

AN ANALYSIS OF PERCEPTIONS OF DROPOUT FACTORS AND INTERVENTIONS
BY MIDDLE SCHOOL AND HIGH SCHOOL TEACHERS IN A
SOUTHEASTERN SCHOOL DISTRICT

by

Christopher Bobby Kennedy

Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

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APPROVED BY:

Russell L. Claxton, Ed.D., Committee Chair

Eric Lovik, Ph.D., Committee Member

Ronald P. Speier, Ed.D., Committee Member

ABSTRACT

Although graduation rates are increasing in the United States, high school dropouts remain an issue of significant concern. Much of the focus of research in this area has been on describing the characteristics of dropouts rather than on developing effective interventions. Moreover, emerging research shows that potential dropouts can be identified with confidence as early as the sixth grade. High school is the time in which dropouts are typically identified and interventions begun, but the seeds of dropping out are often planted well before ninth grade. This survey research study with quantitative analysis used an instrument titled Teacher Perceptions of Dropout Factors and Interventions to examine the perceptions of dropout factors and dropout prevention methods of 165 core subject-area middle school and high school teachers in a school district in the southeastern United States. Results showed there were no statistically significant differences in the perceptions of middle school and high school teachers as to the importance of 18 specific risk factors. The study did find statistically significant differences in the perceptions of dropout prevention efforts and in the importance of the role of teachers in dropout prevention. The study further showed that in this particular district, middle school teachers had a higher perception of dropout prevention efforts and of the importance of teachers in dropout prevention than high school teachers did. Implications for practice to reach at-risk students are discussed as it relates to both middle and high schools, and areas for further research in this area are identified.

Keywords: dropouts, at-risk, middle school, high school, transition, teaching

Dedication

This work is dedicated to my loving family. To my wife, Katie, who cleared calendars and kitchen tables to allow me to write and to research, I am eternally grateful, and I know you are happy to see this journey finally be completed. To my children, Emma and Silas, your patience and support mean more than you know. My beautiful family has sacrificed much through this process, and I thank them so very much.

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Finally, this work is dedicated to the students who I have faithfully served for over 20 years now. I consider public education to be a mission field, and my desire to reach the pinnacle of the profession is rooted in my desire to be a better servant to God's purpose and to you. Again, I only hope I have lived up to the expectations you have had of me as a teacher, coach, and administrator.

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CHAPTER ONE: INTRODUCTION

The number of students failing to complete high school in the United States is a significant social and economic problem. It is estimated that nearly 1.3 million students who entered high school in 2010 will fail to earn a diploma at all (Rumberger & Rotermund, 2012). An emerging trend in research in dropout prevention is the idea that dropping out is not a singular event but rather a process that begins long before the student actually stops coming to school (Bruce, Bridgeland, Fox, & Balfanz, 2011; Doll, Eslami, & Walters, 2013). As a result, much effort is being placed into developing early warning systems for identifying potential dropouts and beginning interventions as soon as warning signs begin to manifest (Burrus & Roberts, 2012; Kennelly & Monrad, 2007). Even though compulsory attendance laws often keep at-risk students in school until high school, warning signs of dropping out are clearly evident as early as sixth grade and sometimes even earlier (Neild, Balfanz, & Herzog, 2007).

Background

After hovering near 70% for nearly two decades, in the 2011-2012 school year the national four-year high school graduation rate finally reached 80% (Stetser & Stilwell, 2014). The four-year graduation rate for minorities, including African Americans and Hispanics, has historically been approximately 50%, even though now this number is finally creeping closer to 67% (Cohen & Smerdon, 2009, Stetser & Stilwell, 2014). In spite of these increases, one in five high school students and one in three minority students will not graduate within four years. This creates a significant problem in the American educational system and for society at large, and this problem has received increasing study and attention. In an era of increased demands of education, skills, and training, high school dropouts face a bleak economic future (America's Promise Alliance, 2014; Center for Promise, 2014; Neild, Stoner-Eby, & Furstenburg, 2008).

They may find themselves without the basics required to be competitive in the modern global society. In addition, high school dropouts have higher rates of unemployment and incarceration and are more likely to be of poor health and on government assistance (McIntosh, Flannery, Sugai, Braun, & Cochrane, 2008). Also of great concern is the fact that minorities and children of poverty are far more likely to drop out, and the graduation rate of minorities is 15-20 percentage points lower than that of white students (Pharris-Ciurej, Hirschman, & Willhoft, 2012; Balfanz, Bridgeland, Moore & Fox, 2010).

Much of the research relating to dropouts and dropout prevention has focused on identifying factors that place students at risk for not completing high school. Social learning theory as described by Bandura (1977) plays a key role in how students respond to risk factors as it relates to completing school. Bandura notes that a person's experiences, behavior, and environment influence the choices he or she makes, and the ability to make sound decisions to achieve his or her goals is crucial, especially at this stage of development (Grusec, 1992). Additionally, while there are sometimes significant singular events that cause a student to drop out (like an economic factor such as a parent losing a job and a student has to go to work or a traumatic event that causes a student to lose interest in school), in general dropping out of school is a process that follows a course over a number of years.

Early research tended to focus on what caused students to drop out and what could be done once that decision was made. Self-determination theory comes into play as adolescents find their intrinsic and extrinsic motivations through autonomy, competence, and relatedness (Deci & Ryan, 2011). Students at risk for dropping out often have significant shortcomings in those three areas. Teachers at the middle school level often deal with the intense changes associated with adolescent maturation but may not have made the connection that deficiencies in this area place

students at risk for dropping out. Likewise, high school teachers may feel limited in addressing these deficiencies by the structural limitations of the school environment; Beland (2014) notes that commonly used motivators and rewards in the school environment do not address those areas effectively. More recent studies have changed the discussion to the process itself and interventions that can and should take place earlier. As a result, the time frame of when dropout prevention should begin has shifted from the actual point at which students drop out to the middle to high school transition and even earlier during the middle school years.

The transition to high school is one of the most critical stages during a student's academic career (Pharris-Ciurej, et al., 2012). Students who get off-track by failing courses early in high school are far less likely to graduate, much less on time with their classmates. The ninth grade year has become a key time in the area of dropout prevention because of the difficulty in transitioning from a middle school to a high school environment and the change in social expectations as students develop into maturity. Schools are placing added focus to help ensure successful completion of the ninth grade because students who are retained have lower achievement levels and/or more disciplinary problems than students who regularly earn promotion (Stearns, Moller, Blau, & Potochnick, 2007).

Research on dropout patterns shows three key factors that predict potential dropouts (Johnson & Semmelroth, 2010). First is a pattern of poor academic performance as evidenced by low grades, low test scores, failing core courses, or not earning promotion. Second is a lack of engagement, which is characterized by high absenteeism, poor disciplinary records, and bad relationships with peers and teachers (Hoff, Olson, & Peterson, 2015). Third is the transition issue, where students exhibit difficulty in the transition years, either between elementary and middle school, or between middle and high school, or both. In fact, the transition year between

middle and high school has been found to be the most important time in predicting school completion (Johnson & Semmelroth, 2010).

As important as the transition from middle to high school is, the potential for dropping out frequently manifests itself well before high school. A study by Neild, et al. (2007) demonstrated that many students who drop out of high school send signals for several years before reaching the ninth grade. This study researched a cohort of entering sixth graders and identified students who received failing final grades in math or English, attendance below 80% for the year, or a final poor conduct grade in at least one subject. Neild, et al. (2007) found that only 29% of sixth graders with just one of these risk factors would graduate and only 7% of sixth graders with all four risk factors would graduate; more than 50% of those who ultimately dropped out of high school demonstrated one or more of those signals during eighth grade.

Balfanz (2009) conducted similar research and found that sixth graders who failed math or language arts, attended class less than 80% of the time, or received poor conduct grades had a less than 20% chance of graduating on time and less than 25% in five years. Moreover, research has also shown course failure in math or English in middle school was a more reliable predictor of potential dropout than test scores (Andrews, 2011; Balfanz, 2009). Clearly the lack of school completion is no longer a high school problem, as Balfanz's (2009) research showed, it was possible to identify half and sometimes more of potential dropouts in the middle grades. Risk factors often begin manifesting in middle school, and interventions should begin once these risk factors are evident.

Unfortunately, most educators often do not know how to deal with struggling middle schoolers. Teachers frequently wait and hope students improve as they mature or label the issues as temporary due to the adjustment from elementary to middle school (Andrews, 2011).

Likewise, students who struggled academically and were retained in elementary school continue to struggle academically and behaviorally in middle school (Im, Hughes, Kwok, Puckett, & Cerda, 2013). In addition, in some states, sixth grade is a gateway for standardized testing, and students deficient in this area are targeted for retention. Retention, in turn, places these students over the usual age for their grade and more likely to drop out (Balfanz, 2009; Stearns, et al., 2007).

Problem Statement

A current gap in the literature exists in that much of the research about dropping out has focused on describing dropouts rather than on strategies to prevent their exit (Knesting-Lund, Reese, & Boody, 2013). In addition, while significant research in dropout prevention at the high school level exists, there is not nearly as much about what can be done to address the issue of dropping out before students reach ninth grade. Still, new research and strategies are emerging, particularly as they relate to transition between middle and high school. High schools are using strategies such as graduation coaches and freshman academies to address the needs of these students and help keep them on track (Cohen & Smerdon, 2009). McCallumore and Sparapani (2010) note that ninth graders have the lowest grade point average, lowest attendance rates, and highest discipline and course failure rates of any high school grade level. Effective dropout prevention programs should likely focus on middle school and early high school, particularly the ninth grade. However, since research is showing the importance of beginning dropout prevention and intervention even earlier, more research is warranted in the area of early intervention, particularly in middle school (Balfanz, 2009).

Middle school teachers likely do not perceive the importance of their role in dropout prevention and intervention because the focus of middle school is often preparing for high school

and less on actually graduating from high school, but McIntosh, et al. (2008) write that waiting until high school to begin interventions may be too late. Andrews (2011) argues that middle school is a crucial time for young adolescents and their prospects for high school graduation, yet there is little research into the perceptions of middle school educators of the importance of the middle grades in dropout prevention. The literature also has not addressed the awareness of middle school teachers as it relates to at-risk factors and dropout intervention strategies. A number of studies have been conducted (e.g., Bridgeland, et al., 2009; Knesting-Lund, et al., 2013; Knesting-Lund, et al., 2015) that have surveyed high school teachers and administrators to measure their perceptions of at-risk students' reasons for dropping out, and those studies have even addressed internal, personal factors versus external and school-related factors. But so far the research has not connected the perceptions and knowledge of middle school teachers who may be far more effective in identifying and implementing a true early-warning system for dropout intervention. Given that the structure of middle school often allows for more meaningful student-teacher relationships (as opposed to the more impersonal structure of high school) and the fact that compulsory attendance creates a more captive audience where interventions can be applied before students have the choice of dropping out, middle school seems ripe for research into effective identification of and interventions for at-risk students.

Likewise, the existing research has lacked the depth to devise meaningful interventions. According to Kennelly and Monrad (2007), "Currently, there is not an extensive menu of proven strategies and interventions tailored for key dropout prevention initiatives most appropriate for various risk factors at differing stages across the education pipeline" (p. 2). While the process of dropping out has been described as the culmination of a complex series of factors, the literature on dropout interventions has been focused more on describing dropouts and therefore simplistic

in its prescription for action to address this area of significant societal concern (Knesting-Lund, et al., 2013). The problem is that the focus of research has been on identifying dropouts and risk factors, but that research has yielded little in the area of developing effective interventions to prevent dropping out when students are identified as at-risk.

Purpose Statement

The purpose of this survey research study was to examine the perceived knowledge of and differences in perceptions of dropout risk factors and prevention strategies between teachers of core-area subjects (English/language arts, mathematics, science, and social studies) at 12 middle schools and eight high schools in a semi-suburban/semi-rural school district in eastern North Carolina. Research has shown identification and prevention of dropouts is an area of significant focus at the high school level; whereas, middle schools are often more focused on preparing students for high school and not on ensuring high school completion (Montgomery & Hirth, 2011; Neild, et al., 2008). This study sheds light on the differences in what middle school and high school teachers perceived about dropout risk factors and prevention methods. The independent variable is the instructional level of the study participants, high school or middle school, employed in the school district included in the study. The dependent variables are the perceived importance of the teachers with regard to dropout risk factors, the perceived knowledge of dropout interventions, and the perceived importance of teachers in dropout interventions.

Significance of the Study

This study is significant because dropping out of school continues to be an issue of great concern for schools and for society at large (Neild, et al., 2008). Much of the existing literature has focused on identifying the characteristics of dropouts themselves but not in identifying

methods to help address the issue. Only recently has the research begun to pivot toward moving beyond recognizing students at risk for dropping out and actually developing early-warning systems and interventions for these students (Hoff, et al., 2015). Dropping out has largely been considered a high school problem since that is the time in which students are actually able to legally quit school, and much of the research has taken place with both high school students and high school teachers (Knesting-Lund, et al., 2013; Knesting-Lund, O'Rourke, & Gabriele, 2015). Compulsory attendance laws force students to remain in school until they reach a certain age, which in North Carolina is currently 16 (North Carolina Department of Public Instruction, 2014). As a result, much of the focus of identifying potential dropouts and developing dropout intervention has focused on high schools (Cushman, 2006; Johnson & Semmelroth, 2010). Since emerging research shows that risk factors for dropping out manifest before ninth grade and potential dropouts can be identified as early as sixth grade, then the focus of dropout prevention efforts must begin as soon as possible (Neild, 2009; Neild et al., 2008). In fact, Lys (2009) argues that middle school is a much more appropriate time to identify and intervene on behalf of potential dropouts than high school, and Smith and Herzog (2014) have identified seminal moments in elementary school that can get students off the graduation track before they make it to middle school. Given that dropping out is considered the culmination of a process and is rarely a singular event, it is crucial that teachers and school personnel be able to recognize dropout risk factors and refer students for intervention (Bruce, Bridgeland, Fox, & Balfanz, 2011; Doll, Eslami, & Walters, 2013). As such, this study will demonstrate the difference between the perceptions and knowledge of dropout risk factors and interventions for high school teachers, and the perceptions and knowledge of dropout risk factors and interventions for middle school teachers. The significance in this study is rooted in the fact that interventions are much more

effective when started at the first manifestation of risk factors (Neild, Balfanz, & Herzog, 2007). The perception of middle school teachers as it relates to dropout risk factors and interventions as compared to high school teachers is crucial because despite the gains in research and knowledge on this subject, North Carolina's dropout rate increased in 2014-15 for the first time in eight years (Bonner, 2016). There was a 7.6% increase in dropouts from the previous year, and dropout rates increased across all ethnicities except Asian during that time frame (North Carolina Department of Public Instruction, 2016). Therefore, this study will provide valuable insight into how middle school teachers perceive the risk factors associated with dropping out compared to high school teachers, where the focus of dropout prevention often rests. This gives rise to the idea that more accurate perceptions of these factors might possibly lead to more effective identification and more timely and effective intervention in the prevention of dropping out.

Research Questions

The following three questions served as guides for research into this problem:

RQ1: Is there a difference in the perceived importance of dropout risk factors between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

RQ2: Is there a difference in the perceived knowledge of dropout interventions between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

RQ3: Is there a difference in the perceived importance of teachers in dropout interventions between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

Null Hypotheses

The following research hypotheses will be explored in this study:

H₀₁: There will be no significant difference in the perceived importance of dropout risk factors between middle and high school core-area teachers.

H₀₂: There will be no significant difference in the perceived knowledge of dropout interventions between middle and high school core-area teachers.

H₀₃: There will be no significant difference between the perceived importance of teachers in dropout interventions between middle and high school core area teachers.

Definitions

1. *At-risk*: Students who have exhibited one or more of the factors that show statistically higher rates of failure to complete high school (Suh & Suh, 2007).
2. *Compulsory attendance*: School attendance that is required by law. The majority of states allow a student to drop out at age 16 (Bridgeland, Dilulio, & Morison, 2006). In North Carolina, all students between the ages of 7 and 16 are required to attend school by North Carolina General Statute 115C-378 (North Carolina Department of Public Instruction, 2014).
3. *Dropout*: For research purposes, a student who fails to earn high school graduation at all (Pharris-Ciurej, et al., 2012). The State of North Carolina has more specific guidelines of a dropout for reporting purposes to include not graduating and not being accounted for through transfer, illness, or death (North Carolina Department of Public Instruction, 2014).
4. *Overage*: A student who is significantly older than his or her peers at a particular grade level. This is usually the result of one or more previous retentions. A student who is 16

years old or older in the ninth grade is generally considered overage (Stearns, et al., 2007).

5. *Retention*: When a student does not earn promotion to the next grade. Retentions may be caused by academic performance, attendance, or failure to meet standardized testing gateways. Students who have been retained in one or more grades generally have lower educational outcomes than their continuously promoted peers (Im, et al., 2013).
6. *Risk factors*: Predictors that increase the chances a student may not graduate from high school. Suh and Suh (2007) identified 180 contributing factors and condensed those down to 16 statistically significant predictive risk factors.
7. *Student advocate*: In the school district involved in this study, a student advocate is a person at each school who is the primary dropout prevention specialist. All eight high schools have this staff position, but only one middle school has this position. This position is now officially referred to as a “graduation coach” at each high school but remains referred to as a “student advocate” at the middle school.
8. *Transition*: The period of movement from middle school to high school. For most school organizational structures, this occurs between eighth and ninth grades (Neild, 2009).

CHAPTER TWO: LITERATURE REVIEW

What is the root cause of the failure to finish high school, and what can be done about it? While there may sometimes be a significant singular social or economic event that influences a student to leave school before completion, the decision to drop out is the culmination of a long-term process of academic, psychological, and behavioral disengagement from school (America's Promise Alliance, 2014; Christensen and Stout, 2009; Christle, Jolivet, & Nelson, 2007; Im et al., 2013; Neild, et al., 2008). As Bradshaw, O'Brennan, and McNeely (2008) put it, "There is an increasing awareness that school failure and early school leaving are processes, rather than discrete events" (p. 19). Students frequently experience several causes at the same time until they become so overwhelmed that dropping out of school seems like a better decision than staying in (McNeil, Coppola, Radigan, & Vazquez Heiling, 2008). Much of the literature on dropout prevention has focused on identifying potential dropouts and the risk factors they demonstrate rather than the promotion of competencies that increase the likelihood of high school success (America's Promise Alliance, 2015; Balfanz, 2009; Bradshaw, et al., 2008; Knesting-Lund, et al., 2013). The competencies required for school success include a positive sense of self, self-control, decision-making skills, a moral system of belief, and social connectedness (Bradshaw, et al., 2008).

Theoretical Framework

The transition from middle to high school involves a number of physical, emotional, and cognitive changes. One theory in play for these students is social learning theory, which focuses on imitation, cross-cultural influences on personality, identification, and parental attitudes. Bandura (1977) describes the context of social learning theory to include a person's biological and physical characteristics, behavior, and environment. These three factors are interdependent

and each influences and is influenced by the others. Bandura's idea of social learning focuses on self-regulation and self-efficacy, which are crucial factors as at-risk students begin to manifest the tendencies that place them on the path to dropping out (Grusec, 1992). Bandura argues that people are responsible for their circumstances through the choices they make in relation to their influences and experiences (Bandura, 1977). Given this context, much of the research on dropout prevention focuses on risk factors, including socioeconomics, behavioral issues, and the importance of educational achievement in the student's home life. An effective dropout program must address the factors influenced by social learning theory.

Following closely with Bandura's idea of social and cognitive factors leading to self-motivation and self-efficacy is the self-system model of motivational development (SSMMD). Fall and Roberts describe this model as one that "integrates contextual and self-system variables and provides a framework for describing processes that initiate and sustain a decline in student engagement" (2012, p.788). SSMMD takes into account the need for individuals to establish connections and interact positively within their environment. In turn, these needs drive the engagement-related issues, which may or may not contribute to dropping out. Measures of academic and social engagement include whether a student is deeply involved in the school environment, whether he or she knows a lot of students, whether he or she felt cared for, and whether or not he or she felt left out (Neild, et al., 2008). Research shows that rising ninth graders in particular are apprehensive about developing connections and positive interactions as they move to the less restrictive but more impersonal high school level (Balfanz, 2009; Katz, 2013; Mizelle & Irvin, 2005).

In addition, self-determination theory as developed by Deci and Ryan (2011) is crucial in a potential dropout's decision of whether or not to complete school. Self-determination theory

deals with intrinsic and extrinsic motivation and posits that those forms of motivation address three basic human needs: competence, relatedness, and autonomy (Deci & Ryan, 2011). Their research has demonstrated that students at risk for dropping out often face significant deficits in the areas of competence and relatedness, thus narrowing the opportunity for developing autonomy within the educational environment. Adolescents frequently seek an internal control of their surroundings and want to control their own destinies and attribute their success or failure to their own actions (America's Promise Alliance, 2015). Further, Deci & Ryan (2011) identified those primary motivators as ABC: autonomy, belonging, and competence; these findings were in opposition to the commonly-used school motivators of competition and external reward (Beland, 2014).

Another relevant theory is cognitive theory, which addresses the manner in which students learn. Students frequently come to high school with striking academic deficiencies. The primary indicator of risk of leaving school before graduation is lack of academic success, and therefore any effective dropout prevention program must take into account learning challenges and how to overcome them. Effective school completion programs address social learning, self-system models, and cognitive factors as part of a larger-scale dropout prevention strategy.

Historical Summary

The social and economic prospects for high school dropouts in the United States are bleak and place them at a severe disadvantage (Dorn, 1993). Adolescents who do not graduate from high school are more likely to be unemployed, homeless, a teen parent, or involved with the criminal justice system (America's Promise Alliance, 2014). Christle, et al. (2007) offers that 56% of high school dropouts were unemployed compared with only 16% of high school graduates. Moreover, 52% of welfare recipients and 82% of the prison population are high

school dropouts. For minorities, the effects of leaving school early are even starker; in 2000, black male dropouts were more likely to be incarcerated than employed (Neild, et al., 2008). Yet the “dropout crisis” in this country is still a relatively new construct, not really making its first appearance until the 1960s (Christenson & Stout, 2009; Dorn, 1993; Dorn, 2003; Jacob & Lefgren, 2007). The concept of a dropout was meaningless throughout the early part of the 20th century since few people graduated from high school in the first place (Kamenetz, 2015).

The context and meaning of what a high school dropout is and how dropouts have been reported have changed over time. Much of this change has derived from changes in the purpose of high school itself and the subsequent value of high school completion. Elementary schooling was widespread in the United States prior to 1900, but few adolescents attended, much less graduated from, secondary schools (Dorn, 2003). There were relatively few secondary schools and it was difficult and expensive for most students to obtain a secondary education. At the turn of the 20th century, a primary reason to attend high school was to gain admission to college, and most high schools offered a classical Latin curriculum for this purpose (Goldin, 1994). Because of this narrow focus in the early 1900s, fewer than ten percent of adolescents were even enrolled in high school, and only about half of those graduated. (Goldin, 1994; Dorn, 2003; Montgomery & Hirth, 2011). Students frequently left school in their early teens for apprenticeships, family, or other work reasons, and that was acceptable within the American landscape.

The rise in demand for secondary education coincided with changes in industrial patterns and labor necessities in the early 20th century. Industries that had previously been dependent on juvenile labor, required less youths to work with the onset of automation and an influx of adult immigrant workers (Goldin, 1994). This led to a significant change in the reason for seeking secondary education as the new economy created white-collar jobs that required more education

than the elementary level provided but less than college or university (Goldin, 1998). Early in the 20th century, it was relatively easy for a teenager to find employment, so there was little reason to remain in school beyond age 13 or so. Education became more important, and a high school credential became key to accessing these new white-collar jobs (Dorn, 2003). Likewise, factory work in the early to mid-1900s could be productive and comfortable, and did not require a high school diploma, but that type of work gradually required more education and technical training (Montgomery & Hirth, 2011).

Thus, the high school movement began in the period from 1910-1940, in which the modern American high school was born. The transformation of secondary education was so drastic and so fast that the high school of 1930 bears a closer resemblance to a contemporary high school than it did to a high school in 1900 (Goldin 1994; Goldin, 1998). As more students enrolled in high school seeking employment training rather than college admission, the number of high school graduates planning to go directly to college fell from roughly 55% in 1900 to fewer than 25% by 1930. It was not until the 1970s that the percentages planning to enroll directly in college rebounded to their pre-1920 levels (Goldin, 1998).

Increasing numbers of students enrolled in high school who did not plan to go to college led to an examination of and shift in the classic Latin curriculum that high schools had previously used (Goldin, 1994; Goldin, 1998). Vocational and technical courses were added to the curriculum and remain as part of the secondary curriculum today. In addition, the junior high school concept came about in the 1920s as a response to the high dropout rate of 14 to 16-year-olds who had previously not completed schooling (Goldin, 1994). The junior high school was designed to provide academic, vocational, and technical training to students who did not intend on completing the full twelve-year course of study. Likewise, vocational and technical courses

remain part of the middle school curriculum even today; although, the expectation is for students to advance to and complete high school (Goldin, 1994).

Enrollment in high school continued to climb so that by 1960, 90% of adolescents were enrolled in secondary education, compared to around 10% just 50 years earlier (Goldin, 1994). Simply providing access to schools helped drive enrollment increases as many students, especially in rural areas, did not have easy access to a high school. As high schools were built and buses provided transportation to secondary schools, there was a corresponding increase in enrollment (Goldin, 1994). Where it was once common and even expected that students would leave school before completion, the perceived value of an education as access to employment and greater levels of success also drove high school enrollment and completion (Goldin, 1994; Dorn, 1996; Dorn, 2003). Today school is seen as a dominant feature in a child's life, and where students once left school in their early teens, they now attend school until they are legal adults (Dorn, 2003).

High school completion rates spiked initially with the influx of new students and reached levels near 70% by around 1930 and remained relatively flat for the next 70 years or so (Goldin, 1994; Dorn, 2003). Given that three in ten students did not finish high school, graduation simply was not expected of all students prior to the 1960s as it was not an accepted societal norm (Dorn, 1996). The evolution of American society in the post-war baby-boom era included the expectation that adolescents would attend school through high school graduation; even more important than that expectation was the development of the notion that school completion was a route to economic and social success. Nevertheless, dropping out of school was not seen as a serious social problem until the 1960s (Dorn, 2003).

After the initial interest in the late 1950s through the mid-1960s in the societal and economic impacts of dropping out of school, the issue seemed to move to the back burner as American society went through the tumultuous late-1960s and 1970s as many societal expectations changed. The publication of the report *A Nation at Risk* in 1983 again returned the issues associated with lack of school completion to the leading edge of educational discussion in America (Christenson & Stout, 2009; Dorn, 2003). While “dropout” remained (and still remains) the primary term to identify someone without a high school diploma, the term “at-risk” entered the dialogue and was applied to youth who faced additional barriers to school completion (Christenson & Stout, 2009; Dorn, 1993; Kamenetz, 2015). In the wake of *A Nation at Risk* came increased calls for accountability that led to an increase in grade retention to reach proficiency and the beginnings of the high-stakes testing model which exists today and exacerbates the high school dropout problem (Dorn, 2003; McNeil, et al., 2008; Montgomery & Hirth, 2011).

At the root of the dropout crisis are a variety of societal and economic complications associated with at-risk youth who become high school dropouts. Students who drop out of school are more likely to be unemployed, to earn lower wages, to show increased risks of health problems, and to receive government assistance (McIntosh, et al., 2008). Cohen and Smerdon (2009) point out, “According to one recent report, the nearly 1.3 million students who failed to graduate in 2004 will cost the nation more than \$325 billion in lost wages, taxes, and productivity during their lifetimes” (p.178).

There is also specific concern as it relates to the high numbers of minorities and those who live in urban areas who drop out before completing high school. African American, Native American, and Hispanic students all have higher than average dropout rates as do those students born outside the United States (Lys, 2009; McNeil, et al., 2008; Pharris-Ciurej, et al., 2012).

Low-income urban youth also demonstrate significant risk factors in truancy and school disengagement (America's Promise Alliance, 2014; Rodriguez & Conchas, 2009). Other key risk factors for dropping out include socioeconomic status, lack of parental or family support, behavior problems, poor academic performance, and grade retention (Stearns, et al., 2007). Additionally, boys make up a higher percentage of those likely to drop out given that they have a higher percentage of school suspensions and are referred for special education four times as frequently as girls (Lamport & Bulgin, 2010).

As previously noted, after an initial spike high school graduation rates remained relatively flat from the 1930s to the early 2000s. Conversely, as it was reported that high school graduation rates began to stagnate in the 1970s, the United States often reported completion rates of well over 80% (Ziomek-Daigle & Andrews, 2009). Research has found that this number is frequently based in self-reported household surveys and census-type data, and often includes those who have completed alternative high school programs or equivalency programs such as a GED (Pharris-Ciurej, et al., 2012). The number of students who actually receive a high school diploma within four years has hovered around 70% (Henry, Knight, & Thornberry, 2012). At the same time, the four-year graduation rates for minorities, including African American and Hispanics, are approximately 50% (America's Promise Alliance, 2014; Cohen & Smerdon, 2009; McNeil, et al. 2008). In the 2011- 2012 school year, the United States reported a four-year graduation rate of 80%, although minorities were still lower at approximately 67% (Stetser & Stilwell, 2014). While this indicates a significant increase, it still means one in five high school students and one in three minority students will not complete high school within four years. This clearly indicates a crisis within the American educational system.

For years, there was little in the way of data related to why students dropped out before finishing high school and, more important, what could be done about it. As a result, key indicators for dropping out were missed, or supports were given over a large scale and missed those students who most needed them (Bruce, et al., 2011).

Current Issue Discussion

What a potential dropout looks like, what risk factors a dropout demonstrates, how early those factors manifest, and what can be done to ameliorate those factors drive the discussion on dropouts and dropout prevention. Unfortunately, there is no uniform profile of students who fail to graduate nor is there a single factor that leads to the decision to leave school (America's Promise Alliance, 2014). Similarly, there are students who would seem to be prime candidates to drop out who find a way to finish school, while students who seem to lack many of the usual risk factors end up dropping out (Montgomery & Hirth, 2011).

There is general consensus among the research that the decision to drop out is typically a long-term process and not a singular event (America's Promise Alliance, 2014; Bradshaw, Brennan, & McNeely, 2008; Christle, Jolivette, & Nelson, 2007; Christensen and Stout, 2009; Im et al., 2013; Neild, et al., 2008). Adolescents who drop out are more likely to be from single-parent homes, to be of a lower socioeconomic status, to have parents and/or siblings who dropped out, to show academic deficiencies including grade retention, to be frequently absent, and to have behavioral challenges (America's Promise Alliance, 2014; Christenson & Stout, 2009; Christle, Jolivette, & Nelson, 2007; Montgomery & Hirth, 2011; Slack, Johnson, Dodor, & Woods, 2013). Dropouts also are more likely to be male, to be older than their peers, to be minority, to have family fragmentation, and to have to work to support the household (Lys, 2009; Mann, 2013; Neild et al., 2008). The accumulation of these conditions, referred to as risk factors,

help drive the identification of and interventions for prospective dropouts; although, having one risk factor or even several is not always a reliable predictor of not completing school (Christenson & Stout, 2009).

Still, these risk factors are the primary predictors of leaving school before graduation. The America's Promise Alliance (2014) found adolescents in their study frequently mentioned 25 different risk factors as playing a role in a decision to leave or stay in school. Meanwhile, Suh and Suh (2007) analyzed data from the National Longitudinal Survey of Youth and considered 180 variables as possible contributing factors to dropping out of school. They whittled those down to 16 statistically significant predictors. Of those 16, three had the greatest significance: academic risk, behavioral risk, and socioeconomic risk. Their study takes a position that early intervention should begin when students begin to show one or more of those risk factors and not wait until a set time or age to begin intervention.

Research on dropout patterns shows three key factors that predict potential dropouts (Johnson & Semmelroth, 2010). The first is students who have a pattern of poor academic performance as evidenced by low grades, low test scores, failing core courses, or not earning promotion. The second is lack of engagement characterized by high absenteeism, poor disciplinary records, and bad relationships with peers and teachers. The third is the transition issue, where students exhibit difficulty in the transition years either between elementary and middle school or between middle and high school or both. In fact, the transition year between middle and high school has been found to be the most important time in predicting school completion (Johnson & Semmelroth, 2010).

It is important to note that risk factors are cumulative in nature; they do not occur independently, and the negative effect of each factor is multiplicative rather than additive

(McIntosh, et al., 2008). The more risk factors a student accumulates, the more likely a student is to drop out (Henry, et al., 2012). Given the importance of these risk factors, the National High School Center developed an early warning system tool for first-year transition based on information commonly available from school-based data (Johnson & Semmelroth, 2010). This includes attendance, course performance, and staying “on-track” as measured by progress towards promotion. This system offers four “red flags” for at-risk students: missing more than 10% of instructional time the first year, missing more than 10% of the first 20 days, earning a grade point average of less than 2.0, and failing more than one course. Johnson and Semmelroth (2010) show that attendance may be the most practical indicator for students in need of early intervention.

Beyond the academic and behavioral risk factors, however, is the influence of social forces from both inside and outside the school. Strom and Boster (2007) noted that parental expectation of school completion played a vital role in a student’s decision to stay in school, but “school process variables like student-teacher interactions are beginning to receive more attention in the dropout literature” (p. 446). Positive interactions at school can work in concert with positive messages from home or can work to counteract negative feedback about school from parents and peers. Likewise, the structure of the school itself can be a contributing factor to early school leaving as well as to effective dropout prevention. Patterson, Hale, and Stessman (2007) conducted research into how school organization and culture contributed to the dropout issue. They suggested that the bureaucratic nature of schools is a barrier to being culturally responsive and collaborative.

Christenson and Stout (2009) arranged the risk factors uncovered in their study into three main categories as well. The first is social background, which includes minority status;

socioeconomics; gender; transience; being overage relative to peers; and parental factors including incarceration, homelessness, and abuse. The second is educational experience, which encompasses the student's interactions with the school, such as a low grade, low standardized test scores, retention, disciplinary issues, and absenteeism. The third category takes in the school itself, such as the size, structure, and student-teacher relationships.

All risk factors do not have the same influence and impact on a student's decision to drop out. Doll, et al. (2013) found that the factors that influence at-risk students to drop out can be categorized as push, pull, or fall out. According to their research, a student is pushed out when conditions inside the school impact a dropout decision. These conditions include grades, attendance, and discipline. A student is pulled out when external factors such as employment, family, or other financial reasons influences a decision to leave. A student falls out when he or she becomes disconnected, apathetic, or disillusioned inside the school environment. "The key difference between push, pull, and falling out factors has to do with agency" (Doll et al., 2013, p. 2). In push, the school is the primary agent, while in pull it is the student. With falling out, it is really neither side. They distinguish pull and falling out as pull having an attractive or distractive aspect, while falling out does not.

It is important to note that identification of potential dropouts is not an exact science. While the relationship between student characteristics and student dropout status has helped paint a profile of the at-risk student, identification of risk factors does not always accurately identify which students will actually drop out of school. Zvoch (2006) states "that the social context of schools can serve to encourage or discourage school completion by facilitating student exposure to positive or negative peer group influences (p. 98). In addition, the research conducted on an entering cohort of ninth graders indicated students who entered high school

overage for their grade level, who lived in poverty, or who had deficient academic test performance were at greatest risk of dropping out. Zvoch found that schools with smaller learning communities had lower rates of early leaving among those identified risk factors.

An increasing amount of research is being done on the challenges students face in the transition from middle to high school and on generating positive outcomes for ninth grade students. Ninth grade students have the highest rates of truancy, discipline referrals, failures, and retentions, and a school's worst data points are usually found among its freshmen (Habeeb, 2013). Pharris-Ciurej, et al. (2012) studied one West Coast school district that showed there were typically 3,000 students enrolled in the ninth grade, but roughly half that number is enrolled in the senior class. There are usually a larger number of freshmen due to retentions and students transferring into the district, but still there is an attrition in this district of nearly 50% in the four years between ninth and 12th grades. While this ratio may not be as high in every school district, there is still no doubt that 12th grade enrollments are usually significantly less than ninth grade enrollments nationwide.

Research shows that the transition to high school is one of the most critical stages during a student's academic career (Pharris-Ciurej, et al., 2012). Students who get off-track by failing courses early in high school are far less likely to graduate at all, much less on time with their classmates. Retention in the ninth and 10th grades has a particularly negative effect as more students drop out in these grades than any other (McNeil, et al., 2008). In addition, students who are retained have lower achievement levels and/or more disciplinary problems than students who regularly earn promotion (Stearns, et al., 2007).

There are a number of other issues that often seem to manifest during the first year of high school. Research suggests "there is likely a convergence of developmental and contextual

factors during this period that can shed light on the timing and severity of these students' academic challenges" (Cohen & Smerdon, 2009, p. 179). In addition this is an unusual juncture in an adolescent's life. For the first time he or she is faced with decisions with long-term consequences but lack the maturity and foresight to make them intelligently (Habeeb, 2013).

One of the first challenges rising ninth graders face is finding themselves unprepared for the structure and demands of high school. The academic demands of high school are usually greater than that of middle school, and this can lead to significant amounts of academic failure in the freshman year (Pharris-Ciurej, et al., 2012). There are also significant structural changes as well, such as the more chaotic movement around a high school building and the more impersonal nature of the high school experience (Cohen & Smerdon, 2009). The middle school environment is usually more personalized, and the bureaucratic, hierarchical structure of large, comprehensive high schools allows students to fall through the cracks (Montgomery & Hirth, 2011; Neild, et al., 2008).

Neild, et al. (2009) point out that ninth graders face key transitions and challenges that can interfere with academic and social success. These include ninth grade often coinciding with life changes such as reduced parental involvement and supervision and increased peer influence. Also, students are often inadequately prepared for the academic environment of high school as well as the organizational structure of high school. Neild suggests that keeping students progressing toward graduation and earning promotion to the tenth grade are keys for ensuring student success. To achieve this goal, she suggests creating supports for struggling students to catch up academically and to examine the structures and organizations of high school to help ensure student success.

Also of concern for first-year students are the teachers these students will have. Neild, et al. (2008) demonstrate that ninth grade teachers are more likely to be new to the profession, new to the school, and/or uncertified. In addition, secondary teachers are often not well prepared to deal with the lack of literacy and numeracy of deficient freshmen. As a result, they lack either the knowledge or materials to help ninth graders deal with deficits in these areas.

Another key point is the self-esteem issues experienced by early and middle adolescents. This is already a unique time in adolescent development, where students are developing their individuality and experiencing a release from their parents and more dependence on their peer groups (Cohen & Smerdon, 2009). At the same time, academic frustrations take a toll on self-esteem, and as a result, students can turn away from academic efforts to focus on things that allow students to feel better about themselves (Stearns, et al., 2007). This search for self-esteem can often be the gateway to further school disengagement and can open the door to self-injurious behavior, delinquency, and drug use; all of which would then further contribute to the likelihood of dropping out (America's Promise Alliance, 2014; Henry, et al., 2012).

Along those lines as student academic performance declines in the first year of high school, the perceived support of students declines as well. In particular, Latino students perceive the middle-to-high school transition to be more difficult than African American or white students (Lys, 2009; McIntosh, et al., 2008). There is also a marked decline in the relationships between retained students and their peers and teachers (Stearns, et al., 2007). The experience of youth in school is framed by their perceptions of their relationships with teachers (Chhuon & Wallace, 2014). Negative student-teacher relationships manifest in many ways from poor academic performance to increasing the disconnect with the school environment. Perhaps more important

is the lack of positive influence from parents as it relates to the prevention of disengagement and absenteeism.

There is also an important connection between behavioral issues and academic outcomes, particularly in the ninth grade. McIntosh, et al. (2008) found that students with early behavior problems are at greater risk for academic problems. Brown (2007) states that students with disciplinary issues may have had prior experiences of being suspended or excluded from school, and this may have left them academically disengaged and distrustful of the school adults on whom they need to depend for success in the school environment. This becomes a vicious cycle as students who are struggling academically then engage in aversive behavior to remove themselves from the challenging academic environment. Ultimately, many of these students then receive discipline that removes them from the classroom or suspends them from school, adding to the absenteeism issue that is such a prime predictor of dropping out. Students can then fall into a trap of retention due to both school absence and poor academic performance, which again is a significant risk factor for early school leaving (Brown, 2007; Stearns, et al., 2007).

The literature suggests that the potential for dropping out frequently manifests itself well before high school, even as far back as kindergarten. Neild et al. (2008) argues that some students are set on a track of school failure from their initial transition into school, shaped partly by experiences in preschool. These students are labeled as low academic achievers and troublemakers; they often will carry this label with them throughout their schooling years.

The middle grades are very difficult for students already navigating very complex changes in the cognitive, physical, social, and emotional arenas (Bailey, Giles, & Rogers, 2015). This is also a time during which young adolescents begin engaging in risky behaviors such as experimenting with drugs, alcohol, and tobacco. During the middle school years, students

possess increasingly negative attitudes towards school (Raphael & Burke, 2012). These kinds of risk factors mirror those shown by high schoolers at risk for dropping out.

Neild, et al. (2007) demonstrated that many students who drop out of high school send signals for years before reaching the ninth grade. This study researched a cohort of entering sixth graders and identified students who received failing final grades in math or English, had attendance below 80% for the year, or received a final poor conduct grade in at least one subject. More than 50% of those who ultimately dropped out of high school demonstrated one or more of those signals during eighth grade as well. The seeds of high school dropouts are often sown in middle school as middle schoolers often face decreased motivation and are more likely to engage in bad behavior. Some of this is part of the natural development into puberty, but school environment and instructional practices contribute as well (Raphael & Burke, 2012).

Weiss and Bearman (2007) investigated the effects of the transition between middle and high school and noted that “for many students, poor performance in the first year of high school establishes a pattern of failure, leading to lower educational trajectories and poor outcomes throughout school and a substantially higher risk of dropping out of school” (p. 396). But they also found that the transition itself is accompanied by negative changes whether or not there is a physical change in location, i.e. moving from a middle school to a high school building. Yet the researchers found, there can sometimes be a positive effect in that the high school transition offers a fresh start for some students.

In addition, there are a number of increased demands on ninth graders that can cause a negative impact on student success and place them at risk for leaving school early. McCallumore and Sparapani (2010) suggest that ninth graders have the lowest grade point average and attendance rates and highest discipline and course failure rates of any high school grade level.

They also found that many students enter the ninth grade with reading comprehension issues, which adds to the challenge of high school transition. Their research indicates targeted programs such as freshman academies and increased vertical alignment and teaming between middle and high school teachers can help address these issues. Additionally, many large, comprehensive high schools have been reorganizing into smaller learning communities in order to personalize the learning experience for incoming ninth graders and support their unique learning needs (Ellerbrock & Kiefer, 2014).

There are other effects of large high schools that contribute to the challenge of freshman transition. Large schools allow chances for students to roam the halls and hang out with friends, and students skip classes with lowered academic standards because they feel they will not be missing much (Montgomery & Hirth, 2011; Neild et al., 2008). In addition, the simple structure of high schools makes it more difficult to build student-teacher relationships, and the organization of high school can be unwelcoming and marginalizing to students who are already at risk for dropping out (Lys, 2009; Montgomery & Hirth, 2011).

These issues are not unique to the transition between middle and high school. The transition from elementary to middle school also has the capacity to knock students off track for academic success. The transition to middle school offers challenges to students who have been in self-contained elementary environments, and changing classes can be overwhelming (Raphael & Burke, 2012). Bailey, et al. (2015) also point out that rising sixth graders share some of the same concerns as their counterparts transitioning to ninth grade as it relates to peer pressure, academic performance, and bullying. The middle school can appear large and uncaring in comparison to elementary school just as high school looks large and uncaring in comparison to middle school.

Nevertheless, the transition years from fifth to sixth grade and from eighth to ninth grade are the most critical for academic success (Christenson & Stout, 2009).

A key point of contention in the debate over accountability, high-stakes testing, and dropping out is the role of grade retention. The push for accountability has brought this issue to the forefront. Starting in the 1960s, there was growing concern that retention had an adverse impact on social, emotional, and cognitive development and was a key contributor to dropping out (Jacob & Lefgren, 2007). Grade retention came into vogue as a method to ensure proficiency in the 1980s, and today some states, such as Texas, Florida, and North Carolina, mandate grade retention for students who do not pass certain gateways (Smith & Herzog, 2014). However, the research shows no generalizable impact of retention on student outcomes. Some research shows an increased likelihood of dropout with retention, while other research shows some benefit in achievement. Smith and Herzog (2014) found that studies that focused on the achievement of retained students over time found more benefit, while those that focused on retained students over promoted students found less benefit.

Jacob and Lefgren (2007) studied retention in middle school and found that retention in the sixth grade had little impact on dropping out but that retention in eighth grade increased the chances of dropping out by 14%. Smith and Herzog (2014) came to a similar conclusion as Jacob and Lefgren, which is the earlier the retention, whether in elementary or middle school, the less impact on dropping out since earlier retentions give more opportunities to catch up with peers.

Retention in high school, particularly in the ninth grade, has quite a different impact. Students retained in ninth grade are immediately “off track” for graduation, and the chances of dropping out go up significantly (Neild, 2009). The dynamic in high school is different as students have to pass individual courses to earn credits toward graduation. Students then fall

behind their peers, and those already overage from previous retentions face being significantly older than their classmates. It becomes easier to disengage when academic struggles are coupled with social difficulties. Also, as opposed to earlier grade retentions, there is less time to catch up. Clearly retention in high school has a negative impact on high school completion (Jacob & Lefgren, 2007).

Emerging Strategies and Recommendations

The identification of risk factors has usually been the primary focus of research and intervention in dropout prevention. Research has indicated a number of factors as the most powerful predictors of students dropping out although the impact of these factors varies according to individual studies. McIntosh, et al. (2008) cite poor academic performance and problem behavior as especially powerful reasons for dropping out. Likewise, Johnson and Semmelroth (2010) note a lack of engagement and high absenteeism as strong predictors. Stearns, et al. (2007) offer that students who repeat a grade are very likely to drop out. These variations, coupled with the external factors such as socioeconomic status and lack of parental support, make it difficult to create a “one-size-fits-all” plan of prevention and intervention to address the dropout crisis.

While early identification of students at risk for dropping out is vital in prevention and intervention efforts, research is showing that these initiatives and strategies have the best chance for success when implemented at the first sign of manifestation. For many students, that time frame is middle school. Johnson and Semmelroth (2010) found that patterns emerge as early as sixth grade for students who are at elevated risk of dropping out. McIntosh, et al. (2008) argue “that waiting until high school to identify individual students at risk for dropping out may be too late to provide benefits for students already on a path to dropout in middle school” (p. 252).

Research has shown that signals for potential dropouts can be seen as early as elementary school and certainly by middle school. Ziomek-Daigle and Andrews (2009) cite one study that offered four dropout risk factors identifiable in middle school: a final grade of “F” in English/language arts, a final grade of “F” in mathematics, a final behavior grade of “unsatisfactory” in at least one class, and an 80% or lower attendance rate. The study found that only 29% of sixth graders with just one of these risk factors would graduate, and only 7% of sixth graders with all four risk factors would graduate. This study also showed course failure in math or English was a more reliable predictor of a potential dropout than test scores (Andrews, 2011). As Herzog, Liljengren, Mulvihill, and Balfanz (2009) demonstrate, “Every year, thousands of middle level students exhibit one or more of these ‘ABCs’ (attendance, behavior, course failure). Those who have any one of these risk factors have only a 10% to 20% chance of graduating within five years of entering high school” (p.8).

While there is no single factor that leads to a student’s decision to leave school nor is there a uniform profile of dropouts, one recurring concern is the lack of connectedness experienced by students (America’s Promise Alliance, 2014). Beginning in the middle school years, students have increasingly negative attitudes towards school (Raphael & Burke, 2012). Neild et al. (2008) describe two levels of engagement with school: academic and social. Academic engagement deals with following rules, participating in the school environment, and putting forth an effort to gain knowledge, while social engagement includes positive relationships with peers and adults. At each level of transition from elementary to middle and middle to high, the dynamics of friendships and interactions with teachers change as the structure of the school changes. At each level, it becomes especially harder to make meaningful

connections with adults, and connectedness to others is both a risk factor for leaving as well as a reason students say they persist.

Given they are wedged between two major transitions, middle schools often find themselves in a valley between two mountains of intervention. There is much in the way of resources and research that have been directed to increase language and numerical literacy at the elementary level; similar efforts have been made for dropout prevention and career and college readiness at the high school level (Ziomek-Daigle & Andrews, 2009). While students in grades five through eight represent 58% of all students taking standardized tests under No Child Left Behind, the middle grades receive only about 10% of the funding earmarked for at-risk students (Andrews, 2011). In addition, a majority of the schools under sanction by NCLB for not meeting Adequate Yearly Progress targets are middle schools, and poor performance on standardized tests is a predictor for dropping out later in high school. Andrews (2011) cites a report from ACT that calls this time “the forgotten middle.” She suggests that recent research shows middle school is a crucial time for young adolescents and their prospects for high school graduation. Middle school is an important transition time as students are exposed to different social situations, multiple teachers, and increased academic demands (Kieffer, Marinell, and Neugebauer, 2014).

One potential barrier to promoting high school readiness early in middle school is that educators often do not know how to deal with struggling sixth graders. Teachers frequently wait and hope they grow out of it or label the issues as temporary due to the adjustment from elementary to middle school (Andrews, 2011). But the sad reality, as evidenced by the red flags exhibited as early as sixth grade, is that these students are often already on the road to dropping out. In some states, sixth grade is a gateway for standardized testing, and students deficient in this area are targeted for retention. Retention, in turn, places these students overage for their

grade and more likely to drop out (Stearns, et al., 2007). Neild, et al. (2008) also point out that secondary teachers, including those in middle school, do not have the training or resources needed to address deficiencies in numeracy and literacy. If these issues are not addressed in middle school, students fall further behind when they arrive in high school without the requisite skills in this area.

In addition, Bailey and Baines (2012) assert that middle school teachers, especially those in eighth grade, spend large amounts of time preparing students academically for high school, while high school teachers devote a good amount of time helping new ninth graders adjust to the high school environment. This focus on academic preparedness at the middle level versus the focus on adjustment at the high school level is indicative of how middle school teachers perceive their role in their students' academic journeys.

Fortunately, the middle grades are no longer being ignored in state and national efforts to reduce dropout rates and improve high school completion rates (Andrews, 2011). The Success in the Middle Act of 2011 represents one step that the federal government is taking to provide a new focus on middle grades education and improving educational outcomes for middle school students (Andrews, 2011). Another promising initiative is the addition of dedicated personnel in middle schools to identify at-risk students (Ziomek-Daigle & Andrews, 2009). Whether they are called "graduation coaches," "success coaches," or "student advocates," these professionals often have counseling backgrounds and are tasked with using known risk factors to identify those students at greatest risk of dropping out. They also help with the transition from elementary to middle school and from middle school to high school. They can also access community resources to help meet the needs of students.

Likewise, there is growing recognition of the need to provide programs and strategies for students at the middle level. A good place to start is to identify those students with greatest academic need and teach academic success skills to improve grades and to better prepare for high-stakes testing (Mason & McMahon, 2009). In addition, middle school administrators and teachers must ensure a rigorous curriculum that prepares students for academic success at the high school level. Students who are potential dropouts often report being academically unprepared for high school (Pharris-Ciurej, et al., 2012). Middle and high schools should work together to encourage vertical teaming so that content area teachers at the middle school level are familiar with the high school curriculum and what the expectations are. They can then more adequately prepare their students for the rigor of high school. Middle school teachers should also continue to work to make their own curriculum as rigorous as possible and to hold students to high expectations. There is often a disconnect as “significant majorities of both teachers and principals do not believe students at risk for dropping out would respond to high expectations and work harder” (Bridgeland, Dilulio, & Balfanz, 2009, p. 21). Yet over 70% of students who did end up dropping out said they would have responded positively to higher expectations (Cohen & Smerdon, 2009).

Programs that focus on academic needs alone can miss the root causes of being at risk and dropping out. At-risk adolescents face circumstances that leave them unprepared to cope with social and emotional situations (Slack, et al., 2013). Meeting these social and emotional needs, and ensuring middle school teachers are capable of recognizing and addressing these needs, are crucial components for ensuring success at the middle level and into the transition to high school (Raphael & Burke, 2012). School professionals should also tailor programs to meet the needs of specific populations. For example, Mann (2013) offers that few intervention

programs are gender specific and that at-risk girls are most likely to benefit from activities that promote self-confidence, self-esteem, and identity. Boys, on the other hand, often benefit from adult mentoring, especially African American boys (Slack, et al., 2013). Lys (2009) found Latino students are best served by strengthening the connection between home and school.

Administrators and teachers can understand the expectations of their students' home lives, and parents can better communicate with the school, including making sure documents, rules, and regulations are available in Spanish.

Transition times between the fifth and sixth grades and again between the eighth and ninth grades have been found to be most crucial for the ultimate completion of high school. The concerns of students making the transition from elementary to middle school and from middle to high school are remarkably similar. Students going through those transitions are worried about the increase in academic rigor, the change in relationships between peer groups and between students and teachers, and the loss of personalization, as students move from the self-contained environment in elementary school to middle school and the team-centered environment in middle school to high school (Bailey, et al., 2015; Bushaw, 2007; Montgomery & Hirth, 2011; Raphael & Burke, 2012). Effective dropout prevention systems must pay close attention to the critical predictors of school failure, particularly at these crucial transition times (Christenson & Stout, 2009). A good place for schools to start is to focus on the transition between eighth and ninth grade and to involve staff from both the middle and high school levels in the creation of transition programs (Ellerbrock & Kiefer, 2014).

In line with this idea, middle and high schools should work together to continue to facilitate transition activities that ease the shock of moving from eighth to ninth grade. Campus visits, curriculum fairs, and new parent/student nights are ways middle and high schools can

collaborate to facilitate the transition before students set foot in the high school on the first day of ninth grade. Cushman's (2006) interviews with ninth grade students showed the need for early transition activities to increase the opportunities for success at the beginning of high school, and Roybal, Thornton, and Usinger (2014) point out that research shows effective freshman transition programs include planning sessions between middle and high school teachers, parental involvement, block schedules for core classes, small learning communities, and celebration of successes.

Clearly the ninth grade year is a crucial one for high school success. In response to the growing body of evidence in this area, schools have adopted a number of strategies to combat what Pharris-Ciurej, et al. (2012) describe as "the ninth grade shock." Much of the literature focuses on the importance of the ninth grade in creating an effective dropout prevention strategy. Cushman (2006) interviewed new ninth grade students for a first-hand perspective on student needs for support and success at the high school level. Among the suggestions from the students themselves were the need for peer mentoring and role modeling of students who were being successful in high school already. These students also stressed the need for smaller learning communities and advisory groupings to help personalize the high school experience. The need for a process for students to receive help both in and out of class was crucial to assist students who might fall behind and get discouraged with school.

Many schools are employing early warning tools to identify students at risk for dropping out (Mac Iver & Mac Iver, 2009). The simplicity of this system is that it relies on readily available data that are excellent predictors of high school completion (Johnson & Semmelroth, 2010). Feeder middle schools should share their at-risk data with high schools whenever possible so that high schools have a head start on identification and can target interventions from the first

day. Schools are also turning to community resources to help with the social aspect that students sometimes lose in high school and to empower them to be successful both inside and outside the school environment (Rodriguez & Conchas, 2009).

Knesting (2008) investigated why students who were at risk for dropping out stayed in school. She points out that among all the voices contributing to the issue of dropout prevention, rarely were the students themselves included in the discussion. Merely allowing at-risk students to be heard and have positive interactions with teachers and administrators was vital to a decision to remain in school. A caring school environment was also crucial as caring teachers were as much a reason for at-risk students to stay as uncaring and disrespectful teachers were a reason for leaving. Montgomery and Hirth (2011) stress the importance of simply having someone take an interest in students as a number of dropouts reported they simply stopped coming to school and no one cared.

A popular strategy in addressing freshman transition is the creation of freshman academies, wherein students are grouped with a group of teachers that teach only ninth graders and usually isolates freshmen within a specific part of the building (Habeeb, 2013). Freshman academies often include advisory components and may include a transition course that teaches academic and life skills (Ellerbrock & Kiefer, 2014). Neild (2009) notes that inadequate preparation for high school-level academic requirements and the organization of high schools themselves are the most significant factors for freshmen getting off track early. Concepts such as a freshman academy help provide a bridge between the structure found in middle school and the more fluid organization of the high school.

Likewise, the relationship-building and advisory function of the freshman academy addresses what Knesting (2008) identified as key factors in why students at risk stay in school,

including a caring environment and a commitment to helping students stay in school. Along the same lines, Somers, Owens, & Piliawsky (2009) found that personal interaction is key to keeping at-risk students in school, even if specific metrics such as grade point average did not significantly rise.

But freshman academies themselves are not a panacea for addressing the transitional needs of ninth graders. Habeeb (2013) argues that academies themselves are ineffective for the 10-30% of freshmen who are academically and socially prepared for high school and that isolating them from the rest of the high school experience can actually slow their growth and acclimation. He also argues that the stresses on the school structure, both in physical resources and human needs, are not worth the hassle and that instead schools should focus on developing a teaming model in which teachers work together and address the individual needs of students.

High schools would be well served to study and implement the concept of dedicated staff members to work on dropout prevention (such as graduation coaches and student advocates) rather than relying on regular counselors only. High schools must also examine their structure and organization to find ways to ease the transition. High schools tend to be larger organizations and are more impersonal and competitive than middle schools (Cohen & Smerdon, 2009). They must find a way to decrease that difference, such as through the utilizing small learning communities; designing freshman academies; locating ninth graders in a particular section of the building; and developing student-faculty advisory programs to make high school easier to navigate and less impersonal. The most successful transition programs are those that incorporate students, faculty, and parents. Maintaining parental involvement is especially important as high school is a time when many parents disengage from their student's academic and social environment (Cohen & Smerdon, 2009).

Dorn (2003), Christle, et al. (2007), and others share a concern that programs such as freshman academies, parent nights, and mentoring are just that – programs. They do not address the structural challenges of high school itself that are restrainers for success for entering freshmen. The organization of high school can be unwelcoming and can marginalize those students already at risk for dropping out (Lys, 2009). The literature suggests students entering high school would benefit from a less complex and more intimate and responsive school structure. Legters and Balfanz (2010) argue that whole school transformation and reform must occur in both middle and high schools where students are falling off the graduation track. They suggest abandoning the large, bureaucratic structures that are often associated with failing schools, particularly high schools, and replacing them with smaller and more responsive units.

Other structural changes that high schools should explore to improve early outcomes include block scheduling, targeted literacy instruction, and credit recovery programs. Students who fail courses during the freshman year are more likely to end up “off track” and therefore at greater risk for dropping out. Schools would be well served to focus on improving chances for success with ninth graders and for making concerted efforts with those students who do not pass the first year. Stearns, et al. (2007) argue that schools that are interested in reducing dropout rates should give particular attention to retained students. But regardless of the changes made, schools should organize into structures that promote meaningful relationships (Ellerbrock & Kiefer, 2014).

There are a number of restrainers that make it difficult to implement substantive changes to address the needs of at-risk students and work toward more impactful dropout prevention. Making structural changes to school function at the middle or high school levels is often difficult as schools face capital and human resource challenges that make it impractical to change how

schools do business (Dorn, 2003; Ellerbrock & Kiefer, 2014; Habeeb, 2013). The middle and high school models are well entrenched and require a paradigm shift that some schools are either unwilling or unable to embrace.

In addition, there is a body of research that deals with the perceptions of high school dropouts, and these perceptions are sometimes at odds with the perceptions of teachers and administrators who would likely be implementing dropout prevention programs. Bridgeland, et al. (2009) note that “significant majorities of teachers and principals do not believe that students at risk for dropping out would respond to high expectations and work harder” (p.2). Yet two-thirds of dropouts said they would have worked harder if more were expected of them.

Bridgeland, et al. (2009) describe this as an expectations gap, which is a possible impediment to closing the achievement gap. In addition, their research showed that less than one-quarter of principals and teachers felt boredom was a factor in dropping out, but half of dropouts reported being bored in school and failing to see the relevance of education to their lives. This type of disconnect makes it even more difficult to establish effective initiatives to combat the dropout issue.

Nevertheless, trends have emerged through the data that have allowed for the creation of screeners and other early warning systems to identify students at risk for dropping out as soon as possible and begin interventions. Johnson and Semmelroth (2010) note that despite varying requirements for graduation across school districts, screening should take place in all school districts for students who are at risk for dropping out, students who have learning needs requiring intervention, and students who are at risk for not meeting standardized test benchmarks.

Likewise, Henry, et al. (2012) advocate an early warning index to measure school disengagement, which can lead to dropout, delinquency, and substance abuse. Still, the question

remains: how early should an early warning system come into play? The answer is that effective dropout prevention programs should likely focus on middle school and early high school, particularly the ninth grade.

There is still some disagreement among middle and high school educators about when intervention and dropout prevention programs should start. Research has shown that the potential for dropout can be statistically accurate as early as the sixth grade and that warning factors manifest even earlier (Neild, 2009; Neild, et al, 2008). Lys (2009) suggests that middle school, not high school, is the pivotal point in the dropout experience and that effort and resources should be expended in the middle grades to keep adolescents on track. Ellerbrock and Kiefer (2014) recognize the role that middle school educators serve in the preparation for high school but focus their suggestions on what middle school teachers can do to support high school efforts in the transition process. Habeeb (2013) says this about middle school efforts at dropout prevention: “Many focus on what happens before high school. Although there is nothing wrong with pre-high school efforts, such strategies are comparable to premarital counseling: it’s a great idea but young couples are going to need some additional guidance once they tie the knot” (p.19). Clearly there is not a consensus on how best to meet the unique needs of at-risk students.

Nevertheless, the reviewed literature and various anecdotal school experiences reveal a number of key applications and recommendations for incorporating targeted transition from middle to high school into an effective dropout prevention program. First, schools should move past the bureaucratic and structural challenges that impact student achievement while striving for a caring and collaborative culture that recognizes student diversity and the values that contribute to leaving school early (Ellerbrock & Kiefer, 2014; Patterson, et al., 2007).

Second, schools would benefit from developing programs to educate and involve parents and develop a more personalized educational setting (Lys, 2009; Somers, et al., 2009). A truly effective, inclusive program should help personalize the learning experience and increase parental and family involvement.

Third, Bradshaw, et al. (2008) suggest that schools implement mentoring programs that last at least one year. They also suggest early intervention and the creation of programs that promote effective decision-making, self-control skills, and social connections. Chhuon and Wallace (2014) note that the key to adolescent development is forming positive adult relationships outside of parents.

Fourth, Zvoch (2006) notes the creation of smaller learning communities such as freshman academies can have a positive effect on reducing dropout rates by increasing the attachment to school and counteracting the external pressures to leave school early. The anecdotal success of freshman academies certainly supports that line of thinking. Even if not going as far as an academy model, any move towards a teaming model that more closely mirrors the middle school experience is helpful (Habeeb, 2013, Neild, et al., 2008).

Fifth, data show that if a student makes it to tenth grade, she/he is far more likely to graduate from high school (McCallumore & Sparapani, 2010). Therefore, focusing on promotion, especially for those students retained after the first year of high school, is a vital part of freshman transition (Neild, 2009).

Sixth, transition programs should address the academic deficiencies of at-risk students to increase school success and reduce the potential for dropping out (Neild, 2009). Strategies in this area include the purposeful hand-scheduling of students into English and math classes and addressing the literacy deficiencies of incoming freshmen with flex grouping as well as creating

outreach and vertical teaming opportunities with feeder middle schools to identify and address these academic deficiencies earlier. In addition, transition programs should include processes for teaching studying and goal-setting, and for developing other life skills necessary for success (Ellerbrock & Kiefer, 2014; Montgomery & Hirth, 2011).

Finally, any at-risk intervention strategy must focus on making students feel connected to the school and especially to the adults in the school. Whether this includes changing entire structures or implementing targeted programs, time and again a connection to the school environment or, more important, a lack of a connection is the primary reason students make the ultimate call to leave school before graduation (Chhuon & Wallace, 2014; Ellerbrock & Kiefer, 2014; Montgomery & Hirth, 2011; Neild, et al., 2008). The more a student is connected and engaged, the greater resilience is fostered in the face of adversity (America's Promise Alliance, 2015). It is very easy to devise programs for academics and procedures, but until the social and emotional issues, particularly as related to connectedness, are addressed, initiatives will not have their greatest impact (Bailey, et al., 2015). As previously noted, being connected can be the prime reason a student stays in school or the prime reason a student leaves school (America's Promise Alliance, 2014).

Bushaw (2007) cited the results of a national survey of 1,800 middle schoolers in which 93% of the students said there was no chance they would drop out of school, and 92% said they would go to college. This survey highlights two findings: First, American middle school students by and large expect to graduate from high school and attend college. What is happening that somewhere between one in four and one in five students do not graduate from high school, and what can be done about it? And second, by middle school, seven percent of students do not see themselves as high school graduates. This is concerning and shows the need for intervention at

the middle level. This study shows that interventions should begin as soon as risk factors are present and supports should continue through the ninth grade year and beyond to ensure high school success for as many students as possible.

CHAPTER THREE: METHODS

The purpose of this study is to investigate the perceptions of and knowledge of dropout risk factors and prevention strategies by both middle school and high school teachers. High school has often been the focus of dropout prevention efforts because that is when students usually reach an age at which compulsory attendance laws no longer apply (McCallumore & Sparapani, 2010; Neild, 2009; Suh & Suh, 2007). Emergent research has demonstrated that risk factors for dropping out begin to show as early as sixth grade, if not before, and that interventions to prevent dropping out should begin as soon as these factors begin to manifest, including in middle school (Lys, 2009; Neild, 2009; Neild, et al., 2008). In addition, the literature shows one of the most critical times to help ensure school completion is the transition from middle school to high school (Cohen & Smerdon, 2009; Knesting, 2008). Therefore, this study compared the perceptions of core-area (language arts, mathematics, science, and social studies) teachers of middle schoolers with the same perceptions of core-area teachers of high schoolers, where dropout prevention is expected to be a focus.

Design

The research design for this study was a quantitative nonexperimental survey study. According to Creswell (2012), quantitative survey research is one of the most common methods of research in the social sciences as the purpose of survey research is to generalize to the population from a designated sample. Creswell (2012) suggests questionnaires used in quantitative survey research can be used to develop, evaluate, and identify findings of other research studies. This study included a one-shot survey approach, which Lodico, Spaulding, and Voegtler (2010) describe as being conducted with a single administration and determining the current perceptions of a group at a point in time. The groups measured, middle school core-area

teachers and high school core-area teachers, were the independent variable in this study. Because dropout prevention efforts are typically focused in high school, it could be expected that high school teachers would have a keener perception of dropout risk factors as well as dropout prevention efforts and teachers' roles in them. On the other hand, Andrews (2011) notes that many middle school teachers do not know what to do with struggling students as they sometimes wait and hope for maturity or adjustment to middle school. These teachers may not realize they are observing the beginnings of the process of dropping out (Balfanz, 2009; Neild, et al., 2007).

Data was collected from questionnaires administered electronically to these middle school and high school teachers. The survey instrument primarily included questions that can be measured quantitatively but included two open-ended questions where participants could expand on specific perceptions. The perceptions of middle school and high school teachers as it relates to dropout risk factors, dropout interventions, and the role of teachers in dropout prevention and intervention were quantified using a Likert scale and were the dependent variable. Previous studies have been conducted (e.g., Bridgeland, et al., 2009; Knesting-Lund, et al., 2013; Knesting-Lund, et al., 2015) to survey teachers and administrators on their perceptions of at-risk students' reasons for dropping out, supporting the dependent variables in this study.

Survey research is the method of choice because questionnaires, particularly in an online format, are extremely economical while allowing respondents to remain anonymous. In addition, they utilize standard questions, can be administered and scored easily, and allow respondents time to think about responses. Gall, Borg, and Gall (2006) note that the highly-structured and standardized design of a questionnaire is compatible with quantitative research. Data collected from the questionnaires were used to describe perceived knowledge of middle school and high school core-area (English/language arts, mathematics, science, and social studies) teachers as to

dropout risk factors and interventions and whether the contributing factors in a student's decision to drop out are primarily school-centered or student-centered.

Research Questions

Since the transition to high school is seen as vital to high school completion and since increasing evidence indicates risk factors manifest in middle school, the perspectives of teachers in both middle and high school are important in developing effective dropout prevention strategies and programs.

The following three questions served as guides for research into this problem:

RQ1: Is there a difference in the perceived importance of dropout risk factors between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

RQ2: Is there a difference in the perceived knowledge of dropout interventions between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

RQ3: Is there a difference in the perceived importance of teachers in dropout interventions between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

Null Hypotheses

The following research hypotheses will be explored in this study:

H₀1: There will be no significant difference in the perceived importance of dropout risk factors between middle and high school core-area teachers.

H₀2: There will be no significant difference in the perceived knowledge of dropout interventions between middle and high school core-area teachers.

H₀₃: There will be no significant difference between the perceived importance of teachers in dropout interventions between middle and high school core-area teachers.

Participants and Setting

Participants in this study were 165 high school and middle school teachers of English/language arts, mathematics, science, and social studies in a school district in the southeastern United States. Student enrollment in this district is approximately 35,000, and there are eight traditional high schools and 12 traditional middle schools in this district. The makeup of schools varies from rural to suburban to semi-urban, and a broad spectrum of socioeconomics is represented within each school's student body as well. This district includes three non-traditional high schools, an alternative high school, and an alternative middle school. These schools were excluded from the study due to their unique roles and focus within the district.

The survey instrument was sent to 327 teachers and 173 responded for a response rate of 52.9%, which exceeds Creswell's (2012) acceptable rate of 50% for survey research. Of the 173 responses, four declined consent and four more self-identified as not teaching a core-area subject, resulting in $N = 165$. Of the 165 valid responses, 92 were from middle school teachers, and 73 were from high school teachers.

The sample of 327 teachers was a convenience sample, selected from the school district in which the researcher is employed and was chosen by the researcher based on the literature demonstrating the transition from middle to high school as being one of the most crucial times in predicting and preventing dropouts (Cohen & Smerdon, 2009; Habeeb, 2013; McNeil, et al., 2008; Neild, 2009; Pharris-Ciurej, et al., 2012). Core academic teachers were chosen as opposed to elective area teachers due to the academic focus and likelihood of focus on college preparation. While Lodico, et al. (2010) note that convenience samples are typically not random,

the variety of participants and broad makeup of the schools ensure some diversity among respondents. The variety of schools within the district (rural, suburban, high-poverty, etc.) allow for a degree of generalization of results.

The survey used was created by Knesting-Lund, Reese, & Boody (2013) and used for their research regarding the perceptions of teachers of high school dropouts; the author gave permission to the researcher to adapt the survey for use in this research (see Appendix A). It was introduced to participants through a request to participate via district email. Participants were assured their participation was entirely voluntary and used for information gathering purposes only.

The number of core-area subject teachers varied from school to school based on each school's population. Creswell (2012) describes a cross-sectional design that compares two or more educational groups, and this sample will consist of two groups for comparison. The first group consisted of core-area high school teachers and was drawn from teachers of English/language arts, mathematics, science, and social studies at the eight traditional high schools in the target district. The second group consisted of core-area teachers in the same subject areas at the 12 traditional middle schools in the district. Creswell (2012) offers that "a questionnaire response rate of 50% is considered adequate for most surveys" (p. 407). The survey link was sent to 148 core-area high school teachers and 174 core-area middle school teachers in the district for a total of 322 teachers; 173 responded, for a participation rate of 52.9%, thereby meeting Creswell's response rate threshold.

Relevant information about the high schools selected for this study is found in Table 1. The corresponding information for middle schools is found in Table 2.

Table 1

Demographic information for district high schools

<u>School</u>	<u>Enrollment</u>	<u>% Economically</u>	<u>% Proficient</u>	<u>4-Year</u>
		<u>Disadvantaged</u>	<u>End-of-Course</u>	<u>Graduation Rate</u>
			<u>(2013-14)</u>	<u>(2013-14)</u>
HS1	1599	34.3	56.9	87.9
HS2	938	30.8	67.6	89.5
HS3	987	30.2	63.2	85.5
HS4	677	52.8	45.4	81.1
HS5	867	24.0	64.7	88.2
HS6	1117	54.2	52.5	92.1
HS7	1209	68.0	42.4	78.5
HS8	1570	33.0	56.5	87.4

Table 2

Demographic information for district middle schools

<u>School</u>	<u>Enrollment</u>	<u>% Economically</u> <u>Disadvantaged</u>	<u>% Proficient</u> <u>End-of-Grade</u> <u>(2013-14)</u>
MS1	935	33.1	58.2
MS2	421	24.7	46.2
MS3	762	37.4	56.1
MS4	1073	24.6	72.8
MS5	551	60.8	50.8
MS6	786	36.1	59.4
MS7	596	34.1	51.9
MS8	618	51.5	59.3
MS9	867	24.0	57.6
MS10	1040	24.7	68.7
MS11	388	88.9	34.2
MS12	729	72.6	40.5

Instrumentation

The data collection instrument for this study was a research-based survey instrument entitled “Teacher Perceptions of Dropout Factors and Interventions” and was first utilized in a peer-reviewed study by Knesting-Lund, Reese, & Boody (2013). Permission was granted by the author to use the instrument in this study; see Appendix A for permission. The pilot study was

conducted in response to the fact that research into dropout prevention often focused on factors directly related to the student and did not account for the role teachers play in a student's decision to drop out. The initial study surveyed 95 high school teachers in a midwestern school district and found that teacher perceptions tended to focus on factors outside of their control, and one-fourth of the teachers surveyed suggested they had only limited influence on a student's decision to drop out. The instrument has been used in other studies, including Knesting-Lund, O'Rourke, & Gabriele (2015) and Vierbuchen (2015), and in those instances the findings were similar, in that teachers perceived external factors beyond their control as having a greater influence on student dropout as opposed to school-based and teacher-based factors.

The purpose of the instrument is to assess the perceived knowledge of middle school core-area teachers and high school core-area teachers as to dropout risk factors and interventions. See Appendix C for the instrument. The instrument consisted of 30 questions overall. The first four were demographic questions to ascertain school, subject area taught, years of teaching experience, and gender. The next six questions utilized a Likert scale to assess perceptions of the dropout problem in the school and district and the importance of teachers in dropout prevention, where 1 equals not important and 5 equals most important. Following that, there were 18 questions to assess perceptions of research-identified dropout risk factors. These questions likewise used a Likert scale where 1 equals not important and 5 equals most important. There were two open-ended questions, allowing participants to expand on their perceptions of risk factors and prevention strategies. Cronbach's alpha was used to determine the internal consistency reliability for the items on the Teacher Perceptions of Dropout Risk Factors instrument, and the resulting alpha coefficient was computed at 0.79. Acceptable reliability for research purposes is considered to be a coefficient of .7 or greater (George & Mallery, 2003).

The survey was made available online through a Google form as this district frequently administers various surveys, and teachers were familiar with this format. Participants were provided a link to the survey website and completed the survey anonymously on their own using the link. The link was initially provided through a district email; a follow-up email was sent two weeks later to encourage participation. The Google form program tallied the answers, and then the data was transferred into IBM SPSS version 24 software for disaggregation, descriptive statistics, and t-test analysis.

Procedures

To accomplish this study, the researcher first received approval from the superintendent of the school district to conduct research in the target district. See Appendix E for school district approval to conduct research in the district. Once that approval was gained, the size of the sample of core-area middle and high school teachers was determined. From there, approval was sought and granted from the Liberty University Institutional Review Board (IRB). See Appendix D for IRB approval. The researcher then transferred the instrument authored by Knesting-Lund, Reese, & Boody (2013) into an online survey as a Google form, a survey method familiar to teachers in the target district.

Once the instrument was in place, the researcher worked with the district's public information office to distribute an email containing a link to the survey via an email list that includes every middle and high school teacher in the county. The invitation email explained the purpose of the survey, instructions for completing the survey, and a statement of consent. Working in concert with the public information office, a schedule for administration was devised. The initial email was sent to targeted teachers, and the researcher followed up with the public information office to ensure the email invitation was distributed and that the survey was

administered without problems. Fifteen days after the initial email was sent, a follow-up email was sent to targeted staff. The survey link remained open for a total of 23 days; at which time there was a sufficient response rate to close the survey and begin data analysis.

Analysis

The IBM Statistical Package for the Social Sciences (SPSS) software was used to analyze the data in this study. Data generated from the surveys was compiled and entered into the SPSS version 24 program. SPSS outputs of descriptive statistics such as frequencies, percent, means, and standard deviations were then generated. The mean as well as standard deviation and standard error were reported for the 24 Likert scale questions.

All three research questions were analyzed using independent t-tests in SPSS version 24 to determine if there was a significant difference between the groups on the dependent variable. Gall, et al. (2006) note that statistical significance tests are performed when it is desired to compare probability of the differences found in the research sample to the population from which they were drawn. Specifically, an independent sample t-test is the most appropriate statistical method for comparing the mean scores of the two research groups on the survey items. An independent sample t-test was performed to determine if there was a statistically significant difference ($p \leq .05$) in the results of the three research questions. Assumption testing included examining responses for independence; a visual analysis of the histograms, normal Q-Q plots, box plots, and skewness and kurtosis values generated from the SPSS software for normal distribution; and applying Levene's test for equality of variances. Data screening was done by examining the survey responses for outliers, missing data, and inconsistencies, as well as creating boxplots to identify extreme outliers. The resulting effect sizes of each research question were then identified using Cohen's d.

Table 3 summarizes the statistical procedure that was utilized for each research hypothesis:

Table 3

Statistical procedures for each research question

<u>Research Question</u>	<u>Descriptive Statistics</u>	<u>Procedure</u>	<u>α level</u>
RQ1: Is there a difference in the perceived importance level of middle and high school core-area teachers specific to dropout risk factors?	Frequency Mean Percent Standard Deviation Standard Error	Independent Samples t-test	$p \leq .05$
RQ2: Is there a difference in the perceived knowledge level of middle and high school core-area teachers specific to dropout interventions?	Frequency Mean Percent Standard Deviation Standard Error	Independent Samples t-test	$p \leq .05$
RQ3: Is there a difference in the perceived importance of teachers in dropout interventions between middle and high school core-area teachers?	Frequency Mean Percent Standard Deviation Standard Error	Independent Samples t-test	$p \leq .05$

CHAPTER FOUR: FINDINGS

The primary purpose of this quantitative nonexperimental survey study was to examine the perceived knowledge of and differences in perceptions of dropout risk factors and prevention strategies between teachers of core-area subjects (English/language arts, mathematics, science, and social studies) at 12 middle schools and eight high schools in a semi-suburban/semi-rural school district in the southeastern United States. The results were compared on the three research questions, which addressed the differences between middle and high school core-area teachers in perceived importance of dropout risk factors, the perceived knowledge of dropout interventions, and the perceived importance of teachers in dropout interventions.

This chapter is organized into four main sections. The first section restates the research questions and null hypotheses that drove the study. The second section contains the descriptive statistics related to the study. The third section describes the data analysis and results for each of the three research questions. The fourth section includes a detailed summary of the study results.

Research Questions

The following research questions were used to guide the study:

RQ1: Is there a difference in the perceived importance of dropout risk factors between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

RQ2: Is there a difference in the perceived knowledge of dropout interventions between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

RQ3: Is there a difference in the perceived importance of teachers in dropout interventions between middle and high school core-area teachers as measured by the Teacher Perceptions of Dropout Factors and Interventions survey?

Null Hypotheses

The following research hypotheses were explored in this study:

H₀₁: There will be no significant difference in the perceived importance of dropout risk factors between middle and high school core-area teachers.

H₀₂: There will be no significant difference in the perceived knowledge of dropout interventions between middle and high school core-area teachers.

H₀₃: There will be no significant difference between the perceived importance of teachers in dropout interventions between middle and high school core-area teachers.

Descriptive Statistics

The survey research instrument “Teacher Perceptions of Dropout Factors and Interventions” was distributed via email with a link to the online survey to 327 middle and high school teachers of English/language arts, mathematics, science, and social studies in the target district. There were 173 responses, of which eight were removed, as described below in the data screening section. This left 165 valid survey responses for a response rate of 50.5%, which is an acceptable rate of response for survey-based research according to Creswell (2012). Of the 165 responses, 73 (44.2%) were from high school teachers, and 92 (55.8%) were from middle school teachers. Responses were received from all 20 traditional middle and high schools, demonstrating the responses were representative of the entire sample population. The 165 valid responses were then tabulated according to the variables described in the research questions. The descriptive statistics for the overall variables are listed in Table 4.

Table 4

Descriptive statistics for overall variables

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>
Perceived importance of risk factors				
HS	73	3.65	.713	.059
MS	92	3.94	.718	.053
Perceived knowledge of dropout interventions				
HS	73	2.43	.746	.053
MS	92	2.12	.868	.054
Perceived importance of teachers in dropout prevention				
HS	73	3.64	.888	.104
MS	92	3.52	.821	.086

The survey instrument asked respondents about 18 risk factors identified by the research as important in a student's decision to drop out. Survey responses were on a Likert scale where 1 meant "not at all," 2 meant "a little," 3 meant "somewhat," 4 meant "significantly," and 5 meant "primary." Also, "do not know/no answer" was an option, and those responses of "do not know/no answer" were excluded from tabulation. The descriptive results are listed in Table 5.

Table 5

Descriptive statistics for risk factors

<u>Risk Factor</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>
Low Academic Achievement				
HS	73	3.71	.736	.086
MS	92	4.05	.701	.073
Working up to 15 hours/week				
HS	73	2.85	.877	.103
MS	91	2.93	.854	.090
Working more than 15 hours/week				
HS	73	3.64	.888	.104
MS	91	3.52	.821	.086
Being retained or held back a grade				
HS	73	3.33	.973	.114
MS	92	3.38	.970	.101
Frequent trouble at school				
HS	73	3.93	.673	.079
MS	92	4.02	.770	.080
Getting into trouble with the law				
HS	72	3.83	.872	.103
MS	90	4.12	.747	.079

Table 5 (continued)

Descriptive statistics for risk factors

<u>Risk Factor</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>
Frequent absences from school				
HS	73	4.25	.760	.089
MS	92	4.17	.705	.073
Parenting a child				
HS	72	3.82	.893	.105
MS	87	4.10	.822	.088
Not having friends at school				
HS	73	3.01	.920	.108
MS	92	3.45	.930	.097
Not having a close relationship with a teacher				
HS	72	3.13	.855	.101
MS	92	3.58	.815	.085
Not having a sense of belonging at school				
HS	72	3.39	.865	.102
MS	92	3.71	.704	.073
Not seeing a benefit to earning a diploma				
HS	73	3.90	.988	.116
MS	92	4.05	.761	.079

Table 5 (continued)

Descriptive statistics for risk factors

<u>Risk Factor</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>
Being lazy and unmotivated				
HS	73	3.63	.965	.113
MS	92	3.59	.939	.079
Limited parental support for education				
HS	73	4.14	.918	.107
MS	91	4.13	.759	.079
Feeling physically unsafe at school				
HS	70	2.99	1.136	.136
MS	90	3.52	.992	.105
Feeling emotionally unsafe at school				
HS	73	3.05	1.066	.125
MS	90	3.29	.902	.095
Believing no one at school cares if they drop out				
HS	73	3.47	1.055	.123
MS	91	3.67	.883	.093
Believing adults at school want them to drop out				
HS	71	3.17	1.265	.150
MS	92	3.23	1.140	.119

The instrument also surveyed respondents as to dropout prevention in the target district. The first two questions asked about perception of the dropout problem in their school and in the district. A Likert scale was used where 1 meant “no problem at all”, 2 meant “mild problem”, 3 meant “moderate problem”, 4 meant “significant problem”, and 5 meant “pervasive problem”. The scale also offered the option of “do not know/no answer” and responses indicating that choice were not tabulated in the analysis. The descriptive results of these questions are listed in Table 6.

Table 6

Descriptive statistics for perception of dropout problem

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>
How much is dropout a problem at your school?				
HS	71	2.56	1.038	.123
MS	79	1.33	.539	.067
How much is dropout a problem in our district?				
HS	57	3.04	.755	.100
MS	66	2.71	.718	.088

Note. Responses of “don’t know/no answer” excluded from N value

Next the survey asked about knowledge of dropout rates at the school and district levels. Again, a sliding Likert scale was used where 1 meant “significantly decreasing”, 2 meant “somewhat decreasing”, 3 meant “no change”, 4 meant “somewhat increasing”, and 5 meant “significantly increasing.” The scale also offered the option of “do not know/no answer,” and

responses indicating that choice were not tabulated in the analysis. The descriptive results of these questions are listed in Table 7.

Table 7

Descriptive statistics for knowledge of dropout rates

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>
How would you describe your school's dropout rate over the past five years?				
HS	55	2.51	.900	.104
MS	55	2.95	2.704	.086
How would you describe the district's dropout rate over the past five years?				
HS	49	2.45	.792	.113
MS	62	2.15	.698	.089

Note. Responses of "don't know/no answer" excluded from N value

In all four of these questions, "do not know/no answer" was an option, and in none of these four questions did $N = 165$. This would suggest teachers were unfamiliar either with their school's dropout prevention efforts or those of the district.

Finally, the survey instrument asked about teachers' perceptions of their influence in a student's decision to drop out as well as their perceptions of the importance of teachers to schools' efforts to reduce dropout. Once more a Likert scale was used. For the question "How much of an influence do you believe teachers can have on a student's decision to stay in or drop out of school" an answer of 1 meant "no influence at all", 2 meant "a little influence", 3 meant

“some influence”, 4 meant “significant influence”, and 5 meant “primary influence”. For the question “How important do you believe teachers are to schools’ efforts to reduce the number of students who drop out” a response of 1 meant “not important at all”, 2 meant “a little important”, 3 meant “somewhat important”, 4 meant “significantly important”, and 5 was “primarily important”. Again, an option of “do not know/no answer” was available, and responses with that choice were excluded from tabulation. Results are listed in Table 8.

Table 8

Descriptive statistics for perception of teacher role in dropout intervention

<u>Question</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>
How much of an influence do you believe teachers can have on students’ decisions to stay in or drop out of school?				
HS	73	3.60	.721	.084
MS	92	3.88	.709	.074
How important do you believe teachers are to schools’ efforts to reduce the number of students who drop out?				
HS	73	3.71	.697	.082
MS	92	3.99	.734	.076

Results

Assumption Testing

The independent samples t-test has three underlying assumptions (Green & Salkind, 2013). The assumptions are independence, normal distribution, and equal variance. The responses on the test variables in this study are independent of each other as the core-area teachers who responded are either teaching at the middle school or high school level in the target district. There are no teachers who are teaching at both levels simultaneously, so the first assumption was met. Next both Kolmogorov-Smirnov and Shapiro-Wilk tests ($p > .05$) and a visual analysis of the histograms, normal Q-Q plots, box plots, and skewness and kurtosis values generated from the SPSS software showed that the criterion variables were approximately normally distributed. Therefore, the second assumption was met. Histograms are displayed below.

Figure 1. Histogram of perceived importance of dropout risk factors.

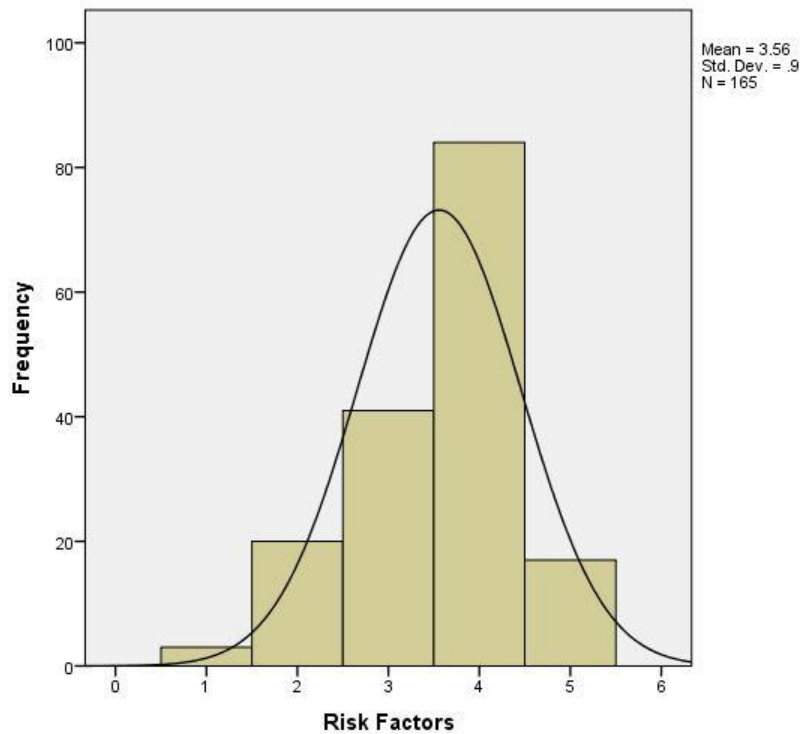


Figure 2. Histogram of perceived knowledge of dropout prevention.

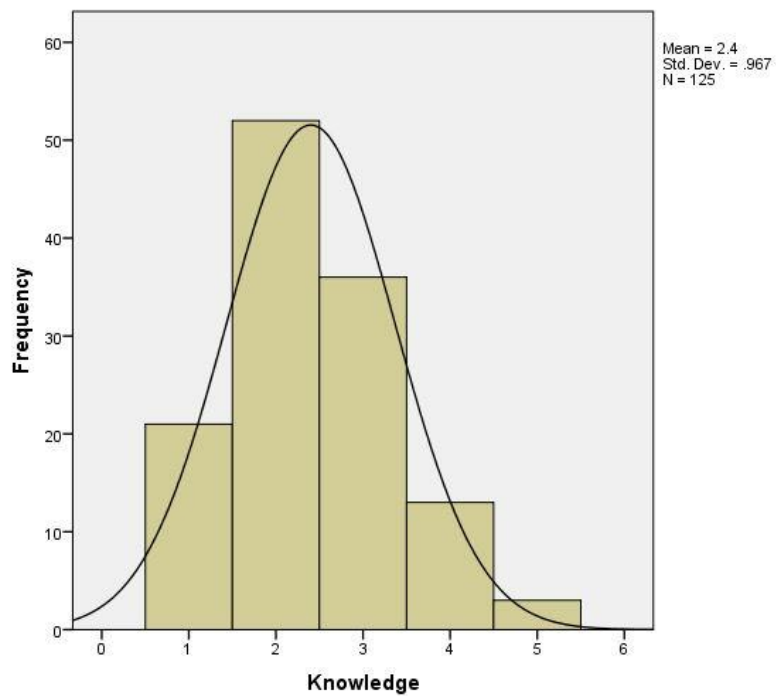
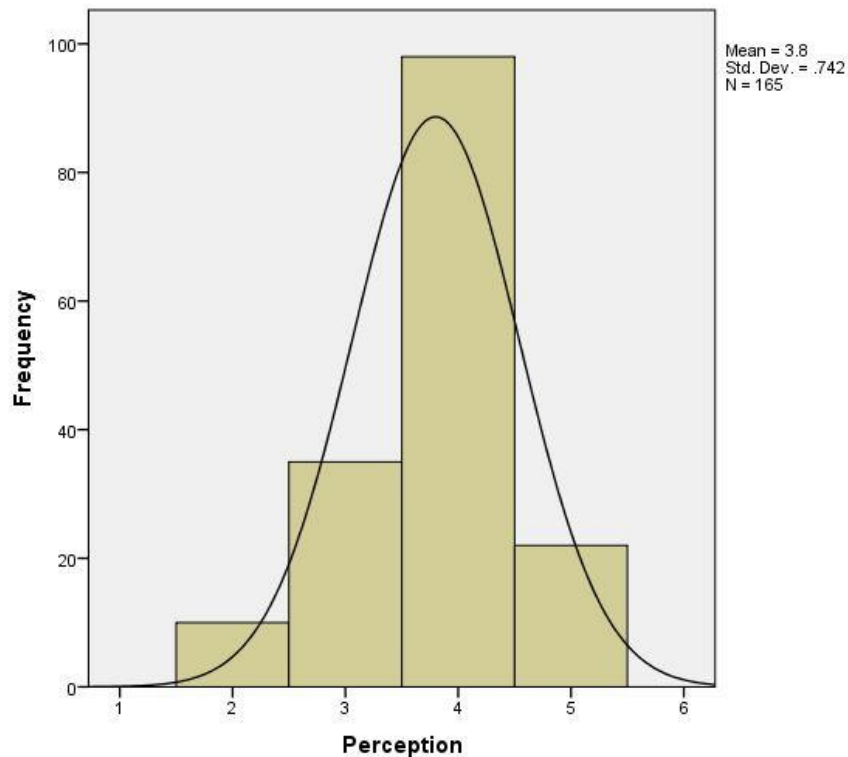


Figure 3. Histogram of perceived importance of teacher role.



Next, the Levene's test was applied to assure equality of variances. Levene's results for perceived importance of risk factors ($F = 4.46$, $p = .063$), perceived knowledge of dropout prevention ($F = 3.56$, $p = .634$), and perceived importance of teacher role ($F = 3.44$, $p = .065$) indicated equal variances and thereby met the third assumption.

In addition, an independent samples t-test generally includes an assumption of random sampling. As the study participants were a convenience sample, the assumption of random sampling was not met in its strictest form. However, given that the sample included multiple respondents from all four core subject areas and from all 20 schools within the convenience sample, the results from this survey are sufficiently robust for drawing initial conclusions. The need for a larger, more random sampling for more generalized results across all teachers is noted in the limitations and recommendations for future research in Chapter Five.

Data Screening

The researcher examined the 173 responses to the survey for outliers, missing data, and inconsistencies. Four teachers did not complete the survey and were removed from the results. Likewise, four more teachers self-identified as teaching an area primarily outside the core academic subjects and were screened out of the survey. Boxplots were examined to ensure there were no significant outliers. The boxplots for each variable are shown in Figures 4-6 below.

Figure 4. Boxplot of perceived importance of dropout risk factors.

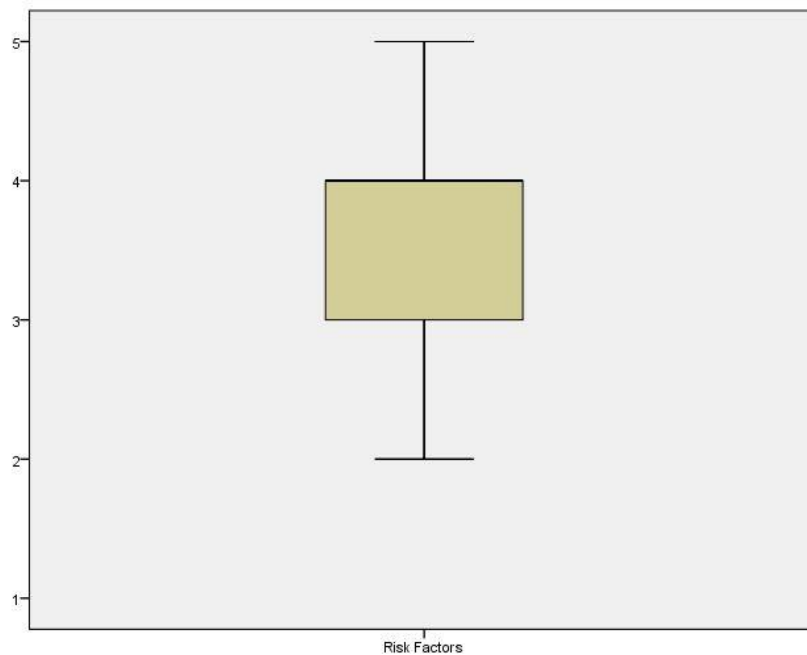


Figure 5. Boxplot of perceived knowledge of dropout prevention.

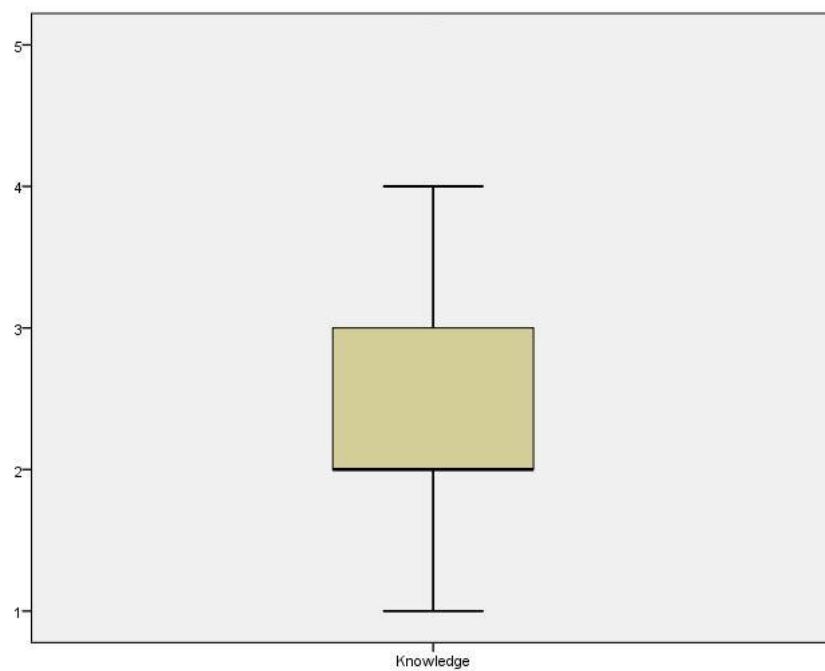
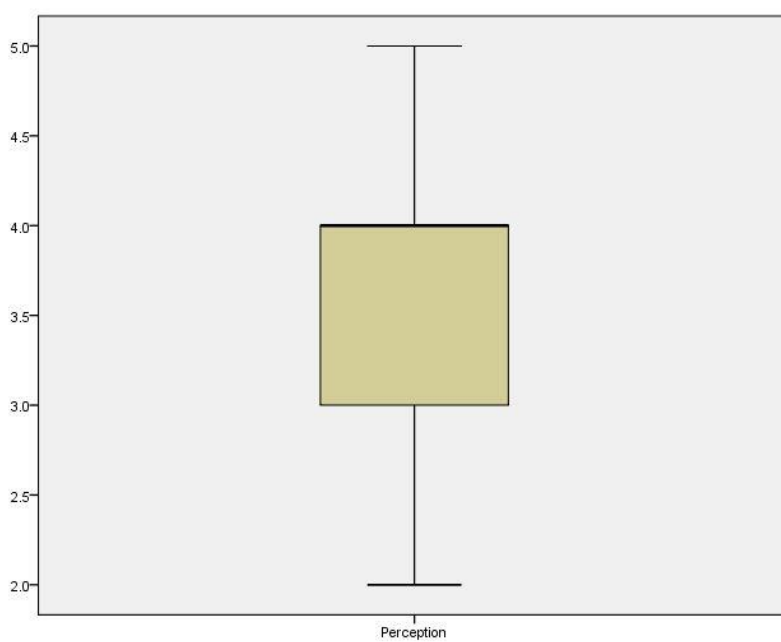


Figure 6. Boxplot of perceived importance of teacher role.



The structured nature of the Likert scale reduced the likelihood of extreme outliers and in fact no responses were discarded as such an outlier.

Null Hypothesis 1

To assess the first research question, an independent sample t-test was used to compare the mean scores on the survey results to determine if there was a statistically significant difference in the perceived importance of dropout risk factors of core-area high school teachers and core-area middle school teachers in the target school district. There was not a significant difference in the overall perceived importance of dropout risk factors between core-area high school teachers ($M = 3.54$, $SD = .99$, $N = 73$) and core-area middle school teachers ($M = 3.69$, $SD = .93$, $N = 92$); $t(163) = -1.01$, $p = .315$. The 95% confidence interval ranged from $-.44$ to $.14$. The effect size d of $.15$ suggests a low practical significance. Null Hypothesis 1 could not be rejected indicating there was no statistically significant difference in the perceived importance of dropout risk factors between middle school teachers and high school teachers. The mean, standard deviation, and t-test results for the overall results are displayed in Table 9.

Table 9

Mean, standard deviation, and t-test results (Risk Factor Perceptions)

<u>Group</u>	<u>N</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>P</u>
High School	73	3.535	.988	-1.008	.315
Middle School	92	3.686	.925		

In addition, the means, standard deviations, and t-test results were calculated for each respondent group for each of the 18 dropout risk factors identified on the survey instrument. For 14 of the 18 risk factors, the mean score of middle school teachers was higher than that of high

school teachers. Further, six of the 18 factors revealed statistically significant differences in the perception of dropout risk factors. While some individual factors did show a significant statistical difference, the overall results did allow for the null hypothesis to be rejected. These results are found in Table 10.

Table 10

Mean, standard deviation, and t-test results (Individual risk factors)

<u>Risk factor</u>	<u>High School</u>		<u>Middle School</u>		<u>t</u>	<u>P</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
Low academic achievement	3.71	.736	4.05	.701	-3.045	.003
Working up to 15 hours/week	2.85	.877	2.93	.854	-.624	.533
Working more than 15 hours/week	3.64	.888	3.52	.821	.952	.343
Being retained or held back a grade	3.33	.973	3.38	.970	-.339	.735
Frequent trouble at school	3.93	.673	4.02	.770	-.790	.431
Getting into trouble with the law	3.83	.872	4.12	.747	-2.270	.025
Frequent absences from school	4.25	.760	4.17	.705	.635	.526
Parenting a child	3.82	.893	4.10	.822	-2.085	.039
Not having friends at school	3.01	.920	3.45	.930	-2.977	.003
Not having a close relationship with a teacher	3.13	.855	3.58	.815	-3.443	.001
Not having a sense of belonging at school	3.39	.865	3.71	.704	-2.593	.010
Not seeing a benefit to earning a diploma	3.90	.988	4.05	.761	-1.103	.272
Being lazy and unmotivated	3.63	.965	3.59	.939	.290	.772

Table 10 (continued)

Mean, standard deviation, and t-test results (Individual risk factors)

Limited parental support for education	4.14	.918	4.13	.759	.050	.960
Feeling physically unsafe at school	2.99	1.136	3.07	.992	-.480	.632
Feeling emotionally unsafe at school	3.05	1.066	3.29	.902	-1.518	.131
Believing no one at school cares if they drop out	3.47	1.055	3.67	.883	-1.352	.178
Believing adults at school want them to drop out	3.17	1.265	3.23	1.140	-.314	.754

Null Hypothesis 2

To assess the second research question, an independent sample t-test was used to compare the mean scores on the survey results to determine if there was a statistically significant difference in the perceived knowledge of dropout interventions of core-area high school teachers and core-area middle school teachers in the target school district. There was a statistically significant difference in the overall perceived knowledge of dropout interventions between core-area high school teachers ($M = 2.43$, $SD = .75$, $N = 73$) and core-area middle school teachers ($M = 2.12$, $SD = .87$, $N = 92$); $t(163) = 2.423$, $p = .017$. The 95% confidence interval ranged from .06 to .56. The effect size d of .38 suggests a low to moderate practical significance. Null Hypothesis 2 was rejected, indicating a statistically significant difference in the perceived knowledge of dropout interventions between middle school teachers and high school teachers. The mean, standard deviation, and t-test results for the overall results are displayed in Table 11.

Table 11

Mean, standard deviation, and t-test results (Knowledge of dropout interventions)

<u>Group</u>	<u>N</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>P</u>
High School	73	2.43	.746	2.423	.017
Middle School	92	2.12	.868		

Additionally, the means, standard deviations, and t-test results were calculated for each respondent group for each of the four areas of knowledge about dropout intervention surveyed on the instrument. The variance in responses is reflected in the rejection of the null hypothesis. These survey questions were measured on a Likert scale where lower numbers represented less dropout impact and an improving dropout rate, while a score of 3 represented no change and higher numbers represented an increase in dropouts. In addition, as previously noted, significant numbers of teachers responded “don’t know” to individual questions on the survey instrument in this area. These results are summarized in Table 12.

Table 12

Mean, standard deviation, and t-test results (Dropout prevention questions)

Intervention	High School		Middle School		<i>t</i>	<i>P</i>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
How much of a problem is dropout at your school?	2.56	1.038	1.33	.593	9.051	.003
How much of a problem is dropout in the district?	3.04	.755	2.71	.718	2.428	.323
How would you describe your school's dropout rate in the last 5 years?	2.51	.900	2.95	2.704	-1.136	.259
How would you describe the district's dropout rate in the last 5 years?	2.45	.792	2.15	.698	2.146	.034

Null Hypothesis 3

The final research question was assessed using an independent sample t-test to compare the mean scores on the survey results to determine if there was a statistically significant difference in the perceived importance of teachers in dropout prevention of core-area high school teachers and core-area middle school teachers in the target school district. There was a statistically significant difference in the overall perceived importance of teachers in dropout prevention between core-area high school teachers ($M = 3.65$, $SD = .71$, $N = 73$) and core-area middle school teachers ($M = 3.94$, $SD = .72$, $N = 92$); $t(163) = -2.59$, $p = .011$. The 95% confidence interval ranged from $-.51$ to $-.07$. The effect size d of $.40$ suggests a moderate practical significance. Null Hypothesis 3 was rejected, indicating a statistically significant

difference in the perceived importance of the role of teachers in dropout interventions between middle school teachers and their high school counterparts. The mean, standard deviation, and t-test results for the overall results are displayed in Table 13.

Table 13

Mean, standard deviation, and t-test results (Perception of teacher role)

<u>Group</u>	<u>N</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>P</u>
High School	73	3.65	.713	-2.585	.011
Middle School	92	3.94	.718		

Further, the means, standard deviations, and t-test results were calculated for each respondent group for each of the questions about perception of the role of teachers in dropout prevention as surveyed on the instrument. These results are listed in Table 14.

Table 14

Mean, standard deviation, and t-test results (Teacher role questions)

Perception	High School		Middle School		<u>t</u>	<u>P</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
How much of an influence do you believe teachers have on students' decisions to stay in or drop out of school?	3.60	.721	3.88	.709	-2.480	.014
How important do you believe teachers are to schools' efforts to reduce the number of students who drop out?	3.71	.697	3.99	.734	-2.461	.015

Summary

The study revealed the following for each of the research questions:

First, the null hypothesis for Research Question 1 was not rejected, meaning there was no statistically significant difference in the perceived importance of 18 dropout factors identified from the literature as key to a student's decision to drop out or stay in school. While there were statistically significant differences in perceptions for six of the 18 individual factors, the overall measure showed no statistical significance in the perceived importance.

Second, the null hypothesis for Research Question 2 was rejected, meaning there was a statistically significant difference in the perceived knowledge of middle school teachers of dropout interventions compared to their high school counterparts.

Finally, the null hypothesis for Research Question 3 was rejected, demonstrating a statistically significant difference in the perceived importance of the role of teachers in dropout prevention.

CHAPTER FIVE: CONCLUSIONS

Discussion

The purpose of this survey research study was to examine the perceived importance of dropout risk factors, perceived knowledge of dropout prevention strategies, and perceived role of teachers in dropout prevention between teachers of core-area subjects (English/language arts, mathematics, science, and social studies) at 12 middle schools and eight high schools in a semi-suburban/semi-rural school district in eastern North Carolina. There were 92 middle school teachers and 73 high school teachers who participated in the study, for a total of 165 teachers from the target district. Teachers completed the survey instrument, “Teacher Perceptions of Dropout Risk Factors and Interventions,” which had been used in other peer-reviewed studies, in an online format. The study data revealed there were no statistically significant differences in the perception of importance of 18 dropout risk factors between high school and middle school teachers in the target district. The study further demonstrated that there were statistically significant differences in the perceived knowledge of dropout interventions between high school and middle school teachers. Middle school teachers perceived dropouts as less of a problem in their schools and the district’s efforts in dropout prevention being more effective than their high school counterparts. Finally, the study demonstrated that there were statistically significant differences in the perceived importance of the role of teachers in dropout prevention efforts. Middle school teachers perceived their role in both their schools’ and district’s efforts as more important than their high school counterparts perceived their role. Likewise, middle school teachers perceived their role in a student’s decision to drop out as more important than high school teachers did.

Null Hypothesis 1

The first research question asked if there was a statistically significant difference in the perceived importance of 18 risk factors that have been identified in the research as key considerations in a student's decision to drop out of school. The null hypothesis stated that there was no significant difference in the perceived importance of dropout risk factors between core-area high school teachers and core-area middle school teachers in the target district. The overall perceived importance of dropout risk factors between core-area high school teachers ($M = 3.535$, $SD = .988$, $N = 73$) and core-area middle school teachers ($M = 3.686$, $SD = .925$, $N = 92$) resulted in $t(163) = -1.008$, $p = .315$, meaning the null hypothesis could not be rejected. Therefore, there was no statistical difference in the overall perception of dropout risk factors between high school teachers and middle school teachers.

Looking beyond the overall results yields two points for consideration and how these points line up with the literature. First, there were six risk factors when, computed individually, were not statistically significant in differences in perceptions between high school and middle school teachers. Those factors were low academic achievement, getting into trouble with the law, parenting a child, not having friends at school, not having a close relationship with a teacher, and not having a sense of belonging at school. Low academic achievement is one of the bedrock at-risk factors that identify potential dropouts as early as middle school. Neild, Balfanz, and Herzog (2007) followed a group of students longitudinally and were able to predict with nearly 80% accuracy as early as sixth grade those students who would drop out based primarily on academic performance, particularly in math and reading. Likewise, Johnson and Semmelroth (2010) identified poor academic performance as measured by grades, test scores, and lack of promotion as one of three driving factors for dropping out.

Christenson and Stout (2009) categorized the dropout risk factors found in their study into three main categories: educational experience, social background, and school structure. Educational experience certainly encompasses low academic performance, while legal trouble (including incarceration) and parenting a child fall into the social background category. Legal trouble and parental responsibility lead to absenteeism, which manifests in both academic deficiency and social disengagement, reducing connections to the school environment and pushing students toward dropout.

The last three factors where there was no significant difference in the perceptions of high school and middle school teachers were not having friends at school, not having a sense of belonging at school, and not having a close relationship with a teacher and are all extensively covered in the literature. Fall and Roberts (2012) use the self-system model of motivational development as a theoretical framework to describe the processes that initiate and maintain a decline in student engagement, putting students on a path to dropping out. Engagement can be measured by being involved as a student, knowing others, feeling cared for, or feeling excluded (Neild, et al., 2008). Neild also describes the social context of school as including building positive relationships with teachers.

The unifying thread to these six factors is Bandura's (1977) social learning theory, which includes a person's biological and physical characteristics, behavior, and environment. Social learning theory and how a person reacts to his or her environment by his or her behavior and according to his or her biological and physical characteristics is the driving force behind what constitutes risk factors. A person's influences and experiences drive the choices he or she makes, whether he or she chooses to persist in school or drop out.

Null Hypothesis 2

The second research question asked if there was a statistically significant difference in the perceived knowledge of dropout interventions between high school and middle school teachers in the target district. The null hypothesis stated there was no statistical difference in the perceived knowledge of these interventions between the two groups. The overall perceived knowledge of dropout interventions between core-area high school teachers ($M = 2.43$, $SD = .746$, $N = 73$) and core-area middle school teachers ($M = 2.12$, $SD = .868$, $N = 92$) resulted in $t(163) = 2.423$, $p = .017$, meaning the null hypothesis was rejected and that there was a statistically significant difference in the perceived knowledge of dropout interventions between the two groups.

What stood out in the analysis of this data was the noticeable number of teachers who did not select a choice on the Likert scale and instead answered “do not know/no answer.” In none of the four questions in this part of the survey did all 165 respondents choose an answer. Only 15 participants (9% of respondents) chose “do not know/no answer” for the question “How much of a problem is dropout at your school” but 43 (26%) chose “do not know/no answer” for “How much of a problem is dropout in our district” Similarly, 55 (33% of respondents) chose “do not know/no answer” as a response to the question about their school’s five-year dropout rate, and 54 (33%) chose “do not know/no answer” for the district’s five-year dropout rate. In all four cases the “do not know/no answer” response rate was greater for middle school teachers than for high school teachers. This is consistent with the literature since much of the focus of identifying potential dropouts and developing dropout intervention has focused on high schools (Cushman, 2006; Johnson & Semmelroth, 2010). Similarly, dropping out has largely been considered a high school problem so much of the existing research has taken place with both high school students

and high school teachers (Knesting-Lund, et al., 2013; Knesting-Lund, O'Rourke, & Gabriele, 2015).

Null Hypothesis 3

The third research question asked if there was a statistically significant difference in the perceived role of teachers in dropout prevention at the school level and in a student's decision to drop out. The null hypothesis was that there was no statistically significant difference in the perceived role of teachers in dropout prevention between high school and middle school teachers. The overall perceived importance of teachers in dropout prevention between core-area high school teachers ($M = 3.65$, $SD = .713$, $N = 73$) and core-area middle school teachers ($M = 3.94$, $SD = .718$, $N = 92$) resulted in $t(163) = -2.585$, $p = .011$, meaning the null hypothesis was rejected and there was a statistically significant difference in the perceived role of teachers in dropout prevention and intervention between the two groups.

The data revealed that middle school teachers perceived teachers to be more important in dropout prevention at the school level and in the students' decision(s) to drop out than high school teachers. This finding was somewhat surprising given that most dropout prevention programs are implemented at the high school level and the focus of high school is on completion and graduation as opposed to middle school where the focus is often on getting to high school. Bridgeland, et al. (2009) reported on the disconnect that seems to exist between what teachers and administrators think is effective and what at-risk students said was effective in keeping them in school. Stearns, et al. (2007) noted the change in relationships between teachers and students from middle to high school, while Montgomery and Hirth (2011) offer that middle school is more personalized within the student experience than high school.

Conclusion

School dropout is a significant social and economic concern in the United States. Given the increased demands of education, skills, and training in the 21st century, a bleak economic future often awaits high school dropouts. These dropouts face reduced earning potential, higher rates of incarceration and unemployment, and poorer health outcomes than high school graduates. Dropouts are also disproportionately minority. Steps must be taken to address the needs of at-risk students and equip them with the supports needed to successfully graduate from high school.

The literature supports the idea that dropping out is usually the culmination of a process and not generally the result of a single event. Social learning theory, the self-system model of motivational development, self-determination theory, and cognitive theory all contribute to how students in the crucial middle grades and high school develop as a person and respond to the intellectual, physical, emotional, and environmental challenges faced during this time. Because compulsory attendance requires students to stay in school until age 16 (or older in some states), much of the research into dropping out of school has focused on high school. There is particular interest in the area of high school transition when students transition from eighth to ninth grade. This is the most crucial transition in a student's academic career, and that is a logical point to study risk factors and interventions.

There is a growing body of literature, however, that suggests potential dropouts can be identified earlier than ninth grade, sometimes much earlier. Research has shown that students at-risk of dropping out can be identified with significant accuracy as early as sixth grade based on indicators such as attendance, behavior and discipline, and classroom performance, especially in reading and math. Emerging research also supports the idea that interventions should begin as

soon as these risk factors begin to manifest. If these factors can be identified in middle school, it follows that middle school teachers should be ready to identify and respond to students at risk for dropping out.

This study sought to examine the differences in perceptions of dropout risk factors and interventions of high school teachers in the core academic areas of English/language arts, math, science, and social studies and the perceptions of middle school teachers in the same core academic areas. Specifically there were three research questions the study sought to explore. First, was there a difference in the perception of dropout risk factors between high school and middle school teachers? The study revealed that there was no statistically significant difference between the perceptions of risk factors between the two groups overall. In other words, high school and middle school teachers held these risk factors to be roughly of equal importance.

Second, was there a difference in the perception of knowledge of dropout interventions between high school and middle school teachers? The data showed that there was a statistically significant difference in the perception of high school teachers and middle school teachers. Middle school teachers found dropout to be less of a problem at their level and looked more favorably on school and district dropout prevention efforts than their high school counterparts. The other important piece of data from the second research question is that over one-quarter of respondents did not know how serious of a problem dropout was in the district, and nearly one-third of respondents did not know their individual school's or the district's five-year trend in dropout prevention.

The final research question asked was there a difference in the perception of the role of teachers in the school and district dropout prevention efforts? Again, the study showed there was a statistically significant difference between the perception of high school teachers as opposed to

middle school teachers, and that it was the middle school teachers who felt teachers themselves were more important to both their individual school's dropout prevention efforts and their role in students' decisions to drop out than high school teachers.

Implications

Among the implications of these findings are that at least in the target district middle school core-area teachers are as knowledgeable as high school teachers as to 18 research-based risk factors that contribute to students dropping out. This finding provides a solid base from which to train middle school teachers to identify students at risk for dropping out as early as possible and respond to these issues.

Middle school teachers also perceived that dropping out was less of a problem at their schools and generally had a more positive perception of the district's dropout prevention efforts than their high school counterparts. This was in some degree expected because the compulsory attendance age of 16 means few middle schoolers actually leave school, thereby perhaps coloring middle school teachers' view of dropout prevention efforts as a whole. Meanwhile high school teachers frequently experience students who actually drop out, and their perceptions are adjusted accordingly. The implication for practice in this area is educating middle school teachers to the notion that dropping out is a process and generally not a singular event (Bradshaw, et al., 2008). Middle school teachers also need to know that, as Balfanz (2009) showed, it is possible to identify more than 50% of potential dropouts in the middle grades, so while teachers perceive dropping out is not a problem at their school, middle school is often a key part of the process that ends with a student dropping out.

Another implication from this study related to the second research question is that teachers in the target district are not familiar with dropout prevention statistics in either their

school or in the district. Fully one-third of respondents chose the “do not know/no answer” option when asked about the five-year dropout trend of their school and the district. Again the results of this study are consistent with existing research that shows a focus on describing dropouts rather than on strategies to prevent them from dropping out (Knesting-Lund, et al., 2013). An opportunity exists here to better inform both middle and high school teachers about the district’s dropout strategies and about the important role dropout prevention plays in the school setting.

Perhaps the most surprising result was that this study showed that middle school teachers perceived the importance of teachers themselves as greater in both their individual school’s dropout prevention efforts and in students’ decisions to drop out than their high school counterparts. The assumption of the researcher prior to the study was that based on the focus of high schools on graduation, the inclusion of graduation rate in quantitative high school performance assessment at the state level, and the body of research dedicated to identifying and describing dropouts at the high school level that high school teachers would perceive themselves as more important to dropout prevention processes than middle school teachers. However, the results of this study showed a statistically significant difference in the perceptions of high school and middle school teachers as to the importance of teachers in dropout prevention efforts. Knesting-Lund, et al. (2013) found in their study that initially used this survey instrument, that high school teachers often perceived factors outside the school as having more influence on a student’s decision to drop out than factors controlled by the school or by teachers. An opportunity exists in the target district for educating both middle and high school teachers on the importance of teachers and their relationship to a student’s decision to drop out.

Moreover, this finding highlights the importance of this study to expanding the research to include middle school teachers in identifying and intervening with at-risk students and the crucial and emerging role of middle schools in preventing these students from dropping out and preparing the students to stay in school rather than planning to drop out. A significant gap in the literature exists regarding the role of middle schools in dropout prevention because so much of the focus has been on identifying students and intervening when they are eligible to drop out, which is typically in high school. However, the results of this study show that middle school teachers recognize their importance in dropout prevention and hold the risk factors at the same level of importance as high school teachers. Therefore, more emphasis should be given to developing the capacity of high school teachers, counselors, and administrators to identifying students at-risk for dropping out and applying interventions as soon as risk factors begin to manifest.

Limitations

There were a number of limitations to this study. First, as this was a survey research study, its research design was non-experimental, and the variables in the research could not be randomly assigned (Creswell, 2012).

Second, the sample was a convenience sample selected from the school district in which the researcher is employed. While convenience samples are often used in this type of research, it can present a challenge in making the data generalizable across a larger population of middle and high school teachers.

Third, the survey instrument used in this research study was designed for use with high school teachers and as such included questions about dropout risk factors and rates that may have been unfamiliar to middle school teachers, particularly early middle school teachers.

Fourth, the survey sample was limited to core-area teachers. However, the research shows that a strict focus on academics often is a challenge for at-risk students, who may be coming to school looking for enhanced skills in career and technical education or the arts. Including elective teachers, particularly in CTE, may have enhanced the survey results.

Finally, the study only addresses part of the gap in the literature. While these results widen the net and include middle school teachers and their perceptions into the dropout problem, the survey relied heavily on identification of risk factors and less on development and assessment of effective prevention programs, which is where the significant gap in the research exists.

Recommendations for Future Research

The following are recommendations for further research:

1. Given the relatively small sample size compared to the number of middle and high school teachers nationwide, further research should replicate the study with a larger, regional or national population in order to determine whether the results are generalizable.
2. As previously mentioned, the study should be replicated to include teachers of vocational, career, and technical education as well as teachers of the arts and other areas of high student interest outside the core. The perceptions of these teachers may vary greatly from core-area teachers.
3. The study should also be replicated to examine the differences in perceptions of teachers in districts with robust, successful dropout prevention methods and those that lack such programs.
4. Additional research should attempt to qualitatively understand teachers' perceptions of dropout risk factors and prevention methods. Teachers in this study mentioned

- factors they noticed in their experiences beyond what were included in the survey, such as health, peer influence, poverty, and cultural and home life expectations.
5. Additional analysis of the data could be used to determine whether there were statistically significant differences in perception according to teacher gender, experience, or subject area taught.
 6. Further analysis of the data could include coding of the risk factors as primarily student-centered or school-centered and performing a deeper examination of the perceptions of teachers based on those factors.

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APPENDICES

Appendix A: Request for Permission to Use Survey Instrument

Fwd: Survey instrument inquiry

Chris Kennedy <chriskennedy@johnston.k12.nc.us>

Sun 1/31/2016 5:16 PM

To: Kennedy, Christopher Bobby <ckennedy21@liberty.edu>;

From: Chris Kennedy <chriskennedy@johnston.k12.nc.us>

Date: Fri, Jun 26, 2015 at 6:56 PM

Subject: Survey instrument inquiry

To: dreese@qwaea.org

Mr. Reese,

My name is Chris Kennedy and I am a middle school principal in North Carolina as well as a doctoral candidate at Liberty University. As part of my dissertation research I read your article, "Teachers' Perspectives of High School Dropout and Their Role in Dropout Prevention." This is very much in line with my research as I am interested in the perceptions of middle school teachers as it relates to their knowledge of early dropout prevention and intervention. I am specifically interested in the 18 factors you used in the survey instrument.

I have tried without success for about five months now to gain a copy of the survey instrument you used for that article from Dr. Knesting-Lund. About three months ago she sent me an email saying she thought it was on her office computer but it wasn't and she would send me a copy when she arrived back home (see email below). I never received anything from her and have had no luck in contacting her since.

Would you be able and willing to share with me the survey you used in that piece, and would you allow me to use it for my own dissertation research? I appreciate any advice and direction you might be willing to provide in this area.

Thank you in advance for your response to my request. I look forward to hearing from you.

Regards,
CK

Chris Kennedy, Principal
South Campus Community Middle School
Office: 919-934-8481
Fax: 919-938-3555
chriskennedy@johnston.k12.nc.us

Fwd: High School Dropout Survey final version

Chris Kennedy <chriskennedy@johnston.k12.nc.us>

Sun 1/31/2016 5:18 PM

To: Kennedy, Christopher Bobby <ckennedy21@liberty.edu>;

 1 attachment (462 KB)

High School Dropout Survey final version.docx

From: **Dustin Reese** <dreese@qwaea.org>

Date: Fri, Jun 26, 2015 at 7:54 PM

Subject: High School Dropout Survey final version

To: "chriskennedy@johnston.k12.nc.us" <chriskennedy@johnston.k12.nc.us>

Cc: "knestink@uww.edu" <knestink@uww.edu>

Chris,

Attached is the survey that was used. You have my permission to use it. Good luck with your research.

Appendix B: Survey Introduction

October 2016

Dear Johnston County Schools middle school/high school teacher:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education degree. The purpose of my research is to test the differences in perceptions of dropout risk factors and dropout prevention methods between middle school and high school core-area (English/language arts, mathematics, science, and social studies) teachers. Examining these differences will help add to the research on dropout prevention and the development of effective interventions, and I would like to invite you to participate in my study.

If you are a core area teacher at a traditional middle or high school in Johnston County and are willing to participate, you will be asked to complete a brief, 30-question survey about perceptions of dropout characteristics and interventions. It should take approximately 10-15 minutes for you to complete the survey. Your participation will be completely anonymous, and no personal, identifying information will be required.

To participate, click on the link below to complete the survey. A consent document is provided as the first page you will see after you click on the survey link. Please click on the “I agree” button at the end of the consent information to indicate that you have read the consent information and would like to take part in the survey.

Thank you for your willingness to participate in this research study!

Sincerely,

Chris Kennedy
Doctoral Candidate
Liberty University

Appendix C: Survey Instrument

Teacher Perceptions of Dropout Factors and Interventions

Christopher B. Kennedy

Liberty University

School: _____

Primary Content Area Taught (check all that apply):

<input type="checkbox"/>	English/Language Arts	<input type="checkbox"/>	Science	<input type="checkbox"/>	Career/Technical	<input type="checkbox"/>	Fine Arts
<input type="checkbox"/>	Math	<input type="checkbox"/>	Social Studies	<input type="checkbox"/>	Foreign Language	<input type="checkbox"/>	Other Elective

Current Grade Level(s) Taught (check all that apply):

<input type="checkbox"/>	sixth	<input type="checkbox"/>	seventh	<input type="checkbox"/>	eighth	<input type="checkbox"/>	ninth	<input type="checkbox"/>	10th	<input type="checkbox"/>	11th	<input type="checkbox"/>	12th
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Years Teaching:

<input type="checkbox"/>	1-5	<input type="checkbox"/>	6-10	<input type="checkbox"/>	11-15	<input type="checkbox"/>	16-20	<input type="checkbox"/>	21-25	<input type="checkbox"/>	26+	<input type="checkbox"/>
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Gender:

<input type="checkbox"/>	Female	<input type="checkbox"/>	Male
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On a scale of 1 to 5, how much of a problem is dropout at your school?

1	2	3	4	5	NA
Not a problem	Mild problem	Moderate problem	Significant problem	Pervasive problem	Do not know/ No Answer

On a scale of 1 to 5, how much of a problem is dropout in our district?

1	2	3	4	5	NA
Not a problem	Mild problem	Moderate problem	Significant problem	Pervasive problem	Do not know/ No Answer

On a scale of 1 to 5, how would you describe your school's dropout rate during the last five years?

1	2	3	4	5	NA
Significantly decreasing	Somewhat decreasing	No change	Somewhat increasing	Significantly increasing	Do not know/ No Answer

On a scale of 1 to 5, how would you describe the district's dropout rate during the last five years?

1	2	3	4	5	NA
Significantly decreasing	Somewhat decreasing	No change	Somewhat increasing	Significantly increasing	Do not know/ No Answer

On a scale of 1 to 5, how much of an influence do you believe teachers can have on students' decisions to stay in or drop out of school?

1	2	3	4	5	NA
No influence at all	A little influence	Some influence	Significant influence	Primary influence	Do not know/ No Answer

On a scale of 1 to 5, how important do you believe teachers are to schools' efforts to reduce the number of students who drop out?

1	2	3	4	5	NA
Not important at all	A little important	Somewhat important	Significantly important	Primarily important	Do not know/ No Answer

What type of influence do educators have on students' decisions to stay in or drop out of school?

How much do you believe each of the following factors contribute to students' decision to drop out of school?

	Not at all	A little	Somewhat	Significantly	Primary	Don't
	1	2	3	4	5	Know/ No Answer
Low academic achievement	1	2	3	4	5	NA
Working up to 15 hours a week	1	2	3	4	5	NA
Working more than 15 hours a week	1	2	3	4	5	NA
Being retained or held back a grade	1	2	3	4	5	NA
Frequently getting into trouble at school	1	2	3	4	5	NA
Getting into trouble with the law	1	2	3	4	5	NA
Frequent absences from school	1	2	3	4	5	NA
Parenting a child	1	2	3	4	5	NA
Not having friends at school	1	2	3	4	5	NA
Not having a close relationship with a teacher	1	2	3	4	5	NA

Not having a sense of belonging at school	1	2	3	4	5	NA
Not seeing a benefit to earning a diploma	1	2	3	4	5	NA
Being lazy and unmotivated	1	2	3	4	5	NA
Limited parental support for education	1	2	3	4	5	NA
Feeling physically unsafe at school	1	2	3	4	5	NA
Feeling emotionally unsafe at school	1	2	3	4	5	NA
Believing no one at school cares if they drop out	1	2	3	4	5	NA
Believing adults at school want them to drop out	1	2	3	4	5	NA

If there are factors that you believe contribute to dropout and that are not identified above, please list them below:

Survey adapted from Knesting-Lund, Reese, & Boody (2013). Teachers' perceptions of high school dropout and their role in dropout prevention: An initial investigation. *Journal of Studies in Education*, 3(4), 57-70.

Appendix D: Liberty University IRB Approval

LIBERTY UNIVERSITY

INSTITUTIONAL REVIEW BOARD

October 31, 2016

Christopher Kennedy

IRB Exemption 2664.103116: An Analysis of Perceptions of Dropout Risk Factors and Interventions by Middle School and High School Teachers in a Southeastern School District

Dear Christopher Kennedy,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
 - (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

Administrative Chair of Institutional Research
The Graduate School

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Appendix E: School District Research Approval

JOHNSTON COUNTY SCHOOLS

(919) 934-6031

P. O. Box 1336, Smithfield, NC 27577
Dr. D. Ross Renfrow, Superintendent

(919) 934-6035 FAX

May 10, 2016

Dear Mr. Kennedy,

Your request to conduct dissertation research using teachers in Johnston County Schools has been received and approved. You may begin conducting your research whenever you receive clearance from Liberty University.

I wish you the best of luck in your research endeavor. If Central Services could be of assistance to you, please let us know.

Sincerely,

Superintendent