assistance and support needed to accomplish that task (Camp & Heath-Camp, 1991). Participation in a comprehensive

induction program can shorten the time it takes for new teachers to perform at the same level as an experienced teacher—on average, from three to seven years (Alliance for Excellent Education, 2005, p. 3). Odell and Ferraro (1992) reported that teachers most valued the emotional support they received during their first year of teaching followed by support in using instructional strategies and obtaining resources for the classroom.

For individuals in the profession of teaching, survival is extremely dependent on the induction phase (Camp & Heath-Camp, 1991).

> Organized induction assistance programs can help to make the transition into full-time teaching less traumatic. They can also help in the retention of promising beginning teachers, many of whom leave teaching in frustration during their first year or so on the job (Camp & Heath-Camp, 1991, p. 33).

More specific to career and technical education, Camp & Heath-Camp (1991) reported that approximately a quarter of new vocational teachers' negative influences, positive influences, and significant events were vocational-specific. Ruhland's (2001) study of Minnesota's secondary CTE teachers found those who chose to leave the profession did not rate their first-year teaching experience as positively as those remaining in the profession.

Skills and Abilities

A concern in teacher retention is that teachers do not really learn their craft until they have been teaching at least five to six years. Experimenting with and adapting rules and procedures to employ in the classroom, developing and refining lesson plans, and embracing a sense of community and camaraderie with students and colleagues takes time to master (Glasgow & Hicks, 2003). This research indicates that teacher attrition is occurring before the teacher has the opportunity to invest enough time to develop their skills and abilities.

The pressure for highly qualified teachers may have been increased with the No Child Left Behind Act of 2001. Unfortunately, a definition of teacher quality is debated among researchers and policy analysts. Definitions of teacher quality fall into a number of different categories. Teacher quality may be defined by a teacher's credentials, classroom practices, effectiveness in raising student achievement, or higher teacher achievement on tests (Kennedy, 2008). Kennedy (2008) sorted out some of the confusion surrounding the definition of teacher quality by proposing three groups: personal resources (what teachers bring with them to their jobs), performance (a teachers day-to-day work), and effectiveness (a teachers' impact on students). An outline of teacher quality indicators can be beneficial in preparing highly qualified teachers.

In an effort to design professional learning to encourage teacher mastery, Waddell (2009) found the best teachers engaged students academically while connecting with them emotionally. Based on their content knowledge and student focus, teachers could fall into one of four quadrants: master teacher, technician, caretaker, and struggler (Waddell, 2009). The master teacher not only knows their content and students, but also how to present new material, pre-teach, and re-teach as well as assess student understanding. Waddell (2009) explains that knowing which quadrant a teacher is performing in enables administration to identify what they may need to become a master teacher. Wilhelm (2011) states that "effective teaching certainly involves the *what*, but also considers the *who*—of the teacher, learner, peers, and disciplinary experts—as well as foregrounding the *why*, the *how*, the *when*, and the *where* of actual knowledge construction and use" (p. 51).

Although not an exhaustive listing, Polk (2006) identified ten basic characteristics of effective teachers: good prior academic performance, communication skills, creativity, professionalism, pedagogical knowledge, thorough and appropriate student evaluation and assessment, self-

20

development or lifelong learning, personality, talent or content area knowledge, and the ability to

model concepts in their content area. Polk (2006) explains that teachers serve by example.

Attending professional development opportunities places a teacher in the role of a student,

encouraging learning as well as insight into student perceptions which enhances a teacher's

effectiveness in the classroom. "Effective teaching is not the innate, inborn skill it was once

considered" (Polk, 2006, p. 28) confirming a need for continued learning and development.

Specific to CTE, Sass (2011) explains the important role a teacher plays in reshaping the

image of career and technical education. CTE teachers need to have the ability to build positive

relationships with and among students, actively engage students in a vigorous learning

environment, and connect students to their future. Building positive relationships with students

means CTE teachers get to know their students well by requiring personal inventories, one-on-

one time, and making connections with students' families. Effective CTE teachers know how to

use application, analysis, synthesis and evaluation skills to address real-world problems with

their students. Well-designed authentic projects enable a CTE teacher to connect students with

workplace experiences and the people within that industry (Sass, 2011). "The quality of our

teachers and their capacity to construct rich learning experiences for students represents the

'front line' of our work in CTE" (Sass, 2011, p. 24).

Institutional Factors

The working conditions within schools and districts continue to surface in attrition and

retention literature. Ingersoll and Smith (2003) report that data suggest the root of the teacher

shortage is largely influenced by the working conditions of schools. Specifically, a lack of

administrative support, poor student discipline and student motivation, and a lack of teacher

influence over schoolwide and classroom decision making surfaced as specific areas of concern

in teacher working conditions and job dissatisfaction (Ingersoll & Smith, 2003). "Identifying variables that have a direct effect on teachers' job satisfaction is vital to decreasing teacher attrition and facilitating true reform in education" according to Tickle, Chang and Kim (2011, p. 343). Administrative support and collegiality as well as physical environment influence the overall satisfaction teachers have towards their profession. Looking at the whole environment, both physical and emotional, as well as the initial motivation to pursue teaching as a career is essential in teacher retention (Mulvey & Cooper, 2009). Educational leadership involves the success of human beings, not products or goods and services as in business and industry (Mulvey & Cooper, 2009). Boyd, Grossman, Ing, Lankford, Loeb, and Wyckoff (2011) define administrative support as the extent to which principals and other school leaders make teachers' work easier and help them improve their teaching.

Danielson (1996) developed a framework for teaching that included four domains: (a) planning and preparation, (b) classroom environment, (c) instruction, and (d) professional responsibilities. Within domain 2, the classroom environment, Danielson (1996) explains that although these factors are non-instructional, they are necessary for effective instruction. The components in the classroom environment (domain 2) include creating an environment of respect and rapport, establishing a culture for learning, managing classroom procedures, managing student behavior, and organizing physical space (Danielson, 1996). "Teaching requires good management before good instruction is possible" (Danielson, 1996, p. 83). Ruhland (2001) recommended further research be conducted concerning teaching environment and how to modify it for more encouragement for CTE teachers to remain in the profession.

Ruhland (2001) found that Minnesota CTE teachers rated five work environment related factors extremely important to their choice to continue teaching which reinforces Danielson's

(1996) inclusion of domain 2 in the framework for teaching. The factors related to work environment included positive teaching experience, inner sense of knowing I'm doing a good job, administrative support for program development, adequate time to complete job responsibilities, and perception of job security.

CTE Content Area

Ruhland (2001) recommended further research be conducted to compare the perception of skill level between those teachers choosing to stay in the profession and those choosing to leave for career and technical education teaching areas. The diverse content areas of CTE require individual probing to determine retention factors.

In Bartley and Sneed's (2004) study of Family and Consumer Sciences (FCS) teachers in California, high levels of satisfaction with their teaching careers, leisure activities, and home life were reported. More study was recommended to determine the factors contributing to high levels of satisfaction, how and why teachers achieve satisfaction, and which indicators are most relevant for determining satisfaction (Bartley & Sneed, 2004). Nearly 66% of respondents in Tripp's (2006) study indicated they were "very" satisfied with their current FCS teaching assignment. This knowledge of high satisfaction rates is beneficial for recruitment of potential FCS teachers to fill the current national shortage of FCS teachers. "Universities across the nation have reported declining enrollment in FCS education programs for decades" (Barley & Sneed, 2004, p. 86), confirming the need for improved retention and recruitment. According to Tripp's (2006) study, nearly 62% of the teachers plan to leave their FCS position within 10 years primarily due to retirement. It will be vital to retain the new teachers placed in the classroom to teach FCS in secondary schools across our nation.

In a study on retention of Trade and Industrial teachers (T and I), Self (2001) reported that more of the T and I teachers in the study left teaching due to feelings of dissatisfaction than any other reason. The top reasons for dissatisfaction were lack of recognition and support, student discipline problems, poor student motivation, and poor salary (Self, 2001). Two unique characteristics of T and I teachers were identified by Self (2001): (a) more often than not, they have entered the classroom following significant experience in the workforce, and (b) licensure requirements in many states allow T and I teachers to forego traditional teacher training routes toward certification. Trade and industrial teachers enter the classroom as content level experts from a vast array of on-the-job experiences. When they make the career transition from industry to teaching, they must acquire the competencies needed as a professional teacher (Burns, Schaefer, & Hayden, 2005).

Pairing novice T and I teachers with veteran teachers for the purpose of mentoring was found to be beneficial to both parties in a study by Osgood (2001). The dwindling supply of qualified teachers, including T and I, reinforces the need to increase efforts to slow the attrition rate across the nation.

In a review of literature, Cash, Daines, Doyle & Tettenborn (2009) explore the recruitment and retention of nurse educators. It is well known that there is a global shortage of nurses; however, there is a less obvious and more critical shortage of nurse educators (Cash et al., 2009). The National League for Nursing (2010) reported that "less than an adequate number of nurse educators currently teach in the education pipeline" (p. 1). In 2007, there were more than 1,900 unfilled full-time nursing faculty positions nationwide (NLN, 2010).

The main difficulties identified in filling the high number of vacancies were not enough qualified candidates and an inability to offer competitive salaries (NLN, 2010). Along with

24

salaries, workload and age contribute to the nursing faculty shortage. Many of the respondents in the NLN (2010) study indicated they also had administrative duties along with their teaching responsibilities, resulting in a 56-hour average work week. The question of how workload impacts job satisfaction, recruitment, and attrition remains highly relevant (NLN, 2010). Nurse educators must maintain clinical expertise to teach students in diverse practice areas as well as keep up to speed with rapidly changing health care settings and clinical and teaching technologies (Cash et al., 2009).

Health occupations teachers were included in a study by Kirby and LeBude (1998) on induction processes and retention. In comparison to agriculture teachers and exploring biotechnology teachers, health occupation instructors have a higher level of concern at the task level (Kirby & LeBude, 1998). Those at the task stage are more concerned with managing their time in order to accomplish tasks. Health occupation teachers also placed higher value on continuing their education than agriculture and biotechnology teachers (Kirby & LeBude, 1998). Cash et al. (2009) states that "closer attention to the culture of the work environment and the complexity of the everyday world of nurse educators would increase the insights into how best to recruit and retain them" (p. 319).

"While beginning agriculture teachers experience the challenges similar to other beginning teachers during their initial years, the added expectations of supervising agriculture experience programs (student projects) and advising the FFA (leadership) chapter, increase the demands and the potential for challenges" (Warnick, Thompson, & Tarpley, 2006, p. 601). In a national study of agriculture teachers after completion of their first year, Warnick et al. (2006) reports that most beginning teachers have positive perceptions regarding the overall experience of their first year of teaching. A majority of the participants in Warnick's et al. (2006) study were unsure of their

25

long-term commitment to teaching secondary agriculture. Nearly 90% reported they were likely

or highly likely to be teaching secondary agriculture one year from the survey but fewer than half

reported they were likely or highly likely to be teaching at ten years (Warnick et al., 2006).

In a comparison between beginning and experienced agriculture teachers, Ricketts, Duncan,

and Peake (2006) found that beginning teachers are less efficacious and feel significantly less

competent than experienced teachers on a myriad of competencies in technical agriculture,

teaching and learning, and program management. Participants responded to competency items in

the areas of technical agriculture, teaching and learning and program management in Ricketts' et

al. (2006) study. The authors recommend more professional development and in-service training

for new teachers in these competency areas.

Generally, agriculture teachers are prepared for the classroom through a pre-service

agriculture teacher education program at a higher education institution or through provisional

certification for a person coming into the profession from the private sector and experience

(Croom, 2006). Croom (2006) found no difference between the two types of preparation in the

areas of teacher efficacy, content area knowledge and practice, leadership within the school,

professional reflection, and rapport with the students.

Intent to Stay

The American Heritage Dictionary defines intent as something that is intended; an aim or

purpose. Actually studying turnover is difficult since teachers who have left are difficult to

locate; thus, the study of intent serves as a helpful proxy (Johnsrud & Rosser, 1997). The goal of

Johnsrud and Rosser's (1997) discriminant analysis was to find a minimum number of variables

needed to predict the intent of mid-level administrators staying or leaving their current positions.

The results indicated that a combination of demographic, structural, and perceptual variables

aided in predicting intentions of the population to stay or leave their current position (Johnsrud &

Rosser, 1997).

In a study investigating registered nurses intent to stay or leave employment, McCarthy,

Tyrrell, and Lehane (2007) concluded the intent to leave has serious implications for workforce

planning. McCarthy et al. (2007) recommends investigating the impact of focused interventions

in relation to job satisfaction and kinship responsibilities in order to determine key retention

strategies for nurse managers. Job satisfaction surfaced as a contributing factor affecting intent

to leave in a study on two year college faculty (Rosser & Townsend, 2006). Longer length of

time at an institution, older age, and full-time faculty status where characteristics Rosser &

Townsend (2006) found that demonstrated a commitment to an institution. Honoring this

commitment can improve faculty retention at community colleges (Rosser & Townsend, 2006).

Chapter 3: Methodology

The purpose of this quantitative study was to test a proposed model of the influences

associated with career and technical education teacher retention. Originally, Chapman (1984)

developed a model of the influences on teacher attrition based on Holland's (1950) theory of

vocational choice and Krumboltz's (1976) social learning theory. Ruhland (2001) developed a

survey to identify factors influencing turnover and retention of Minnesota's secondary career and

technical teachers based on Chapman's (1984) six functions of teacher retention outlined in his

model (see Appendix A). Following a descriptive study of secondary trade and industrial teacher

retention in the state of Kansas, Su et al. (2011) developed a model outlining the influences on

retention based on Chapman's (1984) model, Ruhland's (2001) survey and Dainty and Belcher's

(2008) study on the retention of family and consumer sciences teachers in Kansas. Su's et al.

(2011) model includes six influential factors of educational preparation, teacher commitment,

first year teaching experience, institutional factors, social integration and skills and abilities. The

proposed model for this study (see Figure 1) presents an additional influential factor of content

area to the existing six for a total of seven factors. The data set contains responses from four

prominent CTE areas in the State of Kansas: family and consumer sciences, trade and industry,

health occupations, and agriculture. Descriptive findings will be reported for each CTE area to

identify the perceptions of the respondents to the influential factors. A discriminate analysis was

conducted to study the influence of the seven independent variables: (1) educational preparation,

(2) teacher commitment, (3) social interaction, (4) first year teaching experience, (5) skills and

abilities, (6) institutional factors, and (7) CTE content area on the dependent variable of those

who stay in and those who leave the teaching profession. Reducing the collinearity of the

independent variables and having one dichotomous dependent variable was the reason for

choosing to do a discriminate analysis.

Figure 1: Proposed Model of the Influences Associated with Secondary Career and Technical Education Teacher Retention

Educational Preparation

-Teacher preparation program

-Teaching methods

-Classroom technology use

-Curriculum development

Teacher Commitment

-Improving student performance & engagement

-Reputation of the school

-Updating classroom content

-Incorporating new ideas into the classroom

Social Integration

-Gaining student respect

-Administrative relationships

Secondary Career & Technical Education Teacher Retention

Content Area

-Family & Consumer Sciences

-Trade & Industrial

-Health Occupations

-Agriculture

First Year Teaching Experience

-Performing Administrative tasks

-Selecting Course content for lectures

-Managing classroom time, student behaviors, & extra duty assignments

Skills & Abilities

-Knowledge of content

-Communication with students, students' families, school administrators, & community members

-Teaching methodologies

Institutional Factors

-Support from school

-Approval of family and close friends

-Relationships with peers, students, & student organizations

The following three research questions were addressed in this study:

1. How do CTE teachers rate their educational preparation, their commitment to teaching, their first year teaching experience, and their skills and abilities in their current teaching position?

2. How do CTE teachers rate the importance of social interaction factors and institutional factors related to their teaching career?

3. How well do the discriminate variables of educational preparation, teacher commitment, social interaction, first year teaching experience, skills and abilities, institutional factors, and CTE content area predict the intent of career and technical teachers staying in the teaching profession?

Variables

The dependent variable in this study will be the selection to stay in or leave the teaching profession. The independent variables are as follows:

1. *Educational preparation*: includes teacher preparation programs, teaching methods, classroom technology use, curriculum development, classroom management, student assessments, special needs students, and student organizations.

2. *Teacher commitment*: encompasses improving student performance and engagement, reputation of the school, updating classroom content, incorporating new ideas into the classroom, supporting students, extra tasks that benefit the school, and developing relationships with students' families.

3. *Social interaction*: includes gaining student respect, administrative relationships, fitting into the school community, collegiality, and parental relationships.

4. *First year teaching experience*: includes an instructor's experience performing administrative tasks, selecting course content for lectures, managing classroom time, student behaviors, extra duty assignments, and developing curriculum.

5. *Skills and abilities*: includes an educator's knowledge of content, communication with students, families, school administrators, and community members, and teaching methodologies.

6. *Institutional factors*: includes support from school, approval of family and close friends, and relationship with peers, students, and student organizations.

7. *CTE content area*: includes the career and technical education areas of family and consumer sciences, trade and industrial, health occupations, and agriculture.

Population

Four prominent career and technical areas of family and consumer sciences, trade and industrial, health occupations, and agriculture in the state of Kansas were chosen for the study. A census, defined as an attempt to acquire data from every member of a population (Fraenkel & Wallen, 2003), of each CTE area was surveyed. Participants for the areas of family and consumer sciences, trade and industrial, and health occupations were acquired from the Kansas State Department of Education website. The Kansas Association of Agriculture Educators provided the listing of agriculture teachers in the state of Kansas. A total of 514 family and consumer sciences secondary teachers, 328 trades and industrial secondary teachers, 41 health occupations secondary teachers, and 184 secondary agriculture teachers were surveyed. For clarification, there are eleven areas that have approved trade and industrial programs in the state of Kansas (KSDE website, 2009). The following eleven areas were included in the trade and industrial population: (a) Automotive Body Repair, (b) Automotive Mechanics, (c) Cabinetry,

(d) Carpentry, (e) Computer Programming, (f) Graphic Design Communication Art, (g) Graphics/Printing Equipment Operator, (h) Heating Air Conditioning Refrigeration Mechanic, (i) Precision Metal Work, (j) Small Engine Repair, and (k) Welding.

Instrumentation

A survey instrument was developed using items from four previous studies (Chapman, 1984, Ruhland, 2001, Hausman, 2001, & Louis, 1998). Chapman's (1984) model (see Appendix A) provided a basis for category selection. The categories identified in Chapman's (1984) model were educational preparation, initial commitment to teaching, quality of first year employment experience, social integration into teaching, and external influences. Ruhland (2001) expanded on this model to develop a survey to determine factors influencing the turnover and retention of Minnesota's secondary career and technical education teachers with the categories of educational preparation, teaching experience, skills and abilities, and institutional factors. Survey questions relating to educational preparation, first year teaching, and teacher commitment were expanded with permission (see Appendix B) from Ruhland's (2001) instrument to include related items identified in Hausman's (2001) study on teacher commitment. Some items included in these expansions were pulled from the Interstate New Teacher Assessment and Support Consortium (INTASC) standards (Danielson, 1996). Items used to expand the teacher commitment category were adapted from the study by Louis (1998). Likert-type scales were used to measure items other than demographics. Educational preparation (9 items) and social integration items (5) were measured using the following four point scale: 1=poor, 2=fair, 3=good, 4=excellent. Teacher commitment (9 items), first year teaching experience (6 items), and skills and abilities (21 items) were measured using the following five point scale: 1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree. Institutional factors (29 items) were measured using

the following five point scale: 1=not important, 2=somewhat important, 3=important, 4=very important, 5=extremely important. As a part of the demographics section, respondents were asked if they planned to continue teaching in their future (item number 89) with a yes or no response.

A panel of experts was used to establish content and face validity for the survey prior to the initial use in Dainty and Belcher's (2008) data collection in the CTE content area of family and consumer sciences. The panel consisted of eight current secondary Family and Consumer Sciences teachers, one graduate FCS student, and one college FCS teacher education instructor. The panel was asked to review the survey format for readability (see Appendix C). Suggestions were requested regarding improvement on how questions and statements were written, the meaning of questions and statements, and the need to add or delete items. A change in scale was made to the skills and abilities category as suggested by the panel. In Ruhland's study, skills and abilities items were measured with the following 5 points scale: 1=very poor/nonexistent, 2=poor, 3=fair, 4=good, 5=excellent. Rather than rating their personal abilities, an agreement scale to measure respondents' perception of the items was chosen. It was recommended that post-secondary involvement in student career and technical education (CTE) organizations be included in the item pertaining to student organizations in CTE as well as secondary. Additionally, restating the approach to social integration to address the reality of the respondents' experience instead of their perception was suggested.

Once revisions were made to the instrument (see Appendix J) it was compiled in SurveyMonkey to be electronically distributed to 66 Kansas family and consumer sciences instructors for a pilot test. Internal consistencies were measured by calculating a Cronbach's

33

Alpha for each section of the survey, which ranged from r=.763 to r=.899. Participants in the pilot study were not included in the FCS population.

Data Collection

Existing data for the CTE areas of family and consumer sciences, health occupations and trade and industrial were used in this study. Data were collected by the researcher for the CTE area of agriculture.

Data were collected in the spring of 2008 on secondary family and consumer sciences teachers in the state of Kansas. Surveys were distributed via e-mail through the use of Survey Monkey®. A modified Dillman (2000) approach was followed in the number of contacts with the participants. After the first distribution of surveys, a second distribution was sent one week later to those yet to respond. A final reminder was sent two weeks following the first e-mailing to all non-respondents. The responses were tracked in Survey Monkey®, maintaining confidentiality. The respondents without e-mail addresses listed on school websites were sent hard copies of the survey through the United States Postal Service. The overall rate of return was 52.7%.

The population of health occupations teachers in Kansas secondary schools was a smaller group of 41. Hard copy surveys were sent with a self-addressed stamped envelope and a cover letter (see Appendix G) in the spring of 2009. A second mailing was distributed with a follow letter (see Appendix H) resulting in a final rate of return of 47%.

In the fall of 2009, trade and industrial teachers were surveyed. A census was conducted of 328 teachers. A letter of introduction and appreciation (see Appendix E) along with a self-addressed stamped envelope (SASE) was sent to the population. Four weeks after the first mailing, those population members who had yet to respond were sent a second letter of

encouragement and appreciation (see Appendix F) along with a survey and SASE. To control

for non-response error, a random sample of the non-respondents (n=146) was selected using a

computer generated list of random numbers assigned to members of the non-respondent group.

Non-respondents were self-selected by not responding to the survey instrument within the initial

four week data collection phase. In accordance with recommendations provided by Miller and

Smith (1983), 35 members of the non-respondent group made up the 10-20% to control for non-

response error. The non-respondents were contacted by telephone and encouraged to complete

and return the survey instrument. If needed, a survey and SASE was mailed to them. Seven

weeks after initiating the non-response follow-up, the non-respondents (n=19) were sent another

survey and SASE. A total of 23 responses were collected from the non-respondent group for a

total response rate of 65.7%. The non-respondents were compared to the respondents and no

statistical differences were found.

For this study, the final group of CTE teachers in the content area of agriculture included was

surveyed. Names and contact information were obtained from the Kansas Association of

Agriculture Educators (KAAE). Surveys were distributed to 184 participants through the use of

Survey Monkey® in the fall of 2011. As Dillman (2000) outlines for internet based survey

practices, a multiple contact strategy was utilized. A pre-contact e-mail was sent to the

participants explaining the purpose of the survey and study from the 2011-2012 President-elect

of the KAAE, Alan Boultinghouse. Electronic surveys were distributed one week following the

pre-contact as an e-mail with an active link to the survey embedded (see Appendix I). A

reminder was then sent to participants who had not completed the survey one week following the

initial distribution. Another reminder e-mail was sent one week after the first reminder to non-

respondents at that time. Finally, an e-mail thanking the participants was sent four weeks

following the initial survey distribution. The distribution of the survey with reminders completes the four points of contact explained by Dillman (2000). The survey responses were tracked electronically in Survey Monkey® maintaining confidentiality. The final rate of return was 57%.

Data Analysis

Using SPSS software, descriptive analysis was run on the data collected from the Kansas CTE teachers in the four areas of family and consumer sciences, trade and industry, health occupations, and agriculture. Frequencies and percentages were calculated on the educational level responses. Means and standard deviations are reported for the remaining categories of educational preparation, teacher commitment, social interaction, first year teaching experience, skills and abilities, and institutional factors. This process addressed research questions one and two.

Data from all four CTE areas, family and consumer sciences, health occupations, trade and industrial and agriculture, was used in the statistical technique of discriminate analysis. Using the yes or no answer from survey question number 89 to group participants as stayers or leavers, research question number three was addressed. The six categories of the survey plus the CTE content area are the independent variables of this study: educational preparation, teacher commitment, social integration, first year teaching experience, skills and abilities, institutional factors, and CTE content area. Discriminate analysis was chosen as the appropriate statistical technique due to the need to reduce collinearity between independent variables and discriminate between those teachers who plan to stay or leave the profession using the data for the independent variables.

Chapter 4: Findings

The purpose of this research study was to determine factors contributing to the retention of secondary career and technical education (CTE) teachers in the state of Kansas and predict the influence of the determined factors on secondary CTE teachers' intent to stay in or leave the profession. Quantitative data collected from the four CTE areas of family and consumer sciences, trade and industrial, health occupations and agriculture were analyzed through descriptive statistics to determine the influence of the factors. A discriminate analysis was used for measuring predictability of the participants' intent to stay in or leave the profession. The results will be presented in this chapter based on the following research questions.

1. How do CTE teachers rate their educational preparation, their commitment to teaching, their first year teaching experience, and their skills and abilities in their current teaching position?

2. How do CTE teachers rate the importance of social interaction factors and institutional factors related to their teaching career?

3. How well do the discriminate variables of educational preparation, teacher commitment, social interaction, first year teaching experience, skills and abilities, institutional factors, and CTE content area predict the intent of career and technical teachers staying in the teaching profession?

Educational Preparation

Secondary CTE teachers in Kansas perceived their overall educational preparation as good based on the findings reported in Table 1. Nine items pertaining to the participant's educational preparation were expanded from Ruhland's (2001) survey instrument used in Minnesota to make up this construct. The following four point scale was used: 1=poor, 2=fair, 3=good and

4=excellent. Mean scores for the items fell into the four point scale as follows: up to 1.49 as

poor, 1.5 to 2.49 as fair, 2.5 to 3.49 as good and 3.5 and up as excellent. The two items rating

highest were their academic performance (M=3.29, SD=.659) and preparation in teaching

methods (M=3.04, SD=.720). Items at the bottom of the good rating were preparation in student

organizations (M=2.51, SD=.971) and addressing student special needs (M=2.5, SD=.562).

None of the items in the educational preparation category were rated as excellent. The

summated mean for the educational preparation construct is 2.798 (SD=.561) which indicates

that these respondents felt "good" overall about their educational preparation.

Table 1

Educational Preparation

Item	Mean	Std. Deviation
My academic performance in the preparation program	3.29	.659
My educational preparation in teaching methods	3.04	.720
My educational preparation in curriculum development	2.92	.774
My educational preparation in classroom management	2.78	.853
My educational preparation in student learning styles	2.77	.873
My educational preparation in student assessments	2.71	.747
My educational preparation in classroom technology use	2.68	.925
My educational preparation in student organizations	2.51	.971
My educational preparation in addressing student special needs	2.50	.861
Educational preparation summated mean	2.7984	.56159

Note. Rating scale used: 1=Poor, 2=Fair, 3=Good, 4=Excellent

Teacher Commitment

Nine items adapted from Louis' (1998) study were used to rate the category of teacher

commitment. A five point Likert-type scale was used: 1=strongly disagree, 2=disagree,

3=undecided, 4=agree, and 5=strongly agree. Items with a mean up to 1.49 were strongly

disagree, 1.5 to 2.49 were disagree, 2.5 to 3.49 were undecided, 3.4 to 4.49 were agree and 4.5

and up were strongly agree. Table 2 shows that CTE teachers strongly agreed with their

commitment in the areas of improved student performance (M=4.58, SD=.574), importance of

the school's reputation (M=4.55, SD=.670), and improving student engagement in classroom

activities (M=4.55, SD=.571). The item rated the lowest by the respondents was developing

relationships with families to better understand individual students (M=3.71, SD=.926). The

summated mean for the construct of teacher commitment was 4.308 (SD=.495) which indicated

that these teachers tended to "agree" with the items about teacher commitment.

Table 2

Teacher Commitment

Item	Mean	Std. Deviation
I strive to improve student performance	4.58	.574
The reputation of this school is important to me	4.55	.670
I strive to improve student engagement in classroom activities	4.55	.571
I tend to incorporate new ideas in the classroom for more effective teaching	4.37	.677
I tend to access current resources to update classroom content	4.36	.692
I tend to be sensitive to adolescent issues concerning students	4.30	.741
I spend time on extracurricular activities to help support student	4.29	.906
I tend to volunteer for extra tasks that will benefit the school	4.06	.898
I spend time developing relationships with families to better understand individual students	3.71	.926
Teacher commitment summated mean	4.3089	.49513

Note. Rating Scale used: 1=Strongly disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly
agree.

First Year Teaching Experience

   To measure the first year teaching experience, Ruhland's (2001) one item was expanded to

six using the following scale for each item: 1=strongly disagree, 2=disagree, 3=undecided,

4=agree and 5=strongly agree. Items measuring the first year teaching experience with a mean

up to 1.49 were rated as strongly disagree, 1.5 to 2.49 as disagree, 2.5 to 3.49 as undecided, 3.5

to 4.49 as agree, and 4.5 up as strongly agree. When responding to items pertaining to the first

year teaching experience, participants did not strongly agree with any of the six items. CTE

teachers agreed with five of the items with their ability to select valid course content for lectures

(M=4.06, SD=.725) as the highest as shown in Table 3. The item receiving the lowest rating was

confidence in curriculum development (M=3.49, SD=1.060). Overall, the summated mean for

the first year teaching experience was 3.778 (SD=.660), which indicates that these teachers

tended to "agree" with items about their first year teaching experience.

Table 3

First Year Teaching Experience

Item	Mean	Std. Deviation
I selected valid course content for lectures	4.06	.725
I efficiently performed administrative tasks (grades, scheduling, purchase orders, etc.)	3.99	.896
I used classroom time wisely	3.83	.860
Extra duty assignments were manageable	3.72	.954
I managed student behaviors effectively	3.59	.988
I felt confident in curriculum development	3.49	1.060
First Year Teaching Experience summated mean	3.7781	.66084

Note. Rating Scale used: 1=Strongly disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly agree.

Skills and Abilities

    Table 4 shows the twenty one items used to measure skills and abilities of CTE teachers.

Using the 5 point Likert-type scale of 1=strongly disagree, 2=disagree, 3=undecided, 4=agree

and 5=strongly agree, participants rated only one item as strongly agreed; knowledge of the

content area (M=4.55, SD=.590). The remaining items fell into the agree category of the rating

scale. The item rated lowest was having a solid knowledge of resources available pertaining to

students with special needs (M=3.66, SD=.876). Items with a mean up to 1.49 fell into the rating

of strongly disagree, 1.5 to 2.49 as disagree, 2.5 to 3.49 as undecided, 3.5 to 4.49 as agree, and

4.5 up as strongly agree. The summated mean for the skills and abilities construct was 4.168

(SD=.419) which indicated that teachers tended to "agree" with items about their skills and

abilities.

Table 4

Skills and Abilities

Item	Mean	Std. Deviation
I have a solid knowledge of content	4.55	.590
I feel I adequately manage classroom procedures	4.36	.604
I have good communication with school administrators	4.34	.671
I incorporate questioning and discussion techniques	4.34	.592
I feel my oral communication skills are clear	4.32	.594
I feel I adequately manage student behavior	4.30	.615
I feel my written communication skills are clear	4.29	.621
I feel I adequately engage students in the learning process	4.28	.589
I successfully integrate technology into the curriculum	4.21	.762
I have a solid knowledge of resources available for classroom and lab use	4.18	.690
I feel I adequately assess student learning	4.18	.617
I have a solid knowledge of teaching methodologies	4.15	.719
I feel I have adequate organization of physical space	4.12	.845
I have a solid knowledge of student learning styles	4.12	.732
I tend to use reflection on teaching for improvement	4.11	.750
I have good communication with community members	4.07	.773
I feel my instructional preparation is adequate	4.05	.771
I feel my instructional planning is adequate	4.03	.784
I have good communication with students' families	3.95	.738
I tend to use instructional goals for the lessons I teach	3.93	.826
I have a solid knowledge of resources available pertaining to students with special needs	3.66	.876
Skills and Abilities summated mean	4.1686	.41932

Note. Rating Scale used: 1=Strongly disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly agree

Social Integration

   Five items made up the construct of social integration. Respondents were asked to rate each

item using the following scale: 1=not important, 2=somewhat important, 3=important, 4=very

important and 5=extremely important. Means up to 1.49 were rated as not important, 1.5 to 2.49

were somewhat important, 2.5 to 3.49 were important, and 3.5 to 4.49 were very important and

4.5 up was extremely important to the participants. As Table 5 shows, one item was rated as

extremely important; gaining student respect (M=4.61, SD=.572). The remaining four items

were rated as very important. The lowest rated item was parental relationships (M=4.01

SD=.577). The summated mean for the construct of social integration was 4.217 (SD=.576)

which indicates that teachers felt items concerning social integration were very important.

Table 5

Social Integration

Item	Mean	Std. Deviation
Gaining student respect	4.61	.572
Administrative relationships	4.30	.744
Fitting into the school community	4.11	.840
Getting to know my colleagues	4.06	.849
Parental relationships	4.01	.811
Social integration summated mean	4.2177	.57663

Note. Rating Scale used: 1=Not important, 2=Somewhat important, 3=Important, 4=Very important, 5=Extremely important.

Institutional Factors

The category of institutional factors was comprised of thirty items. CTE teachers rated the items using a five point Likert scale of not important, somewhat important, important, very important and extremely important. Items with a mean up to 1.49 rated not important, 1.5 to 2.49 rated somewhat important, 2.5 to 3.49 rated important, 3.5 to 4.49 very important, and 4.5 up were extremely important. One item surfaced as extremely important for these participants; an inner sense of knowing I am doing a good job (M=4.50, SD=.632). As reported in Table 6, twenty four of the items in the institutional factors construct were rated as very important and five were important. The lowest rated items were availability of induction/mentoring program (M=3.24, SD=1.17), type of induction/mentoring program (M=3.16, SD=1.18) and participation in professional organizations (M=3.10, SD=1.19). The summated mean for the institutional factors construct was 3.90 (SD=.544) which indicates these teachers tended to find these items about institutional factors as very important.

Table 6

Institutional Factors

Item	Mean	Std. Deviation
Inner sense of knowing I'm doing a good job	4.50	.632
Positive teaching experiences	4.44	.653
Administrative support for program development	4.41	.731
Pleasant working conditions	4.38	.672
Adequate time to complete job responsibilities	4.36	.703
Safety issues of equipment	4.31	.835
Quality of required equipment	4.25	.732
Safety issues of facilities	4.24	.863
Adequacy of laboratory facilities	4.20	.793
Quality of resources available	4.20	.715
Perception of job security	4.18	.853
Potential for salary increases	4.18	.929
Quantity of required equipment	4.14	.794
Adequacy of classroom/lab facilities	4.13	.816
Community support for program development	4.02	.865
Quantity of resources available	3.99	.767
Chance to contribute to important decisions	3.97	.847
Recognition by students	3.90	.942
Approval of family and/or close friends	3.79	1.013
Recognition by supervisors/administrators	3.78	1.061
Career opportunities in industry	3.65	1.102
Professional development opportunities	3.64	1.014
Leadership opportunities	3.62	1.014
Recognition by peers	3.59	1.073
Location of classroom/lab in school	3.35	1.224
Responsibilities related to student organizations	3.34	1.134
Contact with educational preparation program	3.31	1.090
Availability of induction/mentoring program	3.24	1.177
Type of induction/mentoring program	3.16	1.187
Participation in professional associations	3.10	1.199
Institutional Factors summated mean	3.9092	.54473

Note. Rating Scale used: 1=Not important, 2=Somewhat important, 3=Important, 4=Very important, 5=Extremely important.

Educational Level

Data was collected as a part of the educational preparation on the highest educational level respondents had attained. The largest percentage of the respondents held a Bachelors (n=209, 35%) or Masters Degree (n=233, 39%). Respondents attaining a Bachelors with a provisional teaching certificate was the third highest category (n=89, 15%). The following table outlines the educational level of the respondents in this research study.

Table 7

Educational Level Attained

	Item	Frequency	Percent
Valid	High School diploma w/provisional teaching certification	5	.8
	Associates w/provisional teaching certificate	4	.7
	Bachelor's	209	35.1
	Bachelor's w/provisional teaching certificate	89	14.9
	Master's	233	39.1
	Master's w/provisional teaching certificate	30	5.0
	Doctorate	1	.2
	Other	2	.3
	Total	573	96.1
Missing	99	23	3.9
Total		596	100.0

In order to address the concerns of potential differences in the responses from a traditionally licensed teacher and one who is provisionally certified, the summated means of each construct measured was compared in each category. As reported in table 8, minimal difference if any, surfaced between these two groups of teachers.

Table 8

Comparison of Educational Level

Factor	Certification type	N	Mean	Std. Deviation
Educational Preparation Summated Mean	Provisional Certified	128	2.8444	.58534
	Regular Certified	441	2.7885	.54422
Teacher Commitment Summated Mean	Provisional Certified	125	4.2882	.47599
	Regular Certified	440	4.3127	.50038
Social Integration Summated Mean	Provisional Certified	125	4.1696	.58035
	Regular Certified	439	4.2392	.57363
First Year Teaching Experience Summated Mean	Provisional Certified	125	3.7928	.58421
	Regular Certified	437	3.7693	.68319
Skills and Abilities Summated Mean	Provisional Certified	125	4.0923	.43923
	Regular Certified	432	4.1830	.41067
Institutional Factors Summated Mean	Provisional Certified	124	3.9239	.51070
	Regular Certified	430	3.9004	.54287

Discriminate Analysis

Using SPSS, a discriminate analysis was performed to predict Kansas secondary CTE teachers' intent to stay or leave the profession based on the independent variables of educational preparation, teacher commitment, social integration, first year teaching experience, skills and abilities, institutional factors, and CTE content area. This analysis addresses the following hypothesis:

HO: The identified independent variate has no influence on predicting the CTE teacher's intent to stay in or leave the profession of teaching.

As shown in Table 9, those respondents planning to stay in the profession of CTE teacher rated educational preparation (M=2.81, SD=.55), teacher commitment (M=4.33, SD=.49), social integration (M=4.24, SD=.55), first year teaching experience (M=3.79, SD=.67), and institutional factors (M=3.91, SD=.55) higher than those who plan to leave the profession of

teaching. The only area where those who were planning to leave the profession gave a higher rating than those planning to stay was skills and abilities (M=4.19, SD=.42).

Table 9

Discriminating Variables Means and Standard Deviations

Factor	Yes (n= 500)		No (n=60)	
In your future career plans, do you plan to continue teaching?	Mean	Std. Deviation	Mean	Std. Deviation
Educational Preparation (EDPREP)	2.8102	.55080	2.7907	.60724
Teacher Commitment (TCOMM)	4.3295	.48920	4.2352	.48716
Social Integration (SOCINT)	4.2432	.54890	4.1000	.72580
First Year Teaching Experience (FIRYR)	3.7948	.67137	3.6444	.63221
Skills and Abilities (SKAB)	4.1736	.41599	4.1879	.42144
Institutional Factors (INFAC)	3.9193	.55056	3.8703	.47117

Note. Content area was not included in this table since they are nominal data.

Hair, Anderson, Tatham, and Black (1995) define collinearity as the relationship between two independent variables. Complete collinearity is exhibited by a correlation coefficient of 1 and a correlation coefficient of 0 represents a complete lack of collinearity. Hair et al. (1995) explains high correlations of .90 and above is an indication of substantial collinearity. As evidenced in the pooled within-groups correlation matrix (see Table 10), correlations remained below .50. The independent variable of social integration showed a correlation with teacher commitment of .412. First year teaching experience exhibited collinearity with educational preparation with a correlation of .370. Institutional factors showed the highest collinearity with social integration with a correlation of .460. Teacher commitment (.336) and skills and abilities (.354) also

showed collinearity with the variable of institutional factors. Skills and abilities exhibited above

.30 correlations with four of the six variables measured in the matrix: educational preparation

(.316), teacher commitment (.457), social integration (.315), and first year teaching experience

(.421). The content areas of family and consumer sciences (FACS), trade and industry (T & I),

health occupations (HO), and agriculture (AG) showed minimal collinearity with the six

independent variables. The content areas were dummy coded in the data input process as

recommended by Newton and Rudestam (1999). Each content area was set up as a dichotomous

variable of in the group or out of the group. Respondents 'in the group" were given the dummy

code of 1 and those "out of the group" were coded as 0. Overall, correlations between the

discriminating variables were minimal with the highest correlations being .460 between

institutional factors and social integration.

Table 10

Intercorrelations among Discriminating Variables

	Pooled Within-Groups Correlation Matrix (n = 560)					
	EDPREP	TCOMM	SOCINT	FIRYR	SKAB	INFAC
EDPREP	1.000					
TCOMM	.187	1.000				
SOCINT	.197	.412	1.000			
FIRYR	.370	.180	.154	1.000		
SKAB	.316	.457	.315	.421	1.000	
INFAC	.159	.336	.460	.247	.354	1.000
FACS	-.130	.194	.050	.053	.105	.068
T & I	.057	-.187	-.111	-.067	-.033	-.074
HO	.057	.048	.066	.068	.040	.124
AG	.068	-.043	.040	-.021	-.117	-.059

Norusis (1990) stated that large eigenvalues are associated with "good" functions. The small eigenvalue of .019 representing the ratio of the between-groups to within-groups sums of squares indicates a lack of "good" function in this analysis. The standardized discriminant function coefficients of the independent variables influenced the low eigenvalue. Positive, higher weights increase the eigenvalue where negative, lower coefficients decrease the eigenvalue. In this study, teacher commitment (.488), social integration (.556), and first year teaching (.710) had the most influence on the discriminant function. The variables with lower negative coefficients, educational preparation (-.204), skills and abilities (-.640), institutional factors (-.144), family and consumer sciences (-.274) and trade and industrial (-.054), contributed to the lower eigenvalue in this study (see Table 11).

The within-groups structure coefficients indicate how the discriminating variables and the discriminant scores are correlated within groups. Some meaning can be concluded from the structure coefficient scores over .30 (see Table 11). Teacher commitment (.433), social integration (.564), and first year teaching experience (.506) have a higher relation to the discriminant function.

The large Wilk's Lambda (.981) indicates that group means do not appear to be different between the stayers and leavers groups of this study. Since the probability (p=.316) is greater than alpha (.05), the researcher failed to reject the null hypothesis for this study. The identified independent variate has no influence on predicting the CTE teacher's intent to stay or leave the profession of teaching.

Table 11

Summary Data for Discriminant Analysis

	Discriminant Function1		Group	Centroids
	b	s		
EDPREP	-.204	.079	Stayers	.048
TCOMM	.488	.433	Leavers	-.398
SOCINT	.556	.564		
FIRYR	.710	.506		
SKAB	-.640	-.077		
INFAC	-.144	.203		
FACS	-.274	-.166		
T & I	-.054	-.088		
HO	.198	.309		
AG[a]		.165		

	Eigenvalue	R_c	Wilks' Lambda	p
	.019	.137	.981	.316

b = standardized discriminant function coefficient

s = within-groups structure coefficient

R_c=canonical correlation coefficient

a = this variable was not used in the analysis.

Chapter 5: Conclusions and Recommendations

Summary

Since teacher shortage is in large part a demand problem, we can only decrease demand by

increasing retention (Cochran-Smith, 2004). The purpose of this study was to identify factors

contributing to teacher retention specifically in the area of career and technical education. As

much as one-fourth of the problems experienced by beginning CTE teachers are unique to their

career and technical area (Camp & Heath, 1989). The following questions guided the study.

1. How do CTE teachers rate their educational preparation, their commitment to teaching,

    their first year teaching experience, and their skills and abilities in their current teaching

    position?

2. How do CTE teachers rate the importance of social interaction factors and institutional

    factors related to their teaching career?

3. How well do the discriminate variables of educational preparation, teacher commitment,

    social interaction, first year teaching experience, skills and abilities, institutional factors,

    and CTE content area predict the intent of career and technical teachers staying in the

    teaching profession?

Ruhland's (2001) study of secondary Minnesota CTE teachers provided a basic framework

for this study. The four areas of family and consumer sciences, trade and industrial, health

occupations, and agriculture represented CTE in this study. Data was collected from a census

population in each area in the state of Kansas using a ninety item survey. The survey used in this

study was adapted from Ruhland's (2001) study with permission. Likert-type scales were used

to measure items other than demographics. After piloting the instrument with a panel of experts,

revisions were made to improve content and face validity. Data collection began in the spring of

2008 with the family and consumer sciences secondary teachers in the state of Kansas and was

completed in the fall of 2011 with Kansas secondary agriculture teachers. A combination of

electronic distribution and hard copy mailings was used following Dillman's (2000)

recommendations regarding the number of contacts with participants. The response rates for the

four CTE areas ranged from 47% to 65.7%. Descriptive statistics were performed on the data

using SPSS to address the first two research questions of this study. In order to measure intent as

stated in research question number 3, a discriminant analysis was used. This method of data

analysis was used to determine the amount of predictability of the dependant variable using

multiple independent variables.

Major Findings

The major findings of this study are presented by independent variable as they appear in the

research questions. The following information summarizes the relevant findings.

Educational preparation.

Overall, secondary CTE teachers in the state of Kansas perceived their educational

preparation as good (M=2.79, SD=.561) on a four point scale. The construct of educational

preparation was developed to determine how current CTE teachers rate their experience in order

to determine weaknesses and strengths of teacher preparation programs. Of the nine items in this

category, none were rated as excellent for the respondents in their preparation for teaching.

Respondents rated their own academic performance in their educational preparation program

(M=3.29, SD=.659) highest. The lowest rated areas for educational preparation for Kansas CTE

teachers fell in the categories of student organizations (M=2.51, SD=.971) and addressing

students with special needs (M=2.50, SD=.861). In comparing the responses of those planning

to continue to teach and those not planning to continue teaching, both felt their educational

preparation was good. Ruhland (2001) measured this category by having respondents reply to two questions pertaining to their educational preparation. First they were asked to rate their educational preparation overall by selecting excellent, good, fair or poor. Second, the participants were asked to answer yes, no, or currently not teaching to their belief of whether they are currently utilizing their education in their current teaching position. Ruhland (2001) did not address educational preparation in her research questions; however, classroom management issues surfaced as the number two reason cited for leaving the teaching profession. Classroom management was included as one of the items in the educational preparation construct in this study. Chapman (1986) found it unlikely that attrition was related to educational preparation program inadequacies, with the exception of support during student teaching. In comparing the ratings of the stayers and leavers, both groups perceived their educational preparation as good with very little difference.

Teacher commitment.

Ruhland (2001) addressed this factor by asking participants to rate their commitment level as extremely committed, above average commitment, some commitment, and no commitment. The findings indicated that those respondents remaining in the teaching profession rated their commitment as extremely committed and those choosing to leave fell into the category of some commitment. In an attempt to build a construct for the teacher commitment category, nine items were used to measure the perceptions of CTE teachers' commitment to the profession in this study. The items were designed from Louis' (1998) study on commitment in order to specifically identify areas influencing teacher commitment in CTE. Overall, on a five point scale the respondents agreed with their commitment (M=4.30, SD=.495) to the areas addressed. Improving student performance (M=4.58, SD=.574), reputation of the school (M=4.55,

54

SD=.670), and improving student engagement in classroom activities (M=4.55, SD=.571) rated as strongly agreed. All items were either agreed upon or strongly agreed upon. The lowest rated item was developing relationships with families to better understand individual students (M=3.71, SD=.926). Secondary CTE teachers employed at the time of data collection confirm the importance of teacher commitment to retention in the profession. In comparing the leavers and stayers, both groups rated their commitment overall as agree.

First year teaching experience.

Six items were used in rating the first year teaching experience of Kansas CTE teachers. Using a five point scale, participants found they agreed with all items (M=3.77, SD=.660). Selecting valid course content for lectures (M=4.06, SD=.725) and performing administrative tasks (M=3.99, SD=.896) were rated the highest with confidence in curriculum development (M=3.49, SD=1.06) rating the lowest. Ruhland (2001) found a significant difference between teachers choosing to leave and those remaining in the profession concerning their first year teaching experience. The Minnesota teachers in Ruhland's (2001) study rated their first year experience on a 5-point scale: 1=extremely positive, 2=very positive, 3=positive, 4=somewhat positive and 5=poor experience. Those choosing to leave rated their first year experience less positive than those remaining in the profession. Both the stayers and leavers in this study agreed with the six items measuring first year teaching experience. The rationale for using a six item construct to measure first year teaching experience as compared to Ruhland's (2001) single item rating was to determine specific areas of focus in this category. An expectation for new teachers to perform as a veteran teacher without the support and assistance needed contributes to a feeling of being lost (Camp & Heath-Camp, 1991). Those choosing to stay and those choosing to leave

the profession of teaching agreed with their abilities in their first year of teaching with little difference.

Skills and abilities.

The perception of one's skills and abilities in a profession has an impact on job satisfaction. Twenty one items were used to determine how Kansas secondary CTE teachers perceived their skills and abilities on five point scale. Overall, the participants agreed they possessed the skills and abilities (M=4.16, SD=.419) included in the survey. One item was strongly agreed upon as a skill and ability; knowledge of content area (M=4.55, SD=.590). At the opposite spectrum, having a solid knowledge of resources available pertaining to special needs students (M=3.66, SD=.876) rated the lowest of the twenty one items. Ruhland (2001) found significant difference between the stayers and leavers with regard to their perception of skill level. In comparing the stayers and leavers in this study, both groups agreed in their skills and abilities with minimal difference.

Social integration.

Chapman (1983) found that social integration is a particularly complicated construct due to the considerable isolation of teachers from their peers. Participants in this study were asked to rate six items pertaining to social integration based on importance on a five point scale. Gaining student respect (M=4.61, SD=.572) was perceived as extremely important. The remaining five items all received very important ratings. Overall, the social integration construct was perceived as very important (M=4.21, SD=.576). When comparing those choosing to stay with those choosing to leave, both groups rated the items as very important with very little difference.

Institutional factors.

Ingersoll (2001) found that turnover rates were distinctly lower in schools that provided more administrative support, lower levels of student discipline problems, and higher levels of faculty decision-making influence and autonomy. Each of these items was included in the listing of thirty items of institutional factors in this study. Overall, CTE teachers in the state of Kansas found the institutional factors to be very important on a five point scale (M=3.90, SD=.544) in their intent to stay in the profession. An inner sense of knowing one is doing a good job (M=4.5, SD=.632) was rated extremely important. Participants rated items pertaining to professional organizations and induction/mentoring programs lower in importance. Participants in Ruhland's (2001) study rated five factors extremely important to their willingness to continue teaching: a positive teaching experience, inner sense of knowing one is doing a good job, administrative support for program development, adequate time to complete job responsibilities and perception of job security. Participants in Ruhland's (2001) study and this study felt having an inner sense of knowing they are doing a good job was extremely important in their intention to continue in the profession. There was minimal difference between the comparison of institutional factors ratings of the stayers and leavers. Both groups rated the construct as very important.

Educational level.

The largest number (N=233) of respondents had earned a Master's degree with the next category being a Bachelor's (N=209). In order to determine any differences in the perceptions of participants receiving a traditional certification or a provisional certification, a comparison was made between the two groups and each factor. No significant differences between the two types of certifications surfaced. Strunk and Robinson (2006) found no differences between different

certification routes and intent to leave the profession. Ruhland and Bremer (2004) report no difference in likelihood to continue teaching between alternate routes of certification either.

Intent to stay or leave the profession.

The discriminant analysis addressing the null hypothesis revealed a large Wilk's Lambda (.981) indicating that group means do not appear to be different between the stayers and leavers in this study. Since the probability (p=.316) was greater than alpha (.05), this study fails to reject the null hypothesis. Therefore, the independent variate has no influence on predicting the CTE teacher's intent to stay in or leave the profession of teaching in this study. The standardized discriminant function coefficient values for teacher commitment (.488), social integration (.556) and the first year teaching experience (.710) and the content area of health occupations (.198) in this study had a positive impact on the eigenvalue (.019). However, negative coefficient values for educational preparation (-.204), skills and abilities (-.640), institutional factors (-.144), and the content areas of family and consumer sciences (-.274) and trade and industrial (-.054) influenced the smaller eigenvalue (.019). In comparison to Chapman and Hutcheson's (1982) findings for the high school group that participants who left and those who did not leave teaching differed significantly in their self-rated skills and abilities, the low standardized coefficient for skills and abilities may justify a more detailed analysis. Results from Chapman and Hutcheson's (1982) study also indicate that the quality of the interpersonal relationships between teachers and administrators and the positive value and recognition received from their larger circle of friends is of particular importance in the teacher's self-assessment of their success. In this study, the higher weights of teacher commitment and social integration in the standardized discriminant function coefficients, indicates importance of these variables overall.

Conclusions and Implications of the Study:

1. <u>Teacher preparation programs in CTE can improve in the areas of teaching methods, curriculum development, classroom management, student assessment, student learning styles, addressing student special needs, use of classroom technology, and student organizations</u>. An overall rating of good (M=2.79, SD=.561) on a four point scale as opposed to an excellent rating in the educational preparation construct of Kansas secondary CTE teachers reveals room for improvement in teacher educational preparation programs. Improvement to excellent perceptions may have an impact on the teachers' choice to remain in the teaching profession and improve retention in career and technical education. Darling-Hammond (2003) reported that teachers who lack adequate initial preparation are more likely to leave the profession. Acknowledging that those teaching at the time of data collection perceived their educational preparation as good rather than fair or poor indicates this may contribute to retention of CTE teachers in the education profession.

2. <u>Contributions to items pertaining to teacher commitment, especially improving student performance, improving student engagement and the reputation of the school, will influence teacher commitment in CTE programs.</u> Participants in this study were in agreement overall with the items measuring teacher commitment (M=4.30, SD=.495) on a five point scale. The tendency to perform tasks associated with commitment to the profession confirms the need to encourage such contributions to this category. Respondents strongly agreed with striving to improve student performance, the importance of the school's reputation, and striving to improve student engagement in classroom activities as teacher commitment contributors. The descriptive analysis reveals

that current CTE teachers in Kansas did not rate any of the commitment items as strongly

disagree or disagree indicating the internal level of commitment as fairly high. Louis

(1998) defines commitment as personal and professional investment in a specific

workplace and its goals. Four types of commitment were outlined in Louis' (1998) study:

commitment to the school as a social unit, commitment to the academic goals of the

school, commitment to students as unique whole individuals, and commitment to the body

of knowledge needed to carry out effective teaching. Items strongly agreed upon in the

teacher commitment construct in this study reinforce Louis' (1998) findings. Improving

student performance (M=4.58, SD=.574) feeds into the academic goals of the school as

well as the body of knowledge needed to carry out effective teaching. Improving student

engagement in classroom activities (M=4.37, SD=.677) is a factor in commitment to

students as unique whole individuals as well as commitment to the body of knowledge

needed to carry out effective teaching. The high rating given to the reputation of the

school being important (M=4.55, SD=.670) confirms Louis' (1998) identification of the

commitment to the school as a social unit as a type of commitment.

3. <u>An ability to perform basic teaching tasks such as selecting course content and performing</u>

   <u>basic administrative tasks may have an influence on their first year teaching experience.</u>

   When rating their first year teaching experience, respondents agreed (M=3.77, SD=.660)

   with the overall construct that was measured on a five point scale. Gaining insight into

   current CTE teachers' first year experience can be beneficial in improving the experience

   for future new teachers. These findings confirm Odell and Ferraro's (1992) report that

   teachers most valued the emotional support they received during their first year of

   teaching followed by support in using instructional strategies and obtaining resources for

the classroom. CTE teachers participating in this study agreed that they selected valid

course content for lectures (M=4.06, SD=.725) and efficiently performed administrative

tasks (M=3.99, SD=.896). Again, a lack of strongly disagree and disagree ratings

indicates these teachers tended to have a positive experience in their first year of teaching.

4. <u>Career and technical education teachers in this study perceived an overall confidence in</u>

<u>their skills and abilities.</u> A solid knowledge of content (M=4.55, SD=.590) was rated

highest in this study on a five point scale. CTE teachers often come in with a strong

foundation in the technical area they are teaching. The remaining 20 items in the skills

and abilities construct were rated as agree, indicating the importance of a CTE teacher's

perception of their skills and abilities in remaining in the profession. Ruhland's (2001)

findings showed significant differences between the stayers and leavers in the skills and

abilities of practical experience in teaching area and supervision and leadership. These

two areas that surfaced in Ruhland's (2001) study encompass a great amount of tasks

necessary for success in the profession. Items included in the skills and abilities construct

of this study of managing classroom procedures, communication with school

administrators, questioning and discussion techniques, adequately manage student

behavior, clear oral communication skills, good communication with community

members, and good communication with students' families would all contribute to

supervision and leadership. For the practical experience in a teaching area, engaging

students in the learning process, integrating technology into the curriculum, solid

knowledge of resources available for classroom and lab use, assessing student learning,

knowledge of teaching methodologies, knowledge of student learning styles, instructional

preparation, instructional planning, and using instructional goals all influence such experience.

5. <u>Social integration for CTE teachers is perceived as very important in improving satisfaction in the profession.</u> Kansas secondary CTE teachers gave an overall rating to the construct of social integration of very important (M=4.21, SD=.576) using a five point scale. Gaining student respect (M=4.61, SD=.572) was rated as extremely important. As Muller et al. (2011) found, a teacher's resilience is fostered through positive relationships and interactions with colleagues as well as knowing how one fits into the social and professional environment. Improving social integration within the profession of teaching can contribute to less isolation of CTE teachers as indicated by Camp and Heath-Camp (1991) resulting in retaining quality teachers. Since relationships with administration, colleagues, parents and the school community are very important it is still considered that these are influential to CTE teacher retention.

6. <u>Institutional factors may play a very important role in CTE teacher job satisfaction and retention.</u> The thirty items used to develop the construct of institutional factors were rated from important to extremely important. The overall summated mean of this category was very important (M=3.90, SD=.544) on a five point scale. Ruhland's (2001) study found five factors rated extremely important to continue teaching: positive teaching experience, inner sense of knowing I'm doing a good job, administrative support for program development, adequate time to complete job responsibilities, and perception of job security. Participants rated an inner sense of knowing I'm doing a good job (M=4.50, SD=.632) as extremely important in remaining in the profession. The remaining four items of positive teaching experience, administrative support for program development,

adequate time to complete job responsibilities, and perception of job security that surfaced as extremely important in Ruhland's (2001) study were rated as very important in this study. Ingersoll and Smith (2003) reported that data suggests the roots of the teacher shortage largely reside in the working conditions within schools and districts. Improving the institutional factors of an educational institution can potentially have a positive impact on the retention of CTE teachers.

7. The suggested model of the influences associated with secondary career and technical teacher retention did not exhibit an ability to predict the intent of a CTE teacher's choice to stay or leave the profession of teaching in this study. As compared to one yes or no answered item on the survey, the discriminant analysis showed no difference between the stayers and leavers. The Wilk's Lambda's (.981) high value indicates group means do not appear to be different between those who answered yes (stayers) and those who answered no (leavers) on question 89 on the survey instrument. Since studies such as Chapman and Hutcheson's (1982) have found significant differences between participants who are still teaching and those who have left in the areas of skills and abilities and social integration, the model presents influences that may have an impact on retention.

Recommendations

The following recommendations are based upon the findings and conclusions of this study.

For practice.

1. Educational preparation programs should consider addressing basic teaching criteria including teaching methods, curriculum development, classroom management, student learning styles, student assessments, classroom technology use, student organizations, and addressing students with special needs in future revisions to improve the teacher

education in career and technical education. Having a solid knowledge of content was a highly rated ability in this study; therefore, more focus on teaching methods, techniques, and management requires more attention. A recurring topic showing lack of confidence for this population of CTE teachers was providing adequate instruction to students with special needs. Including more specific awareness and education of students with special needs could influence CTE teacher confidence.

2. In order to retain quality CTE teachers, school districts will benefit from focused efforts to instill an intrinsic commitment to the profession of teaching, especially to improve student performance, improve student engagement in classroom activities and value the reputation of the school within their teachers. District officials will reap the benefits of retaining quality teachers in their CTE programs through professional development opportunities and professional support encouraging personal and professional investment as a teacher.

3. Upon hiring new teachers in CTE programs, districts should implement ways to nurture teachers during their first year, especially in selecting valid course content and performing educational and administrative tasks efficiently. Making sure to connect throughout the entire year with new faculty members, addressing challenges, frustrations, and concerns will build a stronger induction into the profession. Focusing efforts on the best way to accomplish such support for new teachers may be beneficial in retaining quality teachers in CTE programs.

4. School administrators should continually observe and provide positive feedback to the development of teaching skills and abilities of their CTE faculty in order to build confidence in the teachers and improve retention within their district and the profession.

Use of self reflection and peer observation can be beneficial in addressing the development of strong skills and abilities of CTE faculty. The unique nature of CTE programs often results in isolation and feelings of uncertainty in their abilities. Providing opportunities for self reflection, peer observations, and administrative observations in order to provide feedback for what surfaces as strengths and potential areas for improvement will foster confidence in the teacher as well as improve their skills and abilities.

5. Developing a plan to integrate CTE teachers into the social environment of the school is very important in retention. Focusing on gaining student respect, establishing administrative relationships, fitting into the school community, getting to know colleagues, and parental relationships provides a framework for designing such a plan. Integrating teachers into the educational environment is easily neglected during the extremely busy start of a new school year. However, taking the time to orient teachers each year with an emphasis on developing professional relationships with students, administrators, colleagues, parents and the school community will foster social integration into the district, position, and role as a teacher.

6. Educational institutions should evaluate and continually improve the working conditions within the schools and district. Addressing the institutional factors included in the survey instrument of this study will provide direction for determining strengths and weaknesses of current working conditions. Districts placing priority on improving working conditions will improve retention of quality teachers.

7. Items presented in the suggested model of the influences associated with secondary career and technical teacher retention may provide a framework for districts to insure

retention of quality CTE teachers. Although the discriminate score showed little

probability in the independent variate predicting intent to stay in or leave the teaching

profession, previous studies have shown similar factors influencing attrition of teachers.

For future research.

1. Testing the suggested model for CTE teacher retention in other states would produce
continued results that could encourage national contributions to improving retention of
career and technical education teachers. Duplication of this study in the unique and
varied CTE programs of other states will decrease the limitations of the results and
produce data that will benefit not only the state studied, but national approaches as well.

2. In future use, it is recommended that item number 89 on the survey instrument used in
this study be extended from a yes/no answer to a scaled response or complete construct.
Building a construct for a teacher's intent to stay or leave the profession of teaching will
provide a more in-depth measure of intent to stay or leave the profession, which will
provide richer data analysis opportunities with stronger measures of prediction. A
parametric test in multiple regression could then be used to measure the predictability of
the independent variables on the intent to stay in or leave the profession.

3. A comparison of participants' age category and their choice to not continue teaching may
determine potential reasons for choosing 'no" on this item of the survey. Individuals in
higher age categories may be looking at retirement, and therefore, choosing not to
continue teaching due to that reason. Determining if a pattern exists in the age of the
respondents and their choice to stay or leave could provide an interesting framework for
future research.

4. <u>Comparing the responses pertaining to social integration and involvement in a professional organization would glean potential information on the impact such involvement may or may not have on social integration of teachers into the educational environment.</u> Does involvement with professional organizations decrease feelings of isolation among CTE teachers and improve their ability to feel socially connected to the institution?

5. <u>Limiting the population to CTE teachers who have been in the profession less than ten years would provide richer data in regards to the first year teaching experience and potentially the impact of their educational preparation program.</u> As time moves beyond the first year teaching experience, less and less specific details will be remembered by the participants. Also, the more time that passes since participating in an educational preparation program, the less memory of the impact of its results will be available.

6. <u>A qualitative study of CTE teachers who have left the profession of teaching for reasons other than retirement would provide a strong comparison to this study.</u> Due to the difficulty in locating those who have left teaching in a CTE program, a quantitative study would be difficult. However, locating respondents for a qualitative study would provide great insight into reasons why teachers leave CTE programs.

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Appendix A

(Chapman's Suggested Model of the Influences Associated with Teacher Attrition)

Appendix A

A Suggested Model of the Influences Associated with Teacher Attrition

Educational Preparation

-adequacy of teacher prepared program

-student performance in program

-amount of education

(Learning experiences/performance skills)

Quality of First employment experience

(Learning experiences)

Integration into Teaching

-Social integration

-Professional integration

-values

-skill & abilities

-accomplishments

(Performance skills)

Personal Characteristics

(genetic factors)[a]

Initial Commitment to Teaching

(Learning Experiences)

External Influences

-employment climate

-alternative employment opportunities

(Environmental conditions)

Career Satisfaction

(Cognitive and emotional response)

Remain in or Leave Teaching

(Career decision)

Note Source Chapman, D. W. (1984) Teacher Retention: The test of a model, *American Educational research Journal, 21*(3), 645-658

[a]Italicized words in parenthesis indicate the relationship of components of the model to the more general tenets of social learning theory.

75

Appendix B

(Ruhland's Permission Letter)

Rockingham
Community College

November 5, 2008

Ms. Julie Dainty
493 S. 260ᵗʰ Street
Pittsburg, KS 66762

Dear Ms. Dainty

I received your letter requesting permission to review and possibly use the survey I developed titled *Factors Influencing the Turnover and Retention of Minnesota's Secondary Career and Technical Education Teachers* based upon research your are planning to conduct. I have attached a copy of the survey. You have my permission to use the survey and/or modify the survey for your dissertation. I am requesting that you appropriately cite this survey based upon the research I conducted in your research and any publications as a result of the research you complete.

If you have questions, please contact me.

Sincerely,

Sheila Ruhland Ph.D
Vice President for Instruction
336-342 4261
ruhlands@rockinghamcc.edu

Appendix C

(Panel of Experts Letter)

February 26, 2008

Dear Educator,

A large percentage of teachers leave the profession within the first five years of entry. We are conducting research to determine specific information in Career and Technical Education teacher retention. It is our hopes to identify factors that can lead to retention improvements in the CTE areas.

We are seeking input from a panel of experts to validate the survey instrument designed for this study. You have been selected as one of these panel members. Please evaluate the survey based on the following criteria.

1. Read each statement and make sure you can understand its meaning.
2. Make suggested changes to improve how questions and statements are written.
3. Make suggestions to add or delete items to this survey.
4. Make suggestions to improve format and readability of this survey.

Please e-mail all input to jdainty@pittstate.edu. Thank you for your time and assistance. It is greatly appreciated.

Sincerely,

Dr. Greg Belcher   Julie Dainty

Technical Teacher Education   Family and Consumer Sciences

Pittsburg State University   Pittsburg State University

Appendix D

(Participant Letter for Family and Consumer Sciences)

Dear   ,

A large percentage of teachers leave the profession within the first five years of entry. To curb this loss, it would be beneficial to know why these teachers leave. This research is being conducted to determine specific factors that influence retention of Career and Technical Education teachers in the state of Kansas. With the help of the information you provide, improvements can then be made to enhance retention of CTE teachers.

As a Career and Technical Education teacher, your input is vital to this research. Also, this input is critical in developing strategies to enhance teacher retention. The survey will only take a few minutes of your time. All responses are anonymous.

Thank you for your time. Your responses are greatly appreciated.

Sincerely,

Dr. Greg Belcher   Julie Dainty

Technical Teacher Education   Family and Consumer Sciences

Pittsburg State University   Pittsburg State University

Appendix E

(Participant Letter for Trade and Industrial)

Dear   ,

A large percentage of teachers leave the profession within the first five years of entry.   To better understand this problem of teacher retention, we are conducting research to identify specific determinants for teacher retention for Career and Technical Education teachers in the state of Kansas. It is our hopes to identify factors that can lead to improvements in the retention area.

As a Career and Technical Education teacher, your input is vital to this research. The survey will take approximately 7 minutes of your time to respond to. Enclose is a self-addressed envelope to return the completed survey in. Additionally, all responses are confidential and this research will only be reported as group data.

Thanks you for your time. Your response is greatly appreciated and adds a great deal to better understanding teacher retention.

Sincerely,

Dr. Greg Belcher   Donald Townsend

Technical Teacher Education   Graduate Assistant

Pittsburg State University   Pittsburg State University

Appendix F

(Follow Up Letter for Trade and Industrial)

Dear   ,

Last week you received a survey and letter to gather information on teacher retention. Since this research is important we are continuing the data collection process to get as close as possible to a 100% return rate. Your response will help to understand this problem of teacher retention and to identify specific determinants for teacher retention for Career and Technical Education teachers in the state of Kansas. It is our hopes to identify factors that can lead to improvements in the retention area.

If you have already returned the survey, please disregard this letter, if not please complete the enclosed survey. The survey will take approximately 7 minutes of your time to respond to. Enclose is a self-addressed envelope to return the completed survey in. Additionally, all responses are confidential and this research will only be reported as group data.

Thank you for your time. Your response is greatly appreciated and is important to better understand teacher retention.

Sincerely,

Dr. Greg Belcher   Donald Townsend   Sho-Hsien Su

Technical Teacher Education   Graduate Assistant   Graduate Assistant

Pittsburg State University   Pittsburg State University   Pittsburg State University

Appendix G

(Participant Letter for Health Occupations)

Dear   ,

A large percentage of teachers leave the profession within the first five years of entry. To curb this loss, it would be beneficial to know why these teachers leave. This research is being conducted to determine specific factors that influence retention of teachers who teach in the content area of Health Occupations for Career and Technical Education in the state of Kansas. With the help of the information you provide, improvements can then be made to enhance retention of CTE teachers.

As a Health Occupations teacher, your input is vital in developing strategies to enhance teacher retention. Please complete the enclosed survey and return it in the self-address stamp envelope that is provided. The survey will only take a few minutes of your time. All responses are anonymous.

Thank you for your time. Your response is greatly appreciated.

Sincerely,

Dr. Greg Belcher   Michael Turner

Technical Teacher Education   Technical Teacher Education

Pittsburg State University   Pittsburg State University

Appendix H

(Follow Up Letter for Health Occupations)

March 10th 2009

Dear   ,

This is a reminder of how important it is that you fill out and return the survey that you have been sent we have sent a new copy of the survey in case you lost the first or never received it. If you could please fill this out and send it back by 4-28-2009 it would be greatly appreciated your input is needed and we thank you for the time it will take to fill this out.

A large percentage of teachers leave the profession within the first five years of entry. To curb this loss, it would be beneficial to know why these teachers leave. This research is being conducted to determine specific factors that influence retention of teachers who teach in the content area of Health Occupations for Career and Technical Education in the state of Kansas. With the help of the information you provide, improvements can then be made to enhance retention of CTE teachers.

As a Health Occupations teacher, your input is vital in developing strategies to enhance teacher retention. Please complete the enclosed survey and return it in the self-address stamped envelope that is provided. The survey will only take a few minutes of your time. All responses are anonymous.

Thank you for your time. Your response is greatly appreciated.

Sincerely,

Dr. Greg Belcher   Michael Turner

Technical Teacher Education   Technical Teacher Education

Pittsburg State University   Pittsburg State University

Appendix I

(Participant Letter for Agriculture)

Dear   ,

A large percentage of teachers leave the profession within the first five years of entry. To curb this loss, it would be beneficial to know why teachers remain in the profession. This research is being conducted to determine specific factors that influence retention of career and technical education teachers in the state of Kansas. With the help of the information you provide, improvements can then be made to enhance retention of CTE teachers.

As an agriculture teacher, your input is vital to this research and in developing strategies to enhance CTE teacher retention. The survey will take less than 10 minutes of your time and responses are confidential. This research will only be reported as group data.

Please click the following link to participate in the survey.

(survey link)

Thank you for your time. Your response is greatly appreciated.

Sincerely,

Julie Dainty

The following link will remove you from this survey mailing as an opt-out choice.

(opt-out link)

Appendix J

(Survey Instrument)

Teacher Retention in Career and Technical Education

For each of the following categories, complete the statements as it relates to your teaching position. <u>Be careful to address each item</u>.

<u>Educational Preparation</u>

    1.   Highest educational level attained:

       _____ High School diploma with provisional teaching certification

       _____ Associates with provisional teaching certification

       _____ Bachelor's

       _____ Bachelor's with provisional teaching certification

       _____ Master's

       _____ Master's with provisional teaching certification

       _____ Doctorate

       _____ Doctorate with provisional teaching certification

       _____ Other: Please List_____

Rate the following statements using the scale:

1=Poor, 2=Fair, 3=Good, 4=Excellent

2. My educational preparation in curriculum development:	1 2 3 4
3. My educational preparation in teaching methods:	1 2 3 4
4. My educational preparation in student assessments:	1 2 3 4
5. My educational preparation in classroom management:	1 2 3 4
6. My educational preparation in student learning styles:	1 2 3 4
7. My educational preparation in addressing student special needs:	1 2 3 4
8. My educational preparation in classroom technology use:	1 2 3 4
9. My educational preparation in student organizations:	1 2 3 4
10. My academic performance in the preparation program.	1 2 3 4

11. I believe my education has been well utilized in my current teaching position:

_____ Yes

_____ No

12. When you were in high school, did you enroll in courses related to the program area you are licensed to teach in?

_____ Yes

_____ No

13. When you were a student (secondary or post-secondary), were you involved in a career and technical student organization?

_____ Yes

_____ No

If yes, list the career and technical student organization(s):

_____

Teacher Commitment

Rate each of the following items pertaining to teacher commitment using the following scale:

1=Strongly disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly agree

14. The reputation of this school is important to me.	1 2 3 4 5
15. I tend to volunteer for extra tasks that will benefit the school.	1 2 3 4 5
16. I strive to improve student engagement in classroom activities.	1 2 3 4 5
17. I strive to improve student performance.	1 2 3 4 5
18. I tend to be sensitive to adolescent issues concerning students.	1 2 3 4 5
19. I spend time on extracurricular activities to help support students.	1 2 3 4 5
20. I spend time developing relationships with families to better understand individual students.	1 2 3 4 5
21. I tend to incorporate new ideas in the classroom for more effective teaching.	1 2 3 4 5
22. I tend to access current resources to update classroom content.	1 2 3 4 5

Social Integration

Rate each of the following items as to its importance towards your social integration into teaching.

1=Not important, 2=Somewhat important, 3=Important, 4=Very important, 5=Extremely important

23. Fitting into the school community.	1 2 3 4 5
24. Getting to know my colleagues.	1 2 3 4 5
25. Gaining student respect.	1 2 3 4 5
26. Administrative relationships.	1 2 3 4 5
27. Parental relationships.	1 2 3 4 5

First Year Teaching Experience

Rate each of the following items specifically pertaining to your first year of teaching using the following scale.

1=Strongly disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree

28. I managed student behaviors effectively.	1 2 3 4 5
29. I used classroom time wisely.	1 2 3 4 5
30. I selected valid course content for lectures.	1 2 3 4 5
31. I efficiently performed administrative tasks (grades, scheduling, purchase orders, etc.)	1 2 3 4 5
32. Extra duty assignments were manageable.	1 2 3 4 5
33. I felt confident in curriculum development.	1 2 3 4 5

Skills and Abilities:

Rate your skills and abilities in your <u>current</u> teaching position using the following scale.

1=Strongly disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly agree

34. I feel my oral communication skills are clear.	1 2 3 4 5
35. I feel my written communication skills are clear.	1 2 3 4 5
36. I have good communication with students' families.	1 2 3 4 5
37. I have good communication with school administrators.	1 2 3 4 5
38. I have good communication with community members.	1 2 3 4 5
39. I successfully integrate technology into the curriculum.	1 2 3 4 5
40. I have a solid knowledge of content.	1 2 3 4 5
41. I have a solid knowledge of teaching methodologies.	1 2 3 4 5
42. I have a solid knowledge of student learning styles.	1 2 3 4 5
43. I have a solid knowledge of resources available pertaining to students with special needs.	1 2 3 4 5
44. I have a solid knowledge of resources available for classroom and lab use.	1 2 3 4 5
45. I feel I have adequate organization of physical space.	1 2 3 4 5
46. I feel I adequately manage classroom procedures.	1 2 3 4 5
47. I feel I adequately manage student behavior.	1 2 3 4 5
48. I feel I adequately assess student learning.	1 2 3 4 5
49. I feel I adequately engage students in the learning process.	1 2 3 4 5
50. I incorporate questioning and discussion techniques.	1 2 3 4 5
51. I tend to use reflection on teaching for improvement.	1 2 3 4 5
52. I feel my instructional planning is adequate.	1 2 3 4 5
53. I feel my instructional preparation is adequate.	1 2 3 4 5
54. I tend to use instructional goals for the lessons I teach.	1 2 3 4 5

Institutional Factors:

Rate each item as to its importance in determining your willingness to continue teaching using the following scale.

1=Not important, 2=Somewhat important, 3=Important, 4=Very Important, 5=Extremely Important

55. Positive teaching experiences	1 2 3 4 5
56. Professional development opportunities	1 2 3 4 5
57. Participation in professional associations	1 2 3 4 5
58. Inner sense of knowing I'm doing a good job	1 2 3 4 5
59. Availability of induction/mentoring program	1 2 3 4 5
60. Type of induction/mentoring program	1 2 3 4 5
61. Administrative support for program development	1 2 3 4 5
62. Recognition by supervisors/administrators	1 2 3 4 5
63. Recognition by peers	1 2 3 4 5
64. Recognition by students	1 2 3 4 5
65. Approval of family and/or close friends	1 2 3 4 5
66. Adequate time to complete job responsibilities	1 2 3 4 5
67. Pleasant working conditions	1 2 3 4 5
68. Quality of resources available	1 2 3 4 5
69. Quantity of resources available	1 2 3 4 5
70. Chance to contribute to important decisions	1 2 3 4 5
71. Leadership opportunities	1 2 3 4 5
72. Perception of job security	1 2 3 4 5
73. Potential for salary increases	1 2 3 4 5
74. Contact with educational preparation program	1 2 3 4 5
75. Location of classroom/lab in school.	1 2 3 4 5
76. Adequacy of classroom/lab facilities	1 2 3 4 5
77. Community support for program development	1 2 3 4 5
78. Responsibilities related to student organizations	1 2 3 4 5
79. Safety issues of facilities	1 2 3 4 5

80. Safety issues of equipment	1 2 3 4 5
81. Adequacy of laboratory facilities	1 2 3 4 5
82. Quality of required equipment	1 2 3 4 5
83. Quantity of required equipment	1 2 3 4 5
84. Career opportunities in industry	1 2 3 4 5

Demographics

85. Age:

_____ Under 30   _____ 51-60

_____ 31-40   _____ 61-70

_____ 41-50   _____ Over 70

86. Gender:

_____ Male

_____ Female

87. Total Number of years of non-teaching experience (i.e. business, industry):

_____# of years

88. Total number of years teaching experience:

_____# of years

89. In your future career plans, do you plan to continue teaching?

_____Yes

_____No

90. Specifically to your program area, list three dilemmas you struggle with on a regular basis.

a)_____

b)_____

c)_____

Appendix K

(IRB Approval)

Office of Research Compliance
Institutional Review Board

October 13, 2011

MEMORANDUM

TO: Julie Dainty
                     Jack DeVore

FROM: Ro Windwalker
                     IRB Coordinator

RE: New Protocol Approval

IRB Protocol #: 11-09-145

Protocol Title: *Predicting Influential Factors of Secondary Career and Technical*
                     Education Teachers' Intent to Stay in the Profession

Review Type: ☒ EXEMPT   ☐ EXPEDITED   ☐ FULL IRB

Approved Project Period: Start Date: 10/13/2011 Expiration Date: 10/12/2012

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (http://vpred.uark.edu/210.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval.   Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 188 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes.   All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

210 Administration Building • 1 University of Arkansas • Fayetteville, AR 72701
Voice (479) 575-2208 • Fax (479) 575-3846 • Email irb@uark.edu

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100