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High School Graduation Coaches: Supporting At-Risk High School Students

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by

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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

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Abstract

This study investigated the effectiveness of a new dropout prevention program, Project WALK, which was launched at a low-income high school in Missouri during the 2012–2013 school year. After examining alarming dropout statistics, Washington High School chose 40 students to participate in a new program, Project WALK, which was designed to use graduation coaches to improve at-risk students' performance. The program's six graduation coaches formed relationships with at-risk students, monitored student progress, and consistently communicated with parents, teachers, and school administrators about the at-risk students. The researcher, an administrator at the school, gathered quantitative data to measure the effects of the intervention and qualitative data to measure the perceptions of the students who participated. The quantitative data collected for this study enabled the researcher to assess whether the graduation coach had an effect on each student's attendance, discipline, and number of credits earned during the time of the intervention compared to other years the student was in high school. The researcher considered secondary data in order to compare students' performances before and after the intervention and thus to test for a correlation between a student's being paired with a graduation coach and student outcomes such as attendance, discipline, and number of credits earned.

In addition to quantitative methods, the use of qualitative methods enabled the researcher to describe and analyze student perceptions of their experiences. Little is known about the perceived experiences of individual students who are considered to be at risk of dropping out of high school. Because qualitative data on this subject have been lacking, the qualitative component of the present study could lend greater insight into the

effectiveness of interventions in students' lives. This study looked at 30 males, 10 females, 20 general education students, and 20 special education students. The results of this study indicated that the graduation coaches were beneficial in preventing dropouts, which suggests that the strategy of using graduation coaches is a promising one for serving at-risk students. These findings inform the work of educational specialists, practitioners, and school systems personnel who design interventions to help reduce the dropout rates in schools.

Table of Contents

List of Tables

List of Figures

Chapter One: Introduction

Dropping out of school is a process that commences well before high school. Students exhibit identifiable warning signs at least one to three years before they drop out (Bridgeland, Dilulio, & Morrison, 2006). Swanson and Lloyd (2013) stated, "At the beginning of the last decade public school students were finishing a high school diploma with the rate of two-thirds" (p. 22). The dropout rate remained high even though national leaders, schools, communities, and families have come together to take steps to address the dropout epidemic. In education, dropping out may be viewed as the final adverse academic outcome in a long process of school disengagement. According to Balfanz (2010), "Every 26 seconds, another student gives up on school, resulting in more than one million American dropouts a year or 7,000 every day" (p. 3).

Despite the large amount of resources available to schools, the nation has made virtually no progress in graduating more students from high school and preparing students for college, the workforce, and a productive future. The world's complexity and increasing demands of the 21st century workplace students must graduate from high school ready for college or career ready. The U.S. economy cannot afford to let nearly one-third of students drop out of high school.

The Big Picture: High School Dropouts

In the United States, on average, approximately 33% of high school students drop out of high school before graduation year (Bridgeland et al., 2006). Chapman, Laird and KewalRamini (2011) defined dropping out as "leaving school without a high school diploma or equivalent credentials such as a General Educational Development (GED) certificate as defined by the National Center for Education Statistics" (p. 3). Typically,

these students have been identified as at-risk at some point in time during their school years with strategies and interventions implemented to try and assist them in their struggle with academic, social, emotional and environmental challenges of school.

In an ever-changing, competitive global economy, Americans cannot afford the costs of uneducated citizens. The statistics are alarming as high school dropouts are destined for a difficult life. According to Bridgeland et al. (2006), students who drop out of high school:

> are far more likely than their peers to be unemployed, live in poverty, experience chronic poor health, depend upon social services, and go to jail. Four out of every ten young adult dropouts receive some type of government assistance. (p. xxii)

Receiving a high school diploma is what most adolescent students work to achieve at the end of four years of secondary education. Some students use this time to prepare for postsecondary education or entry-level employment. Graduation is an accomplishment for students, and schools take pride in high graduation rates. Faced with severe budget constraints school systems are experiencing, increasing poverty rates of families, and continuous increasing numbers of students who are considered at-risk of not graduating from high school. High schools face many roadblocks along the path to graduating all students.

It has been known for many years that young people who do not complete high school face many more problems later in life than do people who graduate (Schwartz 1995). Dropouts are more liable to be unemployed, be on public assistance, and be single parents. Each year more education reform is put into action to address the dropout issue.

Balfanz (2010) stated, “One-third of all public high school students and one-half of minority students do not graduate with their class every year” (p. 42).

There is not one factor that determines why a student drops out of high school, but certain factors can be contributors. Students who drop out of high school have identifiable characteristics that can be used as an early warning sign to help at-risk students. Some strongly predictive factors of dropping out of school: grade retention, poor academic performance, switches schools during high school, high absenteeism, and the student feeling that no adult in the school cares about his or her welfare. Next the following specific issues will be described: socioeconomic background, disabilities, race-ethnicity, academic factors, and absenteeism.

Socioeconomic Status

Rumberger (2013) stated socioeconomic status (SES) has a negative effect on high school completion (p. 1). Several factors influence SES such as family income, parental education level, parental occupation, and social status in the community. Rumberger (2013) stated it is commonly conceptualized as the social standing or class of an individual or group (p. 1). Children from low SES households and communities develop academic skills more slowly compared to children for higher SES groups (Morgan, Farkas, Hillemier & Maczuga, 2009). Bertrand (1962) found that when functions of family and school structures contradict each other, students aim to fit in with their family social structure (p. 230). Lower SES can increase the probability of dropping out of high school. Bertrand found that low SES is directly correlated and parents’ education is inversely correlated with student dropouts (p. 231).

Learning Disabilities

The dropout rate for students with disabilities is approximately twice that of general education students (Blackorby & Wagner, 1996). Increased concerns about the dropout problem are now emerging because of state and local education agency experiences with high-stakes accountability in the context of standards-based reform. In education, the term standards-based refers to system of instruction, assessment, grading, and academic reporting that are based on students demonstrating understanding or mastery of the knowledge and skills they are expected to learn as they progress through their education. Under the Title I requirements of the No Child Left Behind Act, a school reform passed in 2002, schools are identified as needing improvement if their overall performance does not increase on a yearly basis or if any of a number of subgroups does not make adequate yearly progress (AYP). Students with learning disabilities comprise one of these subgroups to be included in accountability. The Learning Disabilities Association of America (2014) reported:

> Learning disabilities is a neurological condition that interferes with an individual's ability to store, process, or produce information. Learning disabilities can affect one's ability to read, write, speak, spell, compute math, reason and also affect an individual's attention, memory, coordination, social skills, and emotional maturity. (p. 1)

Increasingly, high-stakes tests have significant consequences for students, determining whether they are promoted from one grade to the next, or graduate from high school with a standard diploma (Thurlow, Sinclair, & Johnson, 2002).

Dunn, Chambers, and Rabren (2004) found that 58% of the students with learning disabilities and only 37% of the students with mental retardation were likely to drop out of high school (p. 315). These findings showed that learning disabilities have an effect on high school completion. Learning disabilities create extra barriers for students to overcome, and therefore increase the likeliness of them dropping out of high school.

Race-Ethnicity

Dropout rates vary widely between among cultural, ethnic, and linguistic groups. Historically speaking, groups that are culturally, ethnically, or linguistically distinct have always had higher dropout rates than Euro-Americans; these distinctive groups, however, have made greater relative improvements in the last two decades (Rumberger, 1995). Hispanics and African Americans are at greater risk of dropping out than Whites, with Hispanics at a greater risk of dropping out than either White or African-American students. Researchers estimate that as few as 50% of African-American, American Indian, and Hispanic students graduate from high school in some cities (Bridgeland et al., 2006).

Absenteeism

Students who have poor attendance for reasons other than illness are also more likely to drop out than the average. Clearly, students who miss school fall behind their peers in the classroom. This in turn leads to low self-esteem and increases the likelihood that at-risk students will drop out of school. The U.S. Department of Education (2002) reported, “Forty-five percent of teachers and 42 percent of principals cited absenteeism, one of the early warning signs, as a key factor in most cases of high school dropout” (p. 5).

Academic Factors

One of the most widely studied predictors of high school graduation is academic achievement. Two indicators of academic achievement, test scores and grades, have been shown to predict whether students drop out or graduate from high school. In order to increase academic achievement, schools must prepare students for post-secondary education and employment and a highly competitive global economy, and must accommodate the at-risk student and increase graduation rates. Educators are finding that adolescents of the 21st century are difficult to engage in academics. The National Academies Press (2003) reported:

> A national survey of more than 2,000 youth in grades 7 through 12 found that about forty percent of the students worked a median of 3 hours on an average school day, and spent 2 hours "hanging with friends." The median numbers of hours worked by black students was 4 hours. (p. 13)

The emphasis on standardized testing is forcing educators to learn strategies quickly to engage students in learning as well as improving their academic progress to meet AYP. The National Academies Press (2003) confirmed:

> In the past half-century, the emphasis on academic standards of the 1950s gave way to a concern for equity in the 1960s, and then back to high standards and basic academic skills in the early and mid-1980s. Since then, there has been some wavering, but the dominant policy emphasis that has emerged at the start of the 21st century has been to hold all students accountable for achieving high educational standards, focusing especially on reading and math. (p. 16)

In addition to improving academic progress, educators are taxed with the duty and responsibility of creating functional society members who will be ready for entry-level employment with highly-development technological skills, or post-secondary education with necessary background knowledge, and who will be able to contribute to the good of the whole community.

High school administrators and staff are becoming more aware of the changing needs of their populations. Adapting to the various needs that are facing educators is necessary, but it is difficult due to budget shortfalls and increases in student need. As students fall behind, educators can become more creative in meeting the needs of the students. Tierney (2006) stated the stakes are high, and the future of the workforce depends on well-educated students ready to enter the workforce or post-secondary education (p. 3).

The general public and school officials are alarmed by the high dropout rates and by the low academic achievement of many high school students. National research indicates academic factors are clearly related to dropping out. Students who receive poor grades, who repeat a grade, or who are over-age for their class are more likely to drop out. The research of Bridgeland et al. (2009) showed that 62% of teachers and 60% of principals stated students being academically unprepared for high school was a factor in at least some dropout cases (p. 3).

Preparing Students for the World Beyond High School

At-risk students need special assistance in preparing for postsecondary education and for better-paying jobs. In addition to improving academic progress, educators are taxed with the duties and responsibilities of creating functional society members who will

be ready for entry-level employment with highly developed technological skills, or post-secondary education with necessary background knowledge, and who will be able to contribute to the good of the whole community.

Occupational aspirations play a role in the perceived economic opportunities available to young people. Dunn et al. (2004) showed that students claimed they were more likely to stay in school if they believed that they were being effectively prepared for their future career plans. Carnevale and Desrocher's (2003) research indicated that more than two-thirds of new jobs created between 2000 and 2010 required a postsecondary education, with the fastest-growing, best-paying jobs requiring the most education (p. 22). Earning a high school diploma allows young adults to be more competitive in the entry-level employment world and puts them one step closer to admittance into a technical college or university.

Dropping out of high school has a lifelong, devastating impact on a person's future. It is costing the United States billions of dollars every year and diminishing the productivity and happiness of millions of young people. Dee and Jacob from the Center for Labor Market Studies (2006) reported, "High school dropouts earn $9,200 less per year on average than those who graduate. Over the course of their lifetimes, they will earn an average of $375,000 less than high school graduates, and roughly $1 million less than college graduates" (p. 2). Bridgeland et al., (2006) described this as a silent epidemic, stating that the chances are high that a person who drops out will be more likely to live in poverty than a high school graduate.

In recent years, high school completion has become a basic prerequisite for many entry-level jobs, as well as higher education, so the economic consequences of leaving

high school without a diploma are severe. Dropping out causes other secondary, indirect problems; public assistance, single parenthood, prisons. High school dropouts are more likely to receive public assistance than high school graduates who do not go on to college. The individual stresses and frustrations associated with dropping out have social implications as well: dropouts make up a disproportionate percentage of the nation's prisons and death row inmates. Dillon (2009) pointed out that 82% of America's prisoners are high school dropouts (p. 1).

The dropout crisis is a really significant problem that affects the whole community. Rumberger (2011) reported that, "The Obama administration has committed $3.5 billion to transform the nation's lowest-performing schools, including 2,000 so called 'dropout factories' and another $50 billion to invest in innovative dropout-prevention and recovery strategies" (p. 24). Schools and communities can work together to find a solution to the dropout issue.

Purpose of the Study

The purpose of this mixed-methods study was to examine the perceptions of administrators, graduation coaches, and students on the intervention technique of assigning graduation coaches to mentor at-risk high school students. In 2011, the graduation rate at Washington High School (a pseudonym) was 70.3%, just 2% shy of the national 2011 graduation rate (Sellers, 2011). Washington High School had 89 students drop out of high school in 2011 and 131 in 2010. Administrators at Washington High School knew they needed to implement an intervention to decrease the number of students who were dropping out.

The researcher was seeking to determine whether graduation coaches were an effective intervention for students who were at risk of not earning high school diplomas. The researcher considered secondary data in order to compare students' performances before and after the intervention and thus to test for a correlation between a student being paired with a graduation coach and student outcomes such as attendance, discipline, and number of credits earned.

This researcher analyzed both quantitative and qualitative data. The quantitative data collected for this study enabled the researcher to assess whether the graduation coach had an effect on each student's attendance, discipline, and number of credits earned during the time of the intervention compared to other years the student was in high school. In addition to quantitative methods, the use of qualitative methods enabled the researcher to describe and analyze student perceptions of their experiences. Little is known about the perceived experiences of individual students who are considered to be at risk of dropping out of high school. Because qualitative data on this subject have been lacking, the qualitative component of the present study lent greater insight into the effectiveness of interventions in students' lives.

In the age of higher accountability, school administrators and teachers need to develop an understanding of the reasons students struggle in the high school setting and what programs or particular aspects of programs provide support for at-risk students. The transition from middle school to high school can be one of the most emotionally and academically difficult times for a young adolescent student. Reents (2002) determined "along with the self-esteem issues, developmental changes and environmental shakeups faced by the young adolescents, school districts risk watching their 9th graders fall

through the cracks without proper transitional programs place" (p. 14). A poor start to the high school years as freshmen can increase students' risk of losing motivation, failing, and dropping out of school.

It is not uncommon to see students' grades and attendance decline when they enter high school. Chapman and Sawyer (2001) reported that "three out of four students reported that ninth grade was academically much more difficult, and one out of five reported increased feelings of isolation during ninth grade" (p. 235). Letrello and Miles (2003) stated, "The change can overwhelm the coping skills of some students, lower self-steam, and decrease motivation to learn" (p. 212). In addition to the academic challenges, students are also facing significant cognitive, physical, social, and emotional growth. Emotional instability is not uncommon for the freshman student. Letrello and Miles stated, "Dealing with physical changes, striving for independence from family, and acquiring new methods of intellectual functioning are all emotional issues for some adolescents" (p. 212). All these challenges cause considerable upheaval for the adolescent student and complicate the high school experience. Parents, teachers, and administrators are often puzzled about how to motivate and assist these students. Far too often, administrators and teachers are able to identify that the student is struggling academically, is not completing his or her work, failing his or her classes or may be choosing the wrong group of friends; however, they do not know the reasons why this is happening to the students.

High school administrators and staff are becoming more and more aware of the changing needs of their populations. Adapting to the various needs that are facing educators is necessary, but difficult due to budget shortfalls and an increase in student

need. Students are falling behind and educators must become more creative in meeting the needs of the students. The stakes are high, and the future of the workforce depends on well-educated students ready to enter the workforce or post-secondary education.

Rationale

In most cases, the students who dropped out of school had been identified as at-risk during their high school years. According to Hammond, Linton, Smink, & Drew (2007), "There is no single risk factor that can be used to accurately predict who is at-risk of dropping out" (p. 1). Given the uncertainty of which risk factors are most significant, many educators and policymakers debate the questions of why students drop out of school and which interventions are the best means of helping students to be successful in the pursuit of their high school diplomas.

Many at-risk students tend to experience academic and behavioral problems such as dropping out of school, low test scores, increased grade retention, and discipline problems in school (Alivernini and Lucidi, 2011). Given such environmental experiences, at-risk adolescents tend to be less likely to graduate and more likely to leave school without the basic skills that are necessary for succeeding in life and overcoming everyday life adjustments (Hickman & Garvey, 2006). The use of graduation coaches might be a viable strategy for improving the educational and social outcomes of high school students at risk of not graduating. However, researchers have not yet presented solid evidence that graduation coaches are effective for at-risk students.

Because of the current dropout rate at Washington High School, the Missouri Department of Elementary and Secondary Education (MODESE) contacted the school and requested that it participate in the development of a program for dropout prevention.

Washington High agreed to partner with MODESE, and the department gave the necessary support and training for the planning of their dropout intervention. The dropout trend caused the administration and staff at Washington High to begin the conversation about interventions to put in place to address the trend. In the 2011-2012 school year, 108 students dropped out. A team of teachers and administrators met in the summer of 2012 and created Project WALK (Washington Alliance for Learning and Knowledge).

Project WALK focused on helping students to increase the number of credits earned and attendance rates while decreasing the number of office referrals. The program administrators chose five graduation coaches to work with the 40 at-risk students who were identified to participate in the intervention. Demographically, the group of students who received intervention, for the 2012-2013 school year, consisted of 26 African Americans, 12 Whites, and two Hispanics students. The group included 30 males and 10 females; 20 students were general education students, while 20 were special education students.

Table 1.

Demographics of Student Participants of Project WALK

	Female	Male	Special Education Female	Special Education Male	Regular Education Female	Regular Education Male
Black	5	21	2	10	3	6
Hispanic	0	2	0	0	0	2
White	5	7	2	6	3	6

The researcher believed it to be important to understand perspectives administrators, teachers, and students held concerning the strategies that the graduation coaches were using to assist at-risk students. Through the study, the investigator sought to discover which of the graduation coaches' strategies were effective and which were not effective.

Research Question and Hypotheses

The qualitative component of this study was guided by one research question. The research question was as follows: "Did providing at-risk high school students with a graduation coach change their perceptions about graduating high school?" The quantitative component of this study was structured by three hypotheses.

Hypothesis 1

$H1_0$: The attendance rate means are not significantly different from one another.

H1: The attendance rate means are significantly different from one another.

Hypothesis 2

$H2_0$: The discipline referral means are not significantly different from one another.

H2: The discipline referral means are significantly different from one another.

Hypothesis 3

$H3_0$: The means of credit earned are not significantly different from one another.

H3: The means of credit earned are significantly different from one another.

Limitations

There are certain limitations to this study, including the possible unwillingness of the students to answer the questions openly and honestly, and the potential that it could

be difficult to identify common themes between the information from administrators, staff, and students through the interviews. The researcher structured the interviews so that the questions were common, and it was through those questions that common answers or themes developed.

There was also the limitation of using only one school in the Midwest to collect data, meaning the results are less generalizable than if multiple research sites had been investigated throughout the United States. Using only one school limited the number of interventions that were researched. This study also lacked a comparison group. All students who participated in the study were considered at-risk, and the sample size was small.

Definition of Terms

At-Risk Students. Those who exhibit academic, behavioral, or attitudinal problems that culminate in the student dropping out of school (Janosz, LeBlanc, Boulerice, & Tremblay, 1997).

Diploma. Document indicating successful completion of high school (Lehr, Clapper, & Thurlow, 2005).

Dropout. A student who leaves school for any reason before graduation or the completion of a program of study (Owen, Rosch, Muschkin, Alexander, & Wyant, 2008).

Grade Retention. The term "retention" in regards to school means repeating an academic year of school. Retention in school is also called “grade retention,” being “held back,” or “repeating a grade” (McKay, 2001).

Graduation Coach. An educator whose primary responsibility is to identify at-risk students, to help them succeed in school by keeping them on track academically, and to

discourage them from dropping out. The goals of the graduation coach are to mentor, query, coach, and inspire students to find academic success (Georgia Graduation Coach Incentive, 2008). In Project WALK (defined below), all graduation coaches were also employed as teachers in the school district.

High-Stakes Testing. Testing that has significant consequences. In the past, the term was generally applied to testing that had significant consequences for the students, such as earning a high school diploma or being promoted from one grade to the next. Recently, the term has also been applied to system-level testing, where consequences are leveled on schools and districts that do not meet their targets for adequate yearly progress (Lehr et al., 2005).

Learning Disabilities. A learning disability is a neurological condition that interferes with an individual's ability to store, process, or produce information. Learning disabilities can affect one's ability to read, write, speak, spell, compute math, reason and also affect an individual's attention, memory, coordination, social skills and emotional maturity (Learning Disabilities Association of America, 2014).

No Child Left Behind Act (NCLB). Reauthorization of the Elementary and Secondary Education Act passed by the legislature in 2001 and signed by President George W. Bush in 2002. Known as No Child Left Behind, the law was groundbreaking in its requirement of disaggregated accountability and its inclusion of graduation rates with fairly strict definitions in its accountability system (Lehr et al., 2005).

Project WALK. Project WALK (Washington Alliance for Learning and Knowledge) was established at Washington High School in the 2012-2013 school year. Administrators identified at-risk second- or third-year students based on attendance,

credits, age, grade point average, and discipline. Any student who had a combination of two or more of the characteristics of at-risk behavior for dropping out was assigned a graduation coach, with whom the student met every other day for 90 minutes.

Race to the Top. A contest created by the United States Department of Education to spur innovation and reforms at the state and local district levels in K-12 education. The contest, announced by President Barack Obama and Secretary of Education Arne Duncan on July 24, 2009, was funded by the ED Recovery Act as part of the American Recovery and Reinvestment Act of 2009. States were awarded points for satisfying certain educational polices such as performance-based standards for teachers and principals, complying with Common Core State Standards, lifting caps on charter schools, turning around the lowest-performing schools, and building data systems (U.S. Department of Education, 2002).

Resilience. A characteristic of vulnerable children or youth who become successful as adults despite the presence of contextual factors or characteristics that places them at risk. Often, what provides protection against later dysfunction is a combination of the characteristics of the child, the presence of an effective caregiver, and the social context (Lehr et al., 2005).

Summary

The purpose of this mixed-methods study was to investigate an intervention with at-risk high school students using both quantitative and qualitative approaches. In the quantitative component of the study, the researcher investigated the correlation of students' attendance, discipline, and number of credits earned in work with graduation coaches. In the qualitative component of this study, the researcher investigated the

perceptions of students on their journey to obtaining a high school diploma. The researcher sought to find through the interview process the students' perspectives on their graduation coaches and their thought processes while pursuing graduation. The researcher also sought to understand the resources that might enable high school faculty and staff to help students achieve success despite being labeled at-risk. This study specifically explored strategies implemented at Washington High School to assist students who were struggling with the completion of the coursework necessary to obtain their high school diplomas. The results will be used to help the researcher understand whether the availability of graduation coaches to students can increase graduation rates over time.

It is important to understand, through the perspectives of both students and staff, what strategies are being used to assist students who are at-risk as well as why these strategies are being implemented. Far too often, administrators and teachers are able to identify the students who are struggling academically, not completing work, failing classes, or choosing the wrong group of friends; these leaders do not know why this is happening to the students. Chapman and Sawyer (2001) reported "three out of four students reported that ninth grade was academically much more difficult, and one out of five reported increased feelings of isolation during ninth grade" (p. 235). Letrello and Miles (2003) expanded on this idea by stating, "Dealing with physical changes, striving for independence from family, and acquiring new methods of intellectual functioning are all emotional issues for emerging adolescents" (p. 212). Therefore, to do research that includes input from administration, staff, and students at a high school showing progress and success with its at-risk students will help the researcher understand the strategies,

implementation process, and effects that these strategies have on the success of the students who would most likely not graduate otherwise.

The literature review in Chapter Two starts with providing a brief history of the development and current status of the education system in the United States. Chapter Two then describes the adolescent development stages and school intervention programs in which have been successful with at-risk students. Finally, Chapter Two will close with a discussion of the five challenges facing high school reform.

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Chapter Two: The Literature Review

The purpose of this study was to investigate the effectiveness of a new dropout prevention program, Project WALK, which was launched at a high school in Missouri during the 2012-2013 school year. After looking at dropout statistics, Washington High School (a pseudonym) chose 40 students to participate in a new program, Project WALK, which was designed to improve at-risk students' performance through the use of graduation coaches. The program's six graduation coaches formed relationships with at-risk students, monitored student progress, and consistently communicated with parents, teachers, and school administrators about the at-risk students. The researcher, an administrator at the school, gathered quantitative data to measure the effects of the intervention and qualitative data to measure the perceptions of the students who participated. Both male and female students, and both general and special education students, participated in the intervention. The results of this study indicated that the graduation coaches were beneficial in preventing dropouts, which suggested that the strategy of using graduation coaches is a promising one for serving at-risk students. The present chapter will set the context for this study by describing the relevant work by previous researchers.

This literature review begins with a brief history of the secondary education system in early America and the birth of the traditional high school in the United States in the late 19th century. Then, the chapter provides an overview of past school reform efforts and the factors that have been found to be necessary to a successful reform. This section introduces the five challenges that are faced when implementing high school reforms. Perhaps the most important characteristic of a successful high school reform is

that it is based on a proper understanding of adolescent development; therefore, the next section of the literature review will discuss research on adolescent cognitive, physical, psychosocial/emotional, and moral development. Next, the chapter will highlight examples of successful intervention programs, such as Coca-Cola Valued Youth Program, Check & Connect, Career Academies, Career Academy, and Achievement for Latinos through Academic Success. Finally, the chapter returns to the concept of the five challenges associated with high school reform, explaining each of the challenges in greater detail.

Historical Context

Understanding the current system of American high school education requires first understanding the history of the system. The current system is one that has been profoundly shaped by the No Child Left behind Act. The passing of this act set the standard that all students must achieve proficiency in all the core academic areas, even students of low SES and students with learning disabilities. This educational reform was driven by a troubling trend of students scoring low on standardized test and falling behind students in other countries, especially in mathematics and reading. According to the United States Department of Education (2002),

> As teachers, principals, local and state leaders work to implement No Child Left Behind, it is worth reflecting on how the American high school system has evolved, the assumptions upon which it rests, and the serious policy debates that should inform its future. (p. 1)

Elite secondary education in early America. Secondary education in early America was reserved mainly for the privileged students in society. Elementary

education was considered essential for students; however, a high school education was not a priority. Public high schools would not be developed until about 200 years after the opening of the first public school, the Boston Latin Grammar School in 1821. This high school, which was in Boston and followed the English Classical School model, was used to prepare young men for college at Harvard and for service in the church or government. The curriculum consisted of composition, declamation, mathematics, history, civics, logic, surveying, navigation and moral and political philosophy. As time progressed, more public high schools began to open. Their purpose was to educate young men and prepare them for college. Even though more schools were opening, the enrollments in the schools remained low (USDOE, 2002).

Around 1870, it was determined that there were nearly 500 public high schools in the United States, with 50,000 students attending (USDOE, 2002). These public high schools were emerging from private academies. According to USDOE (2002), "It was in this era that enrollment first opened to girls—with many young women being trained in 'normal' classes to become teachers-and working class youth entering high school to learn skilled trades" (p. 1). In 1874, the Michigan State Supreme Court ruled that taxes could be levied to support public elementary and high schools (USDOE, 2002). "Thereafter, with the Industrial Revolution and the beginning of mass urbanization, large cities began to construct high schools" ((USDOE, 2002, p. 1).

As the high schools of the late 19th century were being created, the curriculum still contained college preparatory courses, but increased their offerings of vocational training programs. The high schools emphasizing vocational training were training students for the skilled jobs now available in factories and agricultural enterprises. The

academic core courses became a part of the vocational training rather than the emphasis of the curriculum (USDOE, 2002).

Growing popularity of secondary education. The First National Council of Education was concerned with the quality of high school education. The council, which was known as the Committee of Ten, convened in 1892. It was comprised of Ivy League college professors whose goal was to map coursework that they would consider to be necessary for students to prepare for college. This committee developed a list of core subjects: English, Foreign Languages, Natural History, Physical Science, Geography, History, Civil Government, and Political Economy (USDOE, 2002). The First National Council was questioned about their curriculum and whether it was suitable to prepare students for life and work. The Council responded that a liberal arts curriculum was suitable for all students in all life paths and that it trained the mind. The Council stated, "There would be no distinction between those students preparing for college and those who were preparing for life" ((USDOE, 2002, p. 2).

The findings of the Committee of Ten did not prevail for long. Through the first two decades of the 20th century, the United States population grew considerably with waves of poor and not formally educated immigrants. It appeared the new population was not receiving the type of education necessary for its needs. The thought was that most students would go to work in unskilled or semi-skilled positions after high school. The greatest educational need at that time was for students to be acculturated to American society (USDOE, 2002).

In 1918, the National Education Association established a group called the Commission on the Reorganization of Secondary Education. This commission issued

The Cardinal Principles of Secondary Education (USDOE, 2002). The commission stated, "The primary purposes of high school were health, citizenship, worthy home membership, and secondarily, command of fundamental processes" ((USDOE, 2002, p. 2). This document built the foundation for the modern American high school education based on life skills and general education.

Birth of the traditional high school. As these changes in the American school continued, enrollments continued to rise. Child labor laws and truancy laws brought even more students into high school. The curriculum was still prepared to provide students with skills for technical trades, as well as academic subjects to prepare students for college. In 1917, Congress enacted the first vocational legislation. Even though college preparatory schools still existed for the elite, the Cardinal Principles vision dominated most schools (USDOE, 2002).

The United States Office of Education held a conference in 1945 in which Charles Prosser offered his beliefs on public high school education. These beliefs became known as the Prosser Resolution:

> It is the belief of this conference that . . . the vocational school of a community will be better able to prepare 20 percent of its youth of secondary school age for entrance upon desirable skilled occupations; and that high school will continue to prepare 20 percent of its students for entrance to college. We do not believe that the remaining 60 percent of our youth of secondary school age will receive the life adjustment training they need and to which they are entitled as American citizens unless and until the administrators of public education with the assistance of the vocational education leaders formulate

a similar program for this group. (p. 3)

In the report From There to Here: The Road to Reform of High Schools, issued by the United States Department of Education (2002) reported, “The American high school produced a standardized product, with a body made up of a mix of American and immigrant students, with all the cultural institutions of Friday night football, the senior prom, and loose academic standards” (p. 3). Compared to other countries, American students were well prepared through World War II, when other countries began to instill secondary education for their students.

The report, From There to Here: The Road to Reform of High Schools, issued by the United States Department of Education (2002) indicated between the 1950s and 1960s, Americans found themselves falling behind other countries such as the Soviet Union, Germany, and Japan in areas of mathematics and science. This became very apparent with the Soviet launch of Sputnik in 1957. As a result, American policymakers went back to the drawing board and responded by adding more courses to high school curriculum and building even larger facilities. These facilities housed science labs, football fields, and band rooms. However, the process did not consider all students. These considerations began focusing again on the elite students who made up a low percentage of the student population. Policymakers did not consider the academic capabilities of most young American high school students. The belief was still that students should be sorted into academic, vocational, or general tracks depending on test scores and the judgment of guidance counselors. By these standards, most students were determined not to be college material. The bigger the facilities of American high schools became, the less they provided for the majority of the population of students.

In the 1970s and 1980s as the economy faced more competition from overseas countries, the American high school students' academic progress, or lack thereof, became very apparent. In 1983, the National Commission on Excellence in Education appointed by Terrell Bell issued a report entitled, "A Nation at Risk." This report prompted policymakers to discuss and to put into place higher academic standards for all American students. The USDOE (2002) report expressed "an alarm [that] the rise of global trade, the [status of the] United States as the leading world power, and the dawn of the information age, were not being accompanied by complementary changes in the school" (p. 4). This report referred back to the report from the Committee of Ten that stressed the importance of access for all students to a rigorous academic curriculum. The report prompted many states to increase the number of academic credits required for graduation, to create curriculum based examinations, and even to require examinations that were linked to high school graduation.

Since "A Nation at Risk" was published, progress has been slow. According to From There to Here: The Road to Reform of High Schools, issued by the United States Department of Education (2002):

> After decades of reform, it is true that 60 percent of high school students, including more occupational/technical education students, now complete the number of academic credits recommended by the National Commission on Excellence in Education as necessary for postsecondary education or training. (p. 4)

However, during the past 20 years, test scores have not risen, and high school dropout rates continue to be an issue. One main issue is that the economy is still changing, and a higher academic standard must be met in order for students to compete globally.

The 1893 report by the Committee of Ten, which called for a rigorous academic curriculum for all students, has prompted numerous discussions about whether American high schools should be institutions of college preparatory work for the masses, or provide a curriculum where students and parents are making the best choices that meet students' individual needs. Academic performance was still a concern for high school students with the debate in whether or not the comprehensive high schools developed through this reform are causing the declining quality of secondary education.

The Committee of Ten's (1893) recommendation of a general course of study for all students, which would purportedly prepare all students for post-secondary education, elicited concern and criticism that education would go back to catering to an elite group of students. Over time, the number of students enrolled in public high schools increased, including the immigrant population. In 1918, the increased diversity prompted an investigation of the recommendation of the Committee of Ten by the Commission on the Reorganization of Secondary Education of 1918. The commission on the Reorganization of Secondary Education presented a report, "Cardinal Principles of Secondary Education." As Mirel (2006) explained "since these new students lacked the intellectual ability, aspirations, and financial means to attend college, it was counterproductive to demand that they follow a college-preparatory program" (p. 15). The belief behind this report was that if schools were designed to make all students learn the same materials in the same way, a large portion of the high school population would be at risk of becoming

discouraged and dropping out of school. Therefore, it was thought that an American high school system with differentiated curriculum would allow students some choices to follow programs that contained courses that were of interest to them and would help them meet their future career goals.

Overview of High School Reform Efforts

Due to the elevated high school dropout rates, low academic achievement among high school students, and the high numbers of high school graduates who are required to take remedial classes in college, educators and policymakers have experimented with approaches to high school reform. Recent examples of reform initiatives, which will be discussed in greater detail below, are the Coca-Cola Valued Youth Program, Check & Connect, Career Academies, and Achievement for Latinos through Academic Success.

According to Quint (2006), five critical challenges face high school reformers today: "(1) creating a personalized and orderly learning environment, (2) assisting students who enter high school with poor academic skills, (3) improving instructional content and practice, (4) preparing students for the world beyond high school, and (5) stimulating change in overstressed high schools" (p. iii). In order to address these challenges, high schools need to improve their structure to assist the students of the 21st century in feeling as though they are supported in their academic challenges. These challenges will be discussed in greater detail later in the chapter. Quint (2006) has maintained:

> Small learning communities and faculty advisory systems can increase students' feelings of connectedness to their teachers. Interaction with one another, extended class periods, special catch-up courses, high-quality curricula, training

> on these curricula, and efforts to create professional learning communities can improve student achievement. (p. iii)

In the midst of the No Child Left Behind Act, low achievement among high school students, and the growing competition between American high schoolers and students in other countries, high school reform efforts are a continuous conversation. In addition to reform efforts, school systems have been given more responsibilities since the beginning of the 20th century. Vollmer (2006), a former businessman and attorney, created a timeline to show the additional responsibilities given to educators over the past century. Vollmer (2006) argued:

> The moral imperative, teach all children to their highest level, which Americans have long promoted in concept but rarely pursued in fact, has finally become a practical necessity. We need all children to unfold their full potential; education is now the key ingredient for personal, community, and national success. (p. 1)

Vollmer (2006) continued by saying that, over time, politicians and business leaders have seen the educational system as a place to educate and to create functioning citizens. Over decades, the responsibilities of educators have drastically increased. From the 1900s to 1990s, the responsibilities added to school systems were numerous. Nutrition, immunization/health, business, art, and music education, special education, and inclusion are a few examples of the responsibilities added to the school systems.

Also adding to the responsibilities was high-stakes standardized testing. Vollmer (2006) contended:

> Americans in every community must come together to answer two essential questions: What do they want their children to know and be able to do when they

> graduate? And, how can schools and the entire community work together to ensure that all children reach the stated goals? (p. 1)

One more question educators need to address is, what will educators need to know and to understand about the student they are teaching in order to reach these goals? Earlier sections in this chapter discussed the history of high school reform and some of the most recent high school reform initiatives. For successful reform it is imperative to close the achievement gaps among groups of students. First, numerous studies show that high-quality preschool gives young children what they need to do well in school. Second, educators must listen to and understand the students whose achievement we are trying to raise. Third, school districts must attract and retain high-quality teachers in general, and especially in areas that are most challenging.

Educators need to understand the development issues students may have when the school districts are considering school reform. Comer (2005) contended that high school students are having so much difficulty because high school teachers are not prepared to deal with adolescent development in addition to the curriculum that they must present. Comer argued that teachers are inadequately prepared in the area of adolescent development and thus struggle to understand the behaviors of their students. Comer referred to the "fight-or-fight" reaction that is triggered by the brain's response to being threatened. Comer talks about behaviorists being able to understand the situation, but teachers and administrators struggle with this understanding. Comer (2005) wrote,

> And yet teachers and administrators, who routinely face these and many other brain-regulated behaviors that influence student development and learning, receive little in the way of preparation that would enable them to acquire and to

apply such knowledge. (p. 758)

Comer (2005) maintained that the high school reform indicatives that have been put into place would be more successful if adolescent development was considered and discussed during the implementation of curriculum, assessments, and instructional strategies. Comer (2005) stated:

> Insufficient attention has been paid to child and adolescent development. When these matters are addressed at all, the focus is often on the student with a problem behavior and not how to create a school culture that promotes good growth. (p. 758)

In the high school setting, educators often struggle with student behaviors in the classroom setting. Understanding the development of the student population in the modern high school would increase classroom instruction and better manage student behaviors. Earlier high school reform initiatives centered on the debate of whether to have a college preparatory or vocational education curriculum, providing integration instead of segregation, and the education of handicapped children.

When reviewing the more current high school reform initiatives, there seem to be few components that address adolescent development. The newer reforms are suggesting that the learning environment needs to be more orderly and personable. Personalization can be seen in a few different ways. Personalization can refer to the format and delivery of education. The Association for Career and Technical Education, (ACTE) (2006) has explained:

> When we think about the pace of change in information technologies, wireless communication, and global interconnectedness that have occurred since their

> birth, it is clear that today's high school students have vastly different and more complex life experiences that the young people of the 1930s, 1940s, and 1950s, for whom the prevailing high school model and designed. (p. 10)

Education is not a "one size fits all" garment. Each students is unique and has his and her own set of skills. A "cookie-cutter" education system will not meet the needs of all student, especially not the developmental needs.

Personalization can also be achieved by cultivating a certain kind of environment or culture in the school. In a positive, supportive school culture, the student believes he or she is a part of the school community, accepted, and cared for by the adults:

> The second aspect of personalization relates to knowing and being known as an individual within the school community. . . . For those adolescents who already have weak family community connections, the enormous schools become places of anonymity that encourage them to withdraw further into the shadows, and make them more vulnerable to the allure of negative peer reinforcements such as drugs, alcohol, sex, and crime. (Association for Career and Technical Education [ACTE], 2006, p. 12)

Many adolescents need to feel a connection either with other peers or adults in the school environment. Otherwise, students may choose to withdraw from their education completely, at the risk of becoming high school dropouts or relinquishing themselves to the consequences of the poor behavior, resulting in a dislike for the entire school environment.

The National Association of Secondary Principals (National Association of Secondary School Principals [NASSP], 2004) offered a third definition of personalization:

> Personalization: A learning process in which schools help students assess their own talents and aspirations, plan a pathway toward their own purposes, work cooperatively with others on challenging tasks, maintain a record of their explorations, and demonstrate their learning against clear standards in a wide variety of media all with the close support of adult mentors and guides. (p. 67)

A strategy for creating the personalized learning climate that has been spoken about when discussing the more recent high school reform is the creation of smaller learning communities within a large high school setting. This strategy was listed as an essential component in reviewing Coca-Cola Valued Youth Program, Check and Connect, Career Academies and Junior Reserve Achievement for Latinos reform initiatives. Quint (2006) talked about this strategy and its popularity:

> One strategy for creating more personalized learning environments that has gained prominence in recent years has been to change the structure of schools by downsizing large high schools into smaller units either new small schools that are independent entities or "academies" or "small learning communities" within the original school. (p. 21)

When students believe an adult in the school system is connecting with them and caring about their success, they are more likely to succeed. Some of the most positive experiences adolescents have will be in high schools, and teachers are the safe, secure adults in their lives. Tucked in the mission statements of many of high schools is the goal

of providing students with an appropriate education that will allow these students to become contributing members of society.

Another component of successful reform efforts is building schools with rich curricula and staff who seek to engage students by structuring the instruction around the needs of all students. Students who struggle with reading or mathematics areas, which includes American high school students, are falling behind. In order to ensure success of the students, the students must be engaged in the learning. Quint (2006) suggested schools can engage students in learning by doing some of the following: limit class sizes, develop personalized plans, engage students' families, and encourage teachers to convey a sense of caring for the students (p. 5).

There is much research to support the need for reform in high schools. However, the change is not happening at the rate that is necessary. According to NASSP (2004):

> The problem is that the calls for change most often come from external forces, sometimes well intentioned, often not attempting to trigger inspiration through a poetic turn of phrase, "just the facts" data, or an appeal to empathy or sense of guilt tied to tragedy or the plight of a student or group of students. Although any and all of these can trigger passion at any given moment, true motivation must come from within and must be sustained by more than a catchy sentiment of statement destined for Bartlett's book of quotations. (p. 131)

Many schools are in the process of initiating change in their curriculum, assessment and instructional strategies. However, a leader cannot just try to implement a program and expect the teaching staff to implement the program and improve student achievement. In order to improve student achievement in high schools, reform initiatives are needed as

well as education on the development of adolescents. Change in the curriculum, assessment, and instructional strategies are not enough when looking a high school reform. Teachers need to be made aware of adolescent development especially the cognitive changes that an adolescent experiences. In order to educate, teachers must first understand the thoughts and feeling affecting students. Comer (2005) concluded, "All educators need to use the principles of child and adolescent development to create positive interactions between students and school staff members" (p. 763).

There are many high school reform initiatives which are based on the same premises: personalize the learning environment for the adolescent, have teacher advisers who show that they really care and are concerned about the adolescent's achievement, assist students who need remediation in a particular subject area, have coursework that allows students to focus on an area of interest and encourage career selection and post-secondary education.

Importance of understanding adolescent development. In the researcher's opinion, before No Child Left Behind legislation and the issues of school districts struggling with budget shortfalls, reform efforts were more generalized and rarely were seen as continuous improvement initiatives. Now, many school districts, under the gun to make adequate yearly progress and facing declining enrollments and budge issues, are trying to implement instructional, curriculum and assessment reform with fewer teachers, fewer instructional leaders, and higher student to teacher ratios. School climates are beginning to deteriorate with the fate of the students hanging in the balance. Teachers are becoming frustrated with the high class numbers, pressure to do more with less and not enough time to explore the developmental issues of adolescent learners. It seems the

only way for progress to be made with high school reform initiatives is to provide instructors with a better understanding of the complicated world of adolescent development.

Furthermore, in the researcher's opinion high school reform initiatives, which take into consideration some of the aspects of adolescent development, have to be implanted in schools through a gradual change process. Staff development on adolescent development needs to be included to assist the teachers to understand the cognitive, physical, psychosocial/emotional, and moral/character development of the student. In addition to being educated in instructional strategies, teachers need to understand adolescent brain development and stages of development while in their classes. It is often perceived by many high school teachers that the students "do not care" or are "lazy," and disinterested in school, but becoming educated in adolescent development is a crucial component in understanding the adolescent and changing these perceptions of our high school populations. Developing the understanding will go a long way towards addressing our most challenging and costly academic, behavioral and economic problems.

Understanding adolescent development will bring educators to the forefront of the many issues surrounding high school reform. These trends will have implications for schools, school systems, universities, colleges, communities and institutions. Students will need to be prepared to make smooth transitions from student life to adult life through the education they receive. Educators need to provide an education for all students, one that is inclusive in that it will address the issue that affect academic achievement, and

life-long learning skills that will assist them in adapting to the global market and changing world.

Districts may adopt a particular pre-designed comprehensive reform strategy or they may develop their own. What is important is they address Quint's (2005) five challenges listed above within their reform. Later in this chapter is a closer look at the reform initiatives and a discussion of the five challenges facing high school reform.

Adolescent Development

The adolescent years are a time of rapid cognitive, physical, psychosocial/ emotional, and moral changes. Adolescence is the beginning of the child's life transition from childhood to adulthood. This section surveys the research on adolescent development in each of these four domains.

Cognitive development. This section of the literature review will discuss adolescent cognitive development through neurological changes, the difference in these changes between girls and boys, and how this can affect the learning process of the adolescent. Levine and Munsch (2011) stated, "Intellectually, 12-14 year olds experience a plateau in brain development" (p. 31). The student's attention span begins to grow and he or she believes the need to progress further and to gain more intellectual competence. The student compares themselves intellectually to their peers. At this time, the gap widens between high-achieving students and students in need of assistance.

Around 12 or 13 years, an adolescent begins to think on much broader terms. They are able to understand more abstract thinking and are beginning to see the connection between broad issues. Ames, Lig, Gesell, Waddell and Wolf stated, "This change in thinking is reflected in the different way they are taught at school; they are

expected to take more responsibility for their own learning and gone are the pictures and project type work of primary school" (p. 1).

Levine and Munsch (2011) stated, "At age 14 or 15, adolescents determine that not all institutions are perfect and faultless" (p. 32). Therefore, they become much more critical, sarcastic and disagreeable. Adults still have significant influence over the adolescent during this period of time; however; the adolescent will not always admit to that influence. Their disagreement is showing everyone that they are growing up and becoming individuals with their own ideas of what is right and wrong in their world.

The adolescent is also beginning to make decisions about their direction in life. He or she may have a job, start to make money, and decide how to spend this money. This can lead to disagreement between the adolescent and parents. At this time, Beck (n.d.) stated, "This group of individuals needs to learn decision-making through experience rather than someone telling them which way to do things to achieve the best outcome. This concept is often a challenging one for adults to realize and accept" (p. 2).

According to Moshman (2005), "Cognitive development is the development of knowledge and inference. In adolescent and beyond, this includes the development of advanced forms and levels of thinking, reasoning and rationality" (p. 1). Cognitive development is described by Piaget (1950) as the formal operational stage, "Formal thought reaches its fruition during adolescence. The adolescent, unlike the child, is an individual who thinks beyond the present and forms theories about everything, delighting especially in considerations of that which is not" (p. 163).

During the formal operations stage, adolescents are beginning to think in more abstract terms and to use logic in solving problems. Thinking abstractly means that the

teen is able to think about things such as faith, trust beliefs, and spirituality. The adolescent develops advanced reasoning skills which gives them the ability to think about options and possibilities. According to Moshman (2005), "The formal thinker spontaneously and systematically generates possibilities, and reconstrues realities in spite of those possibilities" (p. 9). Huebner (2000) wrote the following about formal operations: "It includes a more logical thought process and the ability to think about things hypothetically. It involves asking and answering the question, What if . . . ?" (p. 3).

Finally teens develop their meta-cognition. Meta-cognition is the ability to think about thinking. Huebner (2000) explained meta-cognition as, "It involves being able to think about how one is perceived by others. It can also be used to develop strategies, also known as mnemonic devices, for improving learning" (p. 3). An example is if students are able to understand they have difficulty comprehending what they are reading, they can be taught reading strategies to help them with their comprehension skills. In other words, in order to achieve academically, if students are struggling once they understand the reason why they are struggling due to the development of their meta-cognition, they will be able to arm themselves with strategies that will work on the area of deficit.

No two individuals will reach formal operations at exactly the same time. What distinguishes whether or not the adolescent has reached the formal operations stage is how he or she solves a problem. Moshman (2005) explained:

> The formal thinker, in other words, is able to distinguish logic from thought and thus to formulate and evaluate arguments independent of the truth or falsity of

> their premises. . . . Such reasoning plays a central role in the rigorous exploration of possibilities. (p.9)

Moshman (2005) stated, "With the development of abstract thinking, the ego becomes identified. The adolescent develops a sense of 'self" and can feel emotions such as being depressed or ambivalent" (p. 9). This is a step that the brain goes through on its transformation from concreteness to abstraction. Pearce (2002) explained:

> By age 11, body and brains becomes supportive instruments of this higher integration from which we view everything, even our own thinking, as "other to us Ego is unidentified with mind, which is a mirror of the brain in the same way that a television screen mirrors the translation from the set. (p. 84)

With all of the neurological changes and development, the student's attention span begins to grow; and he or she feels the need to progress further and gain more intellectual competence. The student begins to compare himself or herself intellectually to peers, and educators notice that the gap between good and poor students widens. The formal thought process begins to develop and students, according to Brown (2006), can "Generate abstractions, generate hypotheses, consider contrary-to-fact situations, generate all possibilities form a specific situation, approach a problem in a systematic fashion, and use combinatory logic 'the ability to combine ideas to derive a conclusion". (p. 2)

Intellectual development occurs at varying rates for all students. Students may or may not be intellectually mature enough to make decisions affecting their future educational goals. Some may be focused on an area in which they feel they will want to pursue as a future career, and others may still be dabbling in several areas of interest.

Often times, students at this age do better in educational situations where their learning is more active or hands-on. Students are also very concerned with fairness and may challenge the authority of adults. Throughout this whole phase, students are working on developing a better understanding of themselves, their interest and their abilities.

During the period of adolescent cognitive development the student will experience a heightened level of self-consciousness. As Huebner (2000) noted, "Teens tend to believe that everyone is as concerned with their thoughts and behaviors as they are. This leads teens to believe that they have an "imaginary audience of people who are always watching them" (p. 3). Teens also may be overly dramatic in reaction to a specific life situation, believe as though their life is ruined, or exhibit the "it cannot happen to me" belief system. During this period due to their ability to now think in abstract terms, teens will tend to become very cause oriented. Finally, teens will tend to be quick to point out the inconsistencies in adults' words and actions. Huebner (2000) explained, "They have difficulty seeing shades of gray. They see little room for error" (p. 4).

What can be called gender-blind education is affecting the learning of children at different ages. The differences in learning between girls and boys suggest there is a need for some specific adaptation for adolescent students. Huebner (2000) discussed "Girls and boys have different educational styles and different expectations for the teacher-student relationship. Teachers are often unaware of those differences; male teachers especially often misunderstand and misinterpret the behavior of their female students" (p. 5). Educational researchers have consistently found that girls are more concerned than

boys are with pleasing the teacher and more likely than boys to follow the teacher's example.

All of this research in adolescent brain development can lead to one main conclusion, that in addition to significant biological changes in the brain during adolescence, brains of girls and boys develop differently. This is important for educators to understand. Sax (2005) explained, "Girls and boys behave differently because they brains are wired differently" (p. 8).

Physical development. Physical development during this period of time can happen quickly. Puberty refers to the physical development of the adolescent's experience between the ages of 10 and 16. During this time, "Adolescents experience changes in their physical development at a rate of speed unparalleled since infancy" (Huebner, 2000, p. 1). Puberty is triggered by the maturation of hormones. The hormones have intricate communication between the brain and the reproductive organs (Storey, 1991).

The surge of hormones during puberty is often times used as an explanation of the behavioral and emotional trials that the adolescent may experience. However, Dahl and Hariri (2005) explained: "We now understand that high levels of sex hormones are not the cause of emotional problems in adolescents. At the time of peak levels of these hormones, most youth have no significant emotional difficulties at all" (p. 371). Research is concluding the adult levels of these hormones are at equal or higher levels than those at the time of the puberty hormone rush. Dahl and Hariri (2005) stressed, "The interrelationships between rising levels of these hormones, brain development, and emotional changes during adolescent is turning out to be quite complex" (p. 371). It is

being determined by recent research that the diverse hormone release in combination with other factors within the adolescence system have more effect on the behavioral and emotional systems of the individual rather than the amount of hormones released. For example, increased rates of depression in females are attributed to hormonal fluctuation in combination with social effects.

The timing of puberty is quite different between girls and boys. Girls will begin puberty between the ages of 10 and 14; and boys, between the ages of 12-16. Wigfield, Lutz and Wagner (2005) stated, "Girls enter puberty approximately 18 months before boys do, which means that during early adolescence, girls and boys of the same chronological age are at quite different points in their physical development, which can complicate their relationships" (p. 2).

Girls will develop breast and fat deposits around their hips and thighs. They begin to menstruate and to experience the burden of the hygiene responsibilities that go along with menstruation. Boys will experience a period of significant growth as though they are growing overnight, experiencing nocturnal emissions, developing facial hair and deepening their voices (Storey, 1991). Both girls and boys experience the growth of pubic hair and a surge in the amount of calories that they consume. Growth spurts for both boys and girls are very common during puberty. Girls usually grow taller than boys during puberty as they start puberty earlier (Storey, 1991). Storey (1991) mentioned "The male also experiences a greater increase in muscle mass than the female. The distribution of adipose tissue in the female is also noticeable and causes the adolescent to start resembling an adult" (p. 3). Stand and Storey (2005) affirmed "Approximately half of adult ideal body weight is gained during adolescence" (p. 5). On average, males gain

about 20 pounds during puberty and their body fat levels decrease. In females, body fat increases about 2.5 pounds per year. This causes much weight dissatisfaction among teenage females, and they often generate negative feelings about themselves and their bodies.

The physical changes that adolescents experience will usually result in the following: (a) Adolescents need more sleep and will frequently sleep longer. Huebner (2000) clarified "Research suggests that teens actually need more sleep to allow their bodies to conduct the internal work required for such rapid growth. On average, teens need about 9 ½ hours of sleep a night" (p. 1). (b) Due to the significant growth spurt, teens may be clumsier. Huebner (2000) explained, "During the phase of development, body parts do not all grow at the same rate. This can lead to clumsiness as the teen tries to cope with limbs that seem to have grown overnight. Teens can appear gangly and uncoordinated" (p. 2). (c) Adolescent girls can become overly sensitive about their weight with the rapid weight gain that they experience during puberty. As many as "sixty percent of adolescent girls report that they are trying to lose weight. A small percentage of adolescent girls (1-3 percent) become so obsessed with their weight that they develop server eating disorders such as anorexia nervosa, or bulimia" (Huebner, 2000, p. 2). (d) Adolescents will also become concerned if they are not developing at the same rate that their peers are developing. Huebner (2000) explained,

> Research suggest that early maturing boys tend to be more popular with peers and hold more leadership positions. Adults often assume that early maturing boys are cognitively mature as well. This assumption can be lead to false expectations about a young person's ability to take on increased responsibility. Because of

> their physical appearance, early maturing girls are more likely to experience pressure to become involved in dating relationships with older boys before they are emotionally ready. Early maturing girls tend to suffer more from depression, eating disorders, and anxiety (p. 2).

(e) As adolescents develop physically, they begin to rethinking their interactions with the opposite sex, especially the opposite sex parent. Girls may now shy away from kissing their fathers and boys will wave good night. (f) Adolescents will become very self-conscious. They seem to believe that everyone is watching every single move that they make. According to Pruitt (1999),

> It is as though they imagine others sizing them up through a magnifying glass that enhances every little flaw. Suddenly, the child who in the past seemed comfortable in his own skin looks as though he'd like to jump out of it. (p. 20)

(g) Finally, adolescents will confuse the concepts of intimacy and sex. The figure that if they engage in the physical act of sex, the emotional attachment that they have with that individual will grow and prosper. Stand and Story (2005) remind us that all of these changes that happen during adolescence can happen at different times for each individual. Stand and Story (2005) stated:

> The succession of these events during puberty is consistent among adolescents; however, there may be a great deal of deviation in the age of onset, duration, and tempo of these events between and within individuals. (p. 1)

All of these changes make the adolescent become uncomfortable. Ames, Lig, and Gesell (2005) stated, "Walking styles and posture can change to hide or underline some aspect of their physical development that they feel self-conscious about, although there is

very little that the adolescent doesn't feel self-conscious about when it comes to his or her body" (p. 2). The self-consciousness of not developing as rapidly as their peers or the same as their peers puts the adolescent at risk for eating disorders, fad diets and medications.

Psychosocial/Emotional development. Socially and emotionally the adolescent will feel some anxiety over the passing form childhood to adulthood. In addition to this, their bodies feel strange and this causes a sense of moodiness. They are beginning to disconnect form their family emotionally. This can be more difficult for the girls than for the boys. Ames et al. (2005) stated:

> Boys tend to go about their separating in a quieter way, they are more likely to withdraw to their rooms at 14 and 15 and speak in monosyllables to achieve the required distance. Girls on the other hand may unerringly choose every possible way of challenging or irritating their parents, particularly their mothers. (p. 2)

Adolescents can often times be compared to a two-year-old in that they are struggling with the same questions, "Who am I?" With the physical, social, and emotional changes that are happening, this can be a very lonely time for the adolescent. This is where peer groups and close friendships begin to develop especially for girls. It is a time when it appears as though peer groups are more important than the family in adolescents' life. However, the family, even though it is not apparent, is still the most important influence. The adolescent's sense of belonging needs to be fulfilled at home, school or within the community or the adolescent will look to material "things" to help to make them feel as though they "fit in". In addition to the sense of belonging, students must also develop a sense of independence. Even though this seems contradictory,

adolescents will not be able to move forward intellectually, socially and emotionally if they thing they have no control over their destiny. If they believe they are being controlled by adults, they will eventually develop self-destructive behaviors, loss of their ideas of who they are and where they are going and eventually lose their motivation for developing into an adult who contributes to society (Pruitt, 1999).

Pruitt (1999) described,

> Psychologist Erik Erikson theorized that a person must work through four developmental issues on the way to forming an identity during adolescence: in short, they are trust, autonomy, initiative, and industry. According to Erikson, establishing trust is the process by which a teen seeks and finds friends who are trustworthy and admirable. (p. 42)

The adolescent is investigating what they would like to do with their lives, what kind of people they would like to be, as well as what they feel strongly about. The adolescent begins to integrate opinions of influential adults into their own likes and dislikes. This will help the adolescent to establish a clear sense of values, beliefs, occupational goals and relationship expectations. They will begin to discover where he or she fit and what direction they will be going in the world.

With the physical, social and emotional changes that are happening, this can be a very lonely time for the adolescent. As Sylwester (2007) stated, “The adolescent goodbyes to childhood and family are balanced by their hellos to adolescence and peer friendships. Their reach for autonomy often begins informally with childhood expressions of interest and aptitude” (p. 127). This is where peer groups and close friendships begin to develop especially for girls. It is a time when it appears as though

peer groups are more important than the family in the adolescent's life; however, the family, even though it is not apparent, is still the most important influence.

A balance between being self-reliant as well as having a need for being with others is a necessary component to the psychological development of the adolescent. Pruitt (1999) stated the following:

> In establishing a healthy identity, the teen must strike a balance between being with others and being comfortable when alone. As a result, parents often see shifts in the teenagers needs for social time and private time. (p. 30)

Autonomy for adolescents refers to the individual becoming independent and self-governing in their relationships with others. Huebner (2000) defined "autonomous teens" as those who "have gained the ability to make and follow through with their own decisions, live by their own set of principles of right and wrong, and become less emotionally dependent on parents" (p. 5). The autonomy is necessary if the adolescent is to become self-sufficient in society.

It is difficult to allow the adolescent to become autonomous. As Pruitt (1999) noted, "Studies have shown that those who have the easiest time achieving independence came from warm supportive families who operate under clearly defined rules and who enjoy open communication between the parents and their children" (pp. 46-47). Adolescents who grow up in more restrictive homes will have more difficult time becoming autonomous. Autonomy can cause fear in the adolescent, which is completely normal. It is important to assure the adolescent that most individuals are very successful when they develop their adult independence or autonomy.

Intimacy for adolescents can refer to either close relationships between same-sex or opposite-sex friendships. Huebner (2000) explained:

> Intimacy refers to closer relationships in which people are open, honest, caring, and trusting. Friendships provide the first setting in which young people can practice their social skills with those who are their equals. (p. 5)

Social development among this group of teens is influenced by students having a strong need to belong to a group, vying for social positioning within a group, striving for recognition for their efforts and achievements and being dependent on their parent/guardian beliefs and values; yet doing as much as possible to become individuals and to develop their own beliefs and value systems. As Storey (1991) stated:

> In adolescent development the peer group becomes a secure atmosphere as the adolescent commences to separate him or herself from the family. It is in the peer group that the adolescent feels more comfortable expressing his or her feelings and exploring changes of common origin. (p. 4)

Christie and Viner (2006) added:

> As adolescents start to redefine themselves in relation to others, they begin to move to a position where they define other people in relation to themselves. This way of thinking about oneself means that it can be hard to understand the impact of behavior on others or to feel concerned for how others might be affected by behavior. (p. 3)

As part of developing their intimacy skills, adolescents need to have a sufficient sense of identity. Pruitt (1999) stated, “Only after resolving some of the basic issues around identity can a person evaluate new relationships according to self-knowledge and

a clear awareness of his own system of values and goals" (p. 56). Intimacy can refer to all relationships that an adolescent will experiment with; relationships between opposite-sex or same-sex friends and family members. The development of these relationships reflects that the adolescent is mature and has a strong sense of identity.

Through physical development and the maturation of their identity and intimacy skills, teens now become both physically mature and cognitively advanced to begin thinking about their sexuality. Sylwester (2007) affirmed, "Puberty activates our reproductive system. Unfortunately, our biological ability to reproduce emerges a decade or more before most of us are psychologically and financially capable of rearing children" (p. 41). Adolescents will develop either healthy or unhealthy sexual identities depending on the education they receive relevant to their sexuality. Huebner (2000) stated, "More than half of most high school students report being sexually active. Many experts agree that the mixed messages teens receive about sexuality contribute to problems such as teen pregnancy and sexually-transmitted diseases" (p. 5).

In addition, research has suggested that hereditary influences, cultural influences and the individual's moral development will determine their sexual identity. Moshman (2005) stated, "Depending on cultural reactions to their sexual dispositions and desires, some adolescents find the construction of sexual identity more difficult than others, and some find themselves in circumstances where it appears to be impossible" (p. 111).

The strong building of relationships and transitioning into adulthood leads the adolescent in to the search to identify potential partners who will accompany the teen into adult life. Adolescents strive for identity, autonomy and intimacy that will further them in achieving their life goals-successful careers and productive family lives.

Huebner (2000) wrote, “Our society tends to foster and value attitudes of competition and success” (p. 5). With the cognitive development that occurs during adolescence, teens will begin to see the relationship between their academic abilities and their future vocational aspirations. They will need to discover their strong interest areas, what they are currently good at and what exactly they willing to strive for future success. Adolescents are about to transition into a world where they are considered adults with adult responsibilities. According to Pruitt (1999), “In order to make this passage successfully, they must reassess their current values and goals and explore their options for internal growth and growth out in the world” (p. 53).

Emotional fluctuations go hand-in-hand with the cognitive, physical and psychosocial changes that the adolescent experiences. In many adolescents the intensity and frequency of negative emotions tend to increase, and mixed emotions become common. Also, teens will experience dramatic mood swings.

In addition to their own mood swings, adolescents have a difficult time reading the emotions of others. In order to read emotions, adults use their prefrontal cortex. For adolescents the most active part of the brain is the amygdale where anger and fear prevail. Walsh (2004) stated, “Adults use the rational part of the brain to read emotions, but adolescents basically do it with a gut reaction. And they are frequently wrong” (p. 78). Frequently, an adolescent will misinterpret a joke, an offhand comment or an accidental bump in the hall. This can escalate to the point where it results in an altercation with another students resulting in disciplinary action against the student. Walsh explained:

Communicating emotions is always tricky, but it is especially challenging for

> adolescents who are faced with a triple whammy. . . . To put the situation into something like a mathematical equation: misinterpretation + gut response + lousy brakes = poor communication. (p. 79)

This is why it can be difficult for adults to assess adolescent emotions and react accordingly to the adolescent. In order to resolve this problem, adolescents need to be armed with appropriate strategies to communicate their emotions. Since it is more difficult for an adolescent to be reasonable, it is up to the adult not to escalate the situation. Instead of gut reactions, adolescents need to be taught to be adults they need to learn to interpret emotions. It can also help the adolescents to educate themselves about their own brain development and how this can be a factor in interpreting emotions. Also, if adults overreact to a specific situation, it is important for them to apologize to the adolescent and explain to the adolescent why they overreacted. This also provides an appropriate example for the adolescent to follow.

Towards the end of the adolescent period, the individual will begin to act more consistently as an adult. Pruitt (1999) reiterated,

> The teen's judgment will become realistic and less grandiose; the youngster will show more concern for others. The young person emerging form the teenage years will be able to make choices based on actual skills and abilities. (p. 52)

However, even though their feelings have leveled, adolescents will still experience some anxiety about the future and the remainder of changes that will occur in their adult life. They will be experiencing more control and freedoms in their lives but will also be experiencing stress over their new responsibilities. In reaction to their new responsibilities, they may also think they do not fit the expectations of society. However,

as time goes on, adolescents become more and more comfortable with their freedom and more secure in their new identity. They begin to realize that the input that their parents had when they were younger was valid, and they will now rely on parental advice for decision making. Pruitt (199) stated:

> More and more, the teen will make independent life decisions; will settle into a preliminary adult identity; will engage in intimate relationships; will decide occupational commitments; and will make a system of morals and values. (p. 53)

Moral development. Moral development occurs from childhood through adulthood and has important implications on the development of the self, behavior that is beneficial to others and the ability to reason. Pruitt (1999) stated:

> As an adolescent's reasoning abilities increase, he begins to focus more on the deeper questions of right and wrong. What kind of person do I want to be? How should I react in certain situations? When is it important to stand firm and when is there room to be flexible? (p. 7)

It is important during this time that parents remain consistent with their rules about the adolescent's behavior and explain why the rules keep in consideration the feelings and opinions of the members of their family schools and community (Pruitt, 1999). This will assist the adolescents in creating a moral framework for them to react to situations consistently with fairness and reasonableness. The main components of this moral framework will help the adolescents to determine the difference between right and wrong, how to act in ways that provide the greatest amount of good for all, and to contribute to the larger society in meaningful ways (Pruitt, 1999).

Piaget's (1950) research and teachings, morality was a product of developing minds. Piaget describes three stages of moral reasoning that every child experiences at approximately the same age. In the first stage, called unilateral respect, young children know there are authorities who insist that they follow the rules. They understand that there are consequences in the event they do not follow the rules. In the second stage, termed as the moral concept of cooperation, rules surface as agreements to insure the respect of everyone. Rules are applied to make things fair. Children need not rely on authorities to impose rules, as rules are mutually agreed upon by all. Finally, in the third stage, children expand their understanding of the rules to include law, responsibility and justice. Turnpike (2002) clarified:

> They become aware that rules of moral conduct are a part of our culture, and that they can and do change. Perhaps most importantly, children begin to understand that we comply with the rules of morality because we choose to adhere to high principles or standards, and not out of simple-minded obedience to authority. (p. 143)

Piaget's (1950) theory maintains that moral development ends during middle childhood. However, it is the belief of many that moral development continues through adulthood. Reimer, Paolitto, and Hersh (1983) stated:

> The unique contribution of Kohlberg has been to apply to the study of moral judgment the concept of stage development. In a sense, Kohlberg has helped finish Piaget's unfinished worked; but in the process, he has greatly expanded and revised Piaget's original findings. (p. 43-44)

Through Kohlberg's work, he discovered six stages versus Piaget's three. The first three stages of the six do compare and relate to Piaget's three stages.

Kohlberg's theory has been called the theory of moral development; however, it is more of a description of how moral judgment develops. The section will look briefly at how moral judgment operates in the individual's life before moving into the different stages that Kolhberg defined. According to Reimer et al. (1983), Kohlberg determined, "The exercise of moral judgment is a cognitive process that allows us to reflect on our values and order them in a logical hierarchy" (p. 47). Therefore, the values and rules that were impressed upon us at a young age are ranked in our cognitive process and used to aid us in decision making when moral issues are presented.

Next discussed will be the actual stages of moral development and the characteristics. Reimer, et al. (1993) described the four characteristics of cognitive stages of development; stages imply qualitative differences in modes of thinking, each stage forms a structured whole, stages form an invariant sequence, and stages are hierarchical integrations. The first characteristic, stages imply qualitative differences in modes of thinking, means that two people may share the same value, but each person will have a different way of thinking about the value. The second characteristic, each stage forms a structured whole, as the child develops they begin to think more about each moral issues in terms of causality, perspective and conversations. The third characteristic, stages form an invariant sequence, which means to achieve a later stage, one must understand an earlier stage. For example, children must understand that an individual's life is much more important than any material object. They have learned ranking and prioritization within this characteristic. The fourth characteristic, stages are hierarchical integrations, is

the individual's thinking develops and becomes more mature, the higher stage integrates with the lower stage. (pp. 52-53). Reimer et al. (1983) maintained,

> Kohlberg's theory of moral development and moral education grows out of, and depends on, his empirical delineation of the stages of moral judgment. Since he defines moral development in terms of movement through the stages, and moral education in terms of stimulating such movement, it is clear that to understand his theory; one must be thoroughly familiar with the definition of these stages. (p. 57)

To assist in understanding Kohlberg's theory, we must also understand that there are three levels of moral reasoning that are part of the theory. Level 1 is the preconventional level. In the preconventional level, the individuals involved think about the consequences that they would face for a particular action. Level 2 is the conventional level, where an individual understands that there are norms, and an individual is expected to act within these norms. Level 3 is the postconventional or principled level. An individual at this level acts according to the principals that any good society is based.

The first two stages Kohlberg described are at the preconventional level. The first stage is called the Heteronomous Morality Stage. At this stage, the child avoids punishment by sticking to the rules. Crain (1985) stated, "The child assumes that powerful authorities hand down a fixed set of rules which he or she must unquestioningly obey" (p. 120). In this stage of moral development, children do not choose to make moral decisions; they make decisions based on what adults say they must do to avoid punishment. This stage usually takes place around the ages from 5 to 8.

The second stage is called Individualism, Instrumental Purpose, and Exchange Stage. Crain (1985) stated, "At this stage children recognize there is not just one right

view that is handed down by the authorities. Different individuals have different viewpoints" (p. 120). It is believed by children in this stage each person has the right to make decisions based on their own interests. In both stages 1 and 2, children will talk about consequences or punishment. According to Crain (1985), "Stage 1 punishment is tied up in the child's mind with wrongness; punishment proves that disobedience is wrong. At stage 2, in contrast, punishment is simply a risk that one naturally wants to avoid" (p. 121). Children at this stage act to meet their own interests and let others do the same; in addition, children begin to develop an understanding of what is fair. This stage usually takes place at age 7 or 8 and continues through grade school.

Stages at the Conventional Level, stage 3 is termed Mutual Interpersonal Expectations, Relationships, and Interpersonal Conformity Stage. During this stage, children who are entering adolescence begin to become aware of the values and expectations of the family and community and to behave positively (Crain, 1985). According to Crain (1985) "Good behavior means having good motives and interpersonal feelings such as love empathy, trust, and concern for others" (p. 121). There is a need to be a good person and be caring for others during this stage. It is when the child is learning about and valuing respect, loyalty, trust, and gratitude. This stage takes place at around age 9 and continues through adolescence.

The fourth stage, Social Systems and Conscience is a time where the adolescent becomes more aware of their community as a whole (Crain, 1985). Crain (1985) stated, "Now the emphasis is on obeying laws, respecting authority, and performing one's duties so that the social order is maintained (p. 122). Respect is now for the institution as a

whole or the community. Right is contributing to the community or institution. This stage develops around mid-adolescence and reaches full development after age 18.

The fifth stage, Social Contract or Utility and Individual Right Stage is a time where the adolescent determines that individuals should have certain basic rights and certain procedures for creating laws and improving society (Crain, 1985). Crain (1985) stated, "Stage 5 respondents basically believe that a good society is best conceived as a social contract into which people freely enter to work toward the benefit of all" (p. 123). Making sure that rules and laws do the greatest good for the greatest number of individuals is important at this stage.

Stage six, Universal Ethical Principles, defines the main beliefs for which we attain justice. Kohlberg did determine this stage is a theoretical stage (Crain, 1985). Crain (1985) stated, "Theoretically, one issue that distinguishes Stage 5 from Stage 6 is civil disobedience" (p. 124). In this stage, the adolescent not only works toward the benefit for all but also determines the rules for what constitutes appropriate, beneficial behavior. Reimer et al. (1983) explained,

> Kohlberg has not found subjects (other than philosophers) who have naturally developed to a Stage 6 conception of morality, but believing that this stage represents the ideal form of moral judgment, he has not given up hope of tracing its development among mature adults. (p. 81)

Cognitive, physical, social/emotional and moral development greatly affects adolescents as they proceed through their daily routines of attending school, participating in sports, organization and family activities. The effects of these changes have a great impact on the ability of the adolescent to give undivided attention to the various demands

of their daily routine. As education continues to evolve, educators need to investigate the reform that the American high school experienced as well as the reform that is yet to come with the consideration of the extenuating developmental aspects of adolescence.

Successful Interventions to Decrease High School Dropout Rates

There are many ways in which schools enable students to drop out of school, unintentionally, through school practices, policies, and program implementations that push certain outcomes but have inadvertent consequences on school completion. A brief review of some of the interventions and prevention programs will highlight some of the ways in which schools either discourage or encourage students to stay in school. In an article authored by members of the District Administration (2005), the authors reported that the best way to decrease high school dropping out is through a combination of prevention, interventions, and continued support.

Many school systems unintentionally encourage students to drop out of school by placing them in intervention programs that are not effective at reducing the dropout rate. There are many intervention programs that are available to students throughout their academic career that are intended to assist them in achieving their academic goal of completing high school. However, many of these intervention programs aimed at preventing students from dropping out of school are not working or have had very limited success (Dynarski & Gleason, 1998). Oftentimes, the wrong students are identified for intervention programs as well, thereby reducing the efficacy of the intervention programs (Gleason & Dynarski, 2002). Furthermore, there are a limited number of intervention programs that have been tested to prove their effectiveness in reducing the dropout rate (Montecel, Cortez, & Cortez, 2004). A great deal of information is available on how to

identify potential dropouts; however, less is known about how to keep at-risk students in school (Christenson & Thurlow, 2004).

Even though there are many programs that do not effectively address the dropout issue, there are scientifically-based interventions and prevention programs that have shown positive results in reducing the dropout rate and are being adopted by schools to formally encourage students to graduate from high school. Furthermore, research is continuously being conducted to gain a better understanding of the most effective dropout prevention program for school systems to implement (Montecel et al., 2004).

The National Dropout Prevention Center (NDPC), working in conjunction with Communities in Schools, an organization specializing in dropout prevention, published a technical report based on an exhaustive review of the literature identifying the risk factors that can be used to identify students at-risk of dropping out of school (Hammond et al., 2007).

Examples of exemplary programs that are evidenced-based are included in the report. The list of exemplary programs was developed using a matrix tool entitled The Matrix of Prevention Programs. The exemplary programs were identified using The Matrix of Prevention Programs for the following reasons (Hammond et al., 2007):

> (1) The purpose of the matrix was to help identify effective, evidence-based programs designed to reduce or eliminate problem behaviors, such as delinquency, aggression, violence, substance use, school behavioral problems, and risk factors identified by this project as key to school dropout; (2) programs were rated as effective by 12 highly respected federal and private agencies and several researchers based on an evaluation results usually from experimental or

> quasi-experimental designs; (3) program selection was based on relatively stringent criteria, such as the theoretical/research basis from program components and quality of implementation; and (4) programs were ranked based on the content, evaluation, and outcome criteria. (p. 49)

As a result of The Matrix of Prevention Program, the NDPC was able to accumulate a list of 50 exemplary programs that target identified individual and family risk factors (Hammond et al., 2007). The intervention program that was highlighted in the study was selected from the list of exemplary intervention programs in the NDPC technical report.

A closer look at individual dropout intervention programs will highlight some of the practices that encourage students to remain in school and graduate. The intervention programs that will be evaluated include Coca-Cola Valued Youth Program (Coca-Cola VYP), Check & Connect, Career Academies, a modified Career Academy known as Junior Reserve Officer Training Corp Career Academy (JROTCCA), and Achievement for Latinos through Academic Success (ALAS).

Coca-Cola Valued Youth Program. The Coca-Cola Valued Youth Program's main objective is to reduce the dropout rates of middle and high school students who are at risk of school failure (Fashola & Slavin, 1998). The Coca-Cola VYP has been tested using both qualitative and quantitative research designs to validate the effectiveness of the program. The program based its selection of at-risk students who get to participate in the program on two of the variables that had been identified for the study including the following: classified as low socioeconomic status and school location. The Coca-Cola VYP has been implanted in both rural and urban school settings. The program was developed over 25 years ago as a result of a desire by Dr. Jose Cardenas to help poor,

minority, and limited-English proficient students who he believed were getting an inadequate education compared to students who attended schools in wealthier districts (Cardenas, Montecel, Supik, & Harris, 1992).

As a result of the work of Dr. Cardenas, the Coca-Cola VYP has succeeded in reducing dropout rates among at-risk students participating in the program. The latest statistics show that 24 cities in the United States, including 108 schools, have implemented the Coca-Cola VYP (Hammond et al., 2007). In addition, the Coca-Cola VYP has helped keep approximately 98% of the program's participants in school (Hammond et al., 2007). Using a quasi-experimental design, researchers conducted a two-year study and concluded that at-risk students who participated in the Coca-Cola VYP had lower dropout rates, improved reading scores, improved attitudes toward school, and better self-esteem (Montecel et al., 1994).

The Coca-Cola VYP program works with at-risk students who are in middle or high school. The students are given the responsibility of tutoring three elementary students four hours a week and are paid minimum wage for their efforts (Fashola & Slavin, 1998). The students have to take a class on effective tutoring strategies and are provided with additional help to improve their own academic skills as well (Fashola & Slavin, 1998). The approach of giving the students some responsibility, paying them for their efforts, and helping the students develop their basic skills, has proven to achieve one of the primary goals set forth in the program which is to reduce the dropout rate of students, specifically those students with limited English proficiency (Lehr, Johnson, Bremer, Cosio, & Thompson, 2004). The cost of implementing the program ranges from

$150 to $250 per student and is used for staff training, tutor stipends, evaluation, and awards (Lehr et al., 2004).

Check & Connect. Another way in which students are formally encouraged to stay in school is through the intervention program known as Check & Connect. This program was first developed at the University of Minnesota with input from regular education teachers, special education teachers, students, and parents (Lehr et al. 2004) The original intent of the program was to address the dropout issue among students with emotional and behavioral disabilities but has since been expanded to include students with and without disabilities and includes their families (Lehr et al. 2004).

The primary goal of Check & Connect is to keep students engaged in school by promoting the necessity of regular attendance in an effort to decrease the chances of school failure (Lehr et al. 2004). The program utilized a sound theoretical construct and has been tested using longitudinal studies to determine the reliability and validity of the program (Lehr et al. 2004). The program based its selection of eligible students who are asked to participate in the program on one of the variables that have been chosen for the study including low socioeconomic status. Check & Connect has been implemented in urban school settings with high school students (Lehr et al. 2004).

Since its inception in 1992, the Check & Connect Program has been very successful in reducing the dropout rate and reducing the number of absences among student at-risk of dropping out of school (Anderson, Christenson, Sinclair, & Lehr, 2004). Results from one evaluation of the Check & Connect program revealed a positive impact in the lives of students who enrolled in the program as measured by the number of students who were sill enrolled in the program at the end of ninth grade compared to the

control group (Sinclair, Christenson, Evelo, & Hurley, 1998). Results from the longitudinal study showed that 68% of the students who were enrolled in the Check & Connect program were still in school five years later and that only 29% of the students who were in the control group were still on track for graduation (Sinclair et. al., 1998).

Absenteeism is often cited in the literature as one of the leading risk factors used to determine which students are at-risk of dropping out of school (Suh, Suh, & Houston, 2007). Consequently, it is important to look at intervention strategies and programs that focus on this particular risk factor. The Check & Connect program is one of the intervention programs designed to reduce the number of absences. One evaluation of the Check & Connect program focused on the effectiveness of reducing the rate of truancy among students enrolled in the program (Sinclair & Kaibel, 2002). The longitudinal study revealed positive results on its effectiveness in reducing the number of absences (Sinclair & Kaibel, 2002). After attending the Check & Connect program for two years, the percentage of students who were present 95% of the time rose from 11% to 34%. Additionally, the portion of students who were absent more than 15% of the time was reduced from 45% to 32% (Sinclair & Kaibel, 2002).

The Check & Connect Program is based on three main foundational components. According to Lehr et al. (2004) the fundamental elements of the model include the following, “Relationship building, routine observations of warning signs of withdrawal, individualized interventions, promotion of problem solving skills, and encouragement of students’ participation in school activities” (p. 42).

The designated monitors are assigned to follow a group of students to “check” on them to make sure they are in school on a daily basis. The people who are employed as

monitors are paid by the district and not by individual schools. This facilitates better follow up with students and enables continuity throughout the student's academic career. In addition, allowing the monitors to follow the students as they progress through the school system enables them to make adjustments as the students' needs change (Kennelly & Monrad, 2007).

"Connect" is the other main component of the Check & Connect program. The connection component of the program is designed to provide the necessary interventions based on the results of the monitors' "checking" on the students. The monitors are given the task of providing the necessary interventions based on monthly meetings with the students using a five-step problem solving strategy (Lehr et al., 2004). The cost of implementing the Check & Connect program was approximately $1,400 per student per year during the 2001-2002 school year (Sinclair & Kaibel, 2002).

Career Academies. Career Academies were developed by Charles Bower, who intended to increase graduation rates for poor and minority inner city youth (Stern, Raby, & Dayton, 1992). The first Career Academy opened in 1969 at the Thomas Edison High School in Philadelphia, Pennsylvania. The program was later replicated in San Francisco, California in the 1980s (Stern et al., 1992). Career Academies proved to be especially helpful to students who were classified as at-risk of dropping out of school (Kemple & Scott-Clayton, 2004).

Career Academies offered unique features for students that were not being offered in a traditional classroom setting. The Career Academy focused on small learning environments that were set up as schools with in schools (Stern et al., 1992). Typically, the classes are designed as cohorts that allowed a certain number of students in each year,

thus allowing for smaller class sizes and more focused teacher attention for each student. The students chose a particular career focus to study and then learned both career and academic skills based on the chosen content area (Stern et al., 1992). In addition, students who did well in the program were afforded the opportunity to work with local employers to gain additional training and skills needed to succeed in the work force. Furthermore, local businesses were considered an integral component of Career Academies and offer support through supplemental teaching, mentors, and part-time work for students (Stern et al., 1992).

Although results were mixed, Career Academies represented a potential intervention strategy for students who are at-risk of dropping out of school (Kemple, 2004). Career Academies are highlighted for several reasons. First, the effectiveness of Career Academies has been tested using various quantitative design methods, (Kemple, 2004; Kemple & Snipes, 2000). Second, the Career Academy concept was originally designed to help high school students of low socioeconomic status who were in danger of dropping out of school (Stern et al., 1992). Third, Career Academies have been implemented in urban or rural settings that target high school students (Stern et al., 1992).

The results of several studies show largely positive results on the effectiveness of Career Academies. One study involving a random controlled assignment found that at-risk students who participated in Career Academies remained in school longer than the students selected in the comparison group; however, the study also discovered that participating students were not more likely to earn a diploma than the comparison group (Kemple & Snipes, 2000). The same study also revealed that students who participated in the Career Academies program had better attendance records, tended to be more likely

to apply to college, and completed more academic and vocational classes (Kemple & Snipes, 2000). One research study that was conducted, utilizing both quantitative and qualitative data, indicated that the dropout rate decreased enough to be statistically significant among students who participated in Career Academies compared to matched comparison groups (Maxwell & Rubin, 2001).

Career Academy (Junior Reserve Officer Training Corp Career Academy, JROTCCA). Some districts have implemented a modified type of career academy known as JROTCCA. This type of Career Academy adds one incremental component to the career academy model by including the Junior Reserve Officer Training Corp (JROTC). By combining the Career Academy model with JROTC, it came to be known as Junior Reserve Officer Training Corp Career Academy (JROTCCA). The program was developed by the Department of Defense and the Department of Education (Elliot, Hanser, & Gilroy, 2002). The main difference between the traditional Career Academy and the modified Career Academy is the required participation in the JROTC program.

Elliot et al. (2002) conducted a quantitative study that examined the effectiveness in generating various outcomes for students who were enrolled in JROTCCA compared to students not enrolled in the academy. Variables that were studied to prove the effectiveness of JROTCCA programs include grades, attendance, and graduation status. The study was focused on urban school districts and included 18 different cohorts from JROTCCA programs across the United States. Results of the study indicated that students who were enrolled in the JROTCCA had better attendance rates, higher graduation rates, and higher first year graduation rates compared to students who were not enrolled in Career Academies (Elliot et al., 2002).

Achievement for Latinos through Academic Success. Achievement for Latinos through Academic Success was first implemented in 1990 in an urban school district in Los Angeles, California. The program had several goals, but the primary focus of the program was to reduce the dropout rate of Latino Youth. Even though the program is no longer in existence, it is referred to extensively in the literature regarding dropout prevention programs. For example, Fashola and Slavin (1998) highlighted the ALAS program for its document success and the fact that the program "demonstrates an effective approach to dropout prevention" (p. 166).

The ALAS intervention program was designed for students who were enrolled in school during grades 7-12 and the program endeavored to bring together several different spheres of influence for at-risk students. Family, school, community, and student were brought together to form a collaborative approach to provide additional support for the student at-risk of dropping out of school (Fashola & Slavin, 1998). The ALAS program focused on six strategies designed to intervene and to ensure students did not drop out of school (Fashola & Slavin, 1998). These strategies included the following: monitoring the attendance rate on a daily basis, remediation of students' problem-solving skills, supplemental support for parents to address student behavior, providing opportunities to bond with peers and school personnel, providing assistance for families for social service and community support groups, and providing feedback to parents from teachers and school system personnel (Fashola & Slavin, 1998).

The ALAS program was of interest to the present researcher for four specific reasons. First, the ALAS program worked with students who attended urban school districts. Second, the targeted population consisted of students at risk of dropping out of

school. Third, even though the ALAS intervention program started during the seventh grade, the intervention program followed the students until they completed the 12th grade. Fourth, the program was tested and found reliable in generating a number of positive students outcomes including reducing student dropout rate, reducing the rate of absenteeism, and improving academic achievement (Gandara, Larson, Rumberger, & Mehan, 1998).

The success of the ALAS program cannot be ignored. One study found remarkable success for the students who had been enrolled in the program. According to Fashola and Slavin (1998), several student outcomes were measured to determine the effectiveness of the program including staying in school, completing school, and progressing in school. Results indicated that students who were enrolled in the program at the end of ninth grade were not inclined to stay in school, staying in school at a higher rate than non-participants through 11th grade, and were much more likely to progress in school and graduate on time (Larson & Rumberger, 1995).

Five Challenges Facing High School Reform

Challenge 1: Creating a personalized and orderly learning environment.

Wilson and Corbett stated "A positive school environment-where students and adults know each other well and where adults express care and concern for students' well-being, intellectual growth, and education success, is key motivational element in the learning process for adolescents" (as cited in Quint, 2006, p. 19). Frequently, students who drop out of high school do so because they believe they are not accepted by their classmates, teachers, and administrators. They begin to lose the community feeling that the middle

school may have given up on them and the impersonal feelings of the high school can create behavior problems or exacerbate a problem that already exists.

Quint (2006) suggested the strategy that schools can adopt to create a more personalized learning environment to create smaller learning communities (p. 20). In smaller learning communities groups of students share the same core-subject teachers. This helps the students become more known by their core academic teachers. Quint (2006) suggest second, high schools can have separate freshman academies followed by smaller learning communities for upperclassmen (p. 21). Quint proclaimed that it would help increase attendance and lower the dropout rates. Third, high schools can focus on the freshman students in freshman academies and sponsor seminars to assist students in succeeding in the critical first year of high school. Finally, by assigning faculty advisers, high schools can give freshmen students a sense that there is an adult in the building who cares about their success and progress.

The above strategies can also assist in decreasing the incidences of disruptive behavior. Establishing smaller learning communities, there is a standard code of conduct with established, clear expectations that are expected by all instructors in the smaller learning community. Behavioral issues are addressed consistently and effectively in these environments.

Challenge 2: Assisting students who enter high school with poor academic skills. It has been determined that large numbers of students who enter high schools are not prepared academically for success. The U.S. Department of Education (Quint, 2006) confirmed the following:

The National Assessment of Educational Progress (NAEP) often referred to as

> "The Nation's Report card" periodically assesses the performance of fourth, eighth, and twelfth graders in reading, writing, geography, science and U.S. History. Tabulations from the 2003 NAEP indicate that 43 percent of eighth graders in large central city schools read below even a basic level, with only "partial mastery" of the skills needed for proficient work at grade level. (p. 30)

Quint (2006) wrote about how to assist students who are low performing, high schools can use the following strategies: (a) establish the blocked schedule where classes meet for extended periods and allow students to attempt and to earn more credits per year, (b) provide opportunities for semester catch-up courses in reading and math for student success in the regular curriculum areas and accumulate credits in areas needed for graduation, and finally (c), provide a structured curriculum similar to the catch-up courses and students will tend to spend more time engaged in the task at hand. Combine these with the skill development strategies that are taught in a freshman seminar, most students are armed with strategies that will help them to be successful in their academic pursuits (p. 32).

Challenge 3: Improving instructional content and pedagogy. Quint (2006) explained "A central paradox of American education in that students from disadvantaged backgrounds, who arguably most need well-qualified and experienced teachers in order to remedy academic deficits and move forward, are least likely to get such teachers" (p. 37). New teachers are usually assigned open positions in the school, which are often the most difficult students. In some cases, this is a benefit that the new teachers have been trained in instructional strategies to work with struggling learners. Also, another issue facing administrators is in less affluent school systems, you do not always get the exceptional

candidates for positions open within a district. The trend appears to be that well-prepared instructors are looking to the more affluent districts for employment. Quint (2006) suggests high schools improve instructional content and pedagogy by educators engaging in professional development focusing on reworking the curriculum to meet the student's current needs

Challenge 4: Preparing students for the world beyond high school. Quint (2006) stated "There is widespread acknowledgment that high schools need to produce graduates who have the knowledge, experience and skills needed to gain admission to college; or, if students opt not to attend college, to find good jobs" (p. 44). Some studies indicate teens in large urban high schools do not have access to the guidance counseling necessary to finish the required classes to obtain entrance into college or to complete the application for entrance. Students are also at a disadvantage because they are uniformed about the financial aid application to assist with the cost of postsecondary education. Still, in high school, it is common to see two tracks of coursework. One track for students who will be going to colleges or technical schools after high school graduation, and another track for students who do not intend to pursue any post-secondary options (Quint, 2006).

Challenge 5: Stimulating Change. Quint (2006) maintained,

> Putting in place the structural and instructional changes that lead to more personalized, academically-challenging environments represent a new endeavor for many schools. While raising the quality of instruction appears to be the most demanding of these new changes, all the reforms are difficult to implement and to sustain. (p. 53)

Reforms for high schools present challenges for implementation. There is a great amount of time, energy, knowledge and support that go into high school change. In addition, there are often times reluctance to change as the school system is already overstressed with personnel cutbacks and larger class sizes. Districts and administrators must decide which strategy is most appropriate for their school and community, as they will be responsible to support the effort for a lengthy period of time.

Quint (2006) suggested districts wanting to implement change must consider the following: First, creating and sustaining effective change requires a large investment of personnel resources. Second, when considering making a change, school districts and administrators need to evaluate the program already in place and determine whether the complete program needs to be changed or if the program in place just needs a few adjustments. Third, the school district must be completely behind the change, ready to support the staff and continue the process to be sure that the change will be effective. Fourth, it is very important the district and administrators stay committed to the reform and not jump to another initiative midway in the process. Finally, districts and administrators must have reasonable expectations about what changes will be made by the reform efforts, and the impact that the reform will have on the students.

The overall goal of these initiatives discussed is that all students who graduate from high school will be prepared for either the workforce or for any post-secondary educational option they choose. These reforms will mean a change in the structure of the high school system. There are no guarantees that these reforms will be successful all the time, but high schools are now in a position where the students need to become competitive nationally and globally.

Summary

This literature review first gave a brief history of the secondary education system in early America and pinpointed the birth of the traditional American high school system to the late 19th century. Next, some past school reform efforts were described, pointing out what factors made a reform succeed or fail. History indicates the single most important factor in reform success is that the reforms must be grounded in a proper understanding of adolescent development. Thus, the next section of the literature review discusses in-depth the research on four aspects of adolescent development: cognitive, physical, psychosocial/emotional, and moral development. Then, the chapter describes several examples of successful intervention programs. The literature review concludes with an explanation of the five major challenges that must be overcome in order to implement a successful high school reform. The next chapter describes in detail the methods of the present study, which sought to investigate a particular reform in a single high school, with the hope that the reform can be useful in lowering high school dropout rates in other districts.

Chapter Three: Methodology

The purpose of this mixed methods study was two-fold. In the qualitative portion of the study, the researcher's goal was to examine the perceptions that administrators, graduation coaches, and participating students had of the use of graduation coaches as an intervention for at-risk high school students. The researcher sought to discover whether graduation coaches were a positive influence for students who were at risk of not earning a high school diploma. In the quantitative component of this study, the researcher aimed to discover whether the intervention of a graduation coach had an influence on students' attendance, discipline, and number of credits earned during the time of the intervention compared to other years the student was in high school. This study looked at secondary data to compare before and after the intervention to see if there was a correlation between students being paired with a graduation coach and student outcomes, such as attendance, discipline, and number of credits earned. This chapter describes the methods of this mixed-methods study.

Research Method

Johnson and Onwuegbuzie (2004) defined mixed method research as a study in which the researcher "combines quantitative and qualitative research techniques, methods, and approaches, concepts or language into a single study" (p. 17). According to Creswell and Plano Clark (2011), "As a methodology, it involves the philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases in the research process" (p. 5). The choice of mixed methods is appropriate for this study because both qualitative and quantitative data can contribute to an understanding of the effectiveness of graduation

coaches as an intervention for at-risk high school students. At present, little is known about the perceived experiences of individual students who are considered to be at risk of dropping out of high school. Qualitative components to the research have been lacking and could lend more insight into the effectiveness of interventions. Utilizing qualitative methods, student perceptions of their experiences can be described and analyzed. In addition, the quantitative component can provide a concrete understanding of the effectiveness of the intervention in this particular case.

This study used the 13 steps designed to conduct mixed methods research that were delineated by Collins, Onwuegbuzie, and Sutton (2006): (a) determining the goal of the study, (b) formulating the research objective, (c) determining the research/mixing rationale, (d) determining the research/mixing purpose, (e) determining the research question(s), (f) selecting the sample design, (g) selecting the mixed research design, (h) collecting the data, (i) analyzing the data, (j) validating/legitimating the data, (k) interpreting the data, (l) writing the mixed research report, and (m) reformulating the research question(s). The following sections describe certain aspects of that procedure in greater detail.

Location

The Midwest School District included 32 schools that served 19,297 students with 1,392 teachers. At the time of the study, the district had 3 early childhood centers, 20 elementary schools, 6 middle schools, and 3 high schools. This school district had 16 students for every full-time teacher, the state average is 14 students per full-time teacher. This Midwest district is fully accredited.

At the time of the study, the Midwest School District had 3 high schools (Table 2). Within these 3 high schools the district served 5,743 students who attend one of the high schools. The districts college readiness average was 6.3. The college readiness average is based on high school students who have taken AP and IB exams to earn college credit and demonstrate success at college-level course work.

Table 2.

Midwest School District Comparison

	Total Enrollment	Minority Enrollment	Number of Teachers	College Readiness
Washington High	2,258	47%	125	7.2
High School #2	1,436	97%	92	2.2
High School #3	2,049	90%	129	9.7
District	5,743	-----	----	6.3

At the time of the study, Washington High School (a pseudonym) was 1 out of 3 high schools in this Midwest School district. Washington High School served grades 9-12, population 2,258 students, and 125 teachers. The student body makeup was 53% male and 47% female and the total minority enrollment was 47%. The breakdown of ethnicity and gender of the Washington High was as follows: .1% American Indian/Alaskan Native, 2% Asian, 42% Black, 3% Hispanic, 53% White, and .1% Two or More Races (Figure 1).

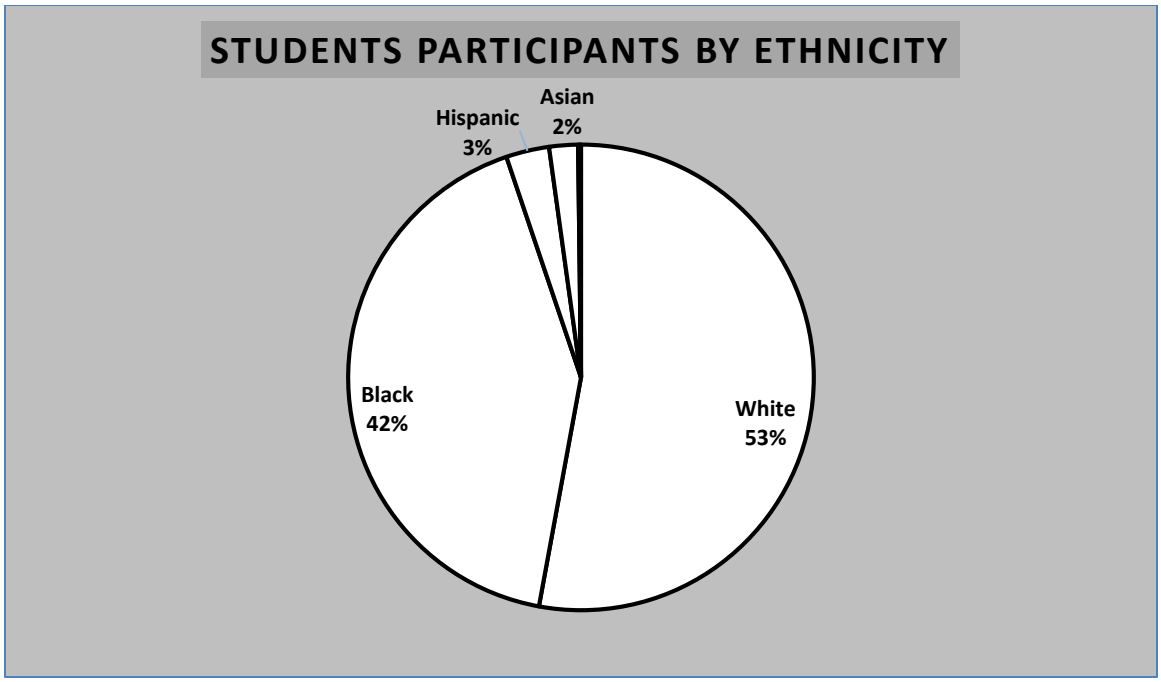

Figure 1. Student participants by ethnicity.

Washington High 46.3% of students were eligible for free or reduced price lunch. The percentage was calculated by diving the number of students eligible for free or reduced price lunch on the last Wednesday of January by the January membership reported in Core Data. Washington High's college readiness score was 7.2. The College Readiness score is based on exam participation rates and percentages of students passing at least one AP and IB exam to earn college credit and demonstrate success at college-level course work.

Research Question and Hypotheses

The qualitative component of this study was guided by one research question: "Did providing at-risk high school students with a graduation coach change their perceptions about graduating high school?" The quantitative component of this study was structured by three hypotheses.

Hypothesis 1

$H1_0$: The attendance rate means are not significantly different from one another.

H1: The attendance rate means are significantly different from one another.

Hypothesis 2

$H2_0$: The discipline referral means are not significantly different from one another.

H2: The discipline referral means are significantly different from one another.

Hypothesis 3

$H3_0$: The means of credit earned are not significantly different from one another.

H3: The means of credit earned are significantly different from one another.

Procedure

The procedure began when Washington High School was contacted by the Missouri Department of Elementary and Secondary Education (MODESE) to participate in developing an intervention for at-risk students in danger of dropping out of school. Washington High School agreed to partner with MODESE to implement an intervention to decrease their dropout rate. MODESE then gave support and training to Washington High School in planning for their dropout intervention. In the previous three years, Washington had increased its dropout rate by 10% each year. The dropout trend caused the administration and staff at Washington High began the conversation about interventions to put in place to address the trend. In the 2011-2012 school year, 108 students out of 455 seniors dropped out from Washington. A team of teachers and administrators met over the summer of 2012 and created Project WALK (Washington Alliance for Learning and Knowledge).

Project WALK focused on increasing the number of credits and hourly attendance rate while decreasing the number of referrals. Five graduation coaches were chosen to work with the 40 students who were identified to participate in the program. Demographically, the students receiving intervention during this study consisted of 26 African American, 12 White, and two Hispanic students. There were 30 males, and 10 females, and there were 20 general education and 20 special education students.

Research Design

The investigator first obtained permission from the Midwestern School District to conduct the study. The application for approval from Midwestern School District can be found in Appendix H. The study was approved by the Lindenwood University IRB (Appendix I)

After receiving IRB approval, the investigator went into Project WALK classes and started recruiting student participants for the study. The script used for recruitment can be found in Appendix A. Student consent paperwork was passed out to potential participants. Fifteen students returned paperwork to participate in the interview portion of the study. The investigator followed the same procedure for recruitment of staff members. The investigator collected informed consent forms from students and staff and began interviews. These forms can be found in Appendix J and K respectively. Before every interview the investigator read a script to the participants. This script can be found in Appendix B. The researcher developed the interview questions starting with the hypothesis.

Research Participants

The participants for this study consisted of secondary students attending Washington High School. During the year of the study, the school enrolled 2,249 students in which 998 students were eligible for free or reduced price lunch. The district, located in the midwest, consisted of 3 early childhood centers, 23 elementary schools, 6 middle schools, and 3 high schools. The study site for the research was one of the district's 3 high schools, Washington High School. This Midwest district was fully accredited at the time of this study. The participants who were selected for the study were 40 10th and 11th graders between the ages of 15 and 17. The students were credit-deficient and chosen to participate in Project WALK. Demographically, the students receiving intervention consisted of 26 African American, 12 White, and 2 Hispanic students. There were 30 males, and 10 females, and there were 20 general education and 20 special education students.

Data Collection

The researcher collected both qualitative and quantitative data for the study. This section will first describe the qualitative data collection procedures (interviewing), and then describe the quantitative data collection procedures.

Qualitative data collection. Interviews are an important qualitative data collection methods. Interviews are helpful in understanding the first-hand experience of the individuals who are participating in the setting. Yin (2003) stated through the interview process, the researchers has two duties: "(a) follow your own line of inquiry, as reflected by your case study protocol, (b) to ask your conversational question in an unbiased manner that also serves the needs of your inquiry" (p. 90). There are drawbacks to doing interviews, Yin explained:

> the interview should always be considered verbal reports only. As such, they are subject to the common problems of bias, poor recall, and poor or inaccurate articulation. Again, a reasonable approach is to corroborate interview data with information from other sources. (p. 92)

There is also caution the interviewer needs to have an interview plan in order to have their questions answered completely. Stake (1995) cautioned:

> It is terribly easy to fail to get the right questions asked, awfully difficult to steer some of the most informative interviewees on to your choice of issues. They have their own. Most people are pleased to be listened to. (p. 130)

The researcher began the interview process by interviewing the administrators and educational leaders of the high school selected for the study. The researcher determined from the administrators' interviews what they believe to be the most effective in assisting at-risk students in their high school (Administrator Interview, Appendix C). The researcher investigated why the administrators had determined the program to be the most effective with their at-risk student population.

After the interviews of administrators were complete, the next step was for the researcher to interview coordinators of the program determined to be the most successful (Program Coordinator Questions, Appendix D). The researcher then interviewed four graduation coaches (Graduation Coaches Questions, Appendix F). The researcher took this information and analyzed the strategies being used in the program, as well as why the coordinators and graduation coaches thought this particular intervention was successful.

The researcher then interviewed 2 student mentors and 15 students participating in Project WALK (Student Consent Form, Appendix J, Student Interview Questions,

Appendix E, Student Mentor Questions, and Appendix G). Through the student interviews the researcher gained the students' perspective of the program and why the students believe the program has assisted them in completion of high school coursework.

The researcher followed an interview protocol in collecting the qualitative data for this study, in order to ensure high-quality and consistent interviews. Stake (1995) explained:

> Qualitative study seldom proceeds as a survey with the same questions asked of each respondent; rather, each interviewee is expected to have had unique experiences, special stories to tell. The qualitative interviewer should arrive with a short list of issue-oriented questions, possibly handing the respondent a copy, indicating there is a concern about completing an agenda. (p. 65)

The researcher audio-taped the interviews to be transcribed later. This allowed the researcher to listen to and absorb the responses given by the interviewees. The researcher wrote notes while interviewing. In addition, the researcher was able to observe the body language and non-verbal communication of the subjects being interviewed. The researcher asked the interviewees to review the transcribed interviews to determine if all interview documentation was correctly transcribed. Furthermore, if through the review of the transcribed interviews, the researcher needed more clarification, the researcher contacted the interviewee to collaborate on the areas in question.

Once the interviews were completed, the investigator then began transcribing the interviews. According to Rossman and Rallis (2003), a researcher maintains the

confidentiality of subjects by concealing identities and roles within the results, not associating any of the participants' names with their stories.

Quantitative data collection. The investigator pulled the following quantitative data about the students: attendance records, disciplinary records, and number of credits earned. The data was imported into an excel sheet scrubbed of students names. According to Creswell (2009) stated, "Quantitative data often involve random sampling, so that each individual has an equal probability of being selected, and the sample can be generalized to the larger population" (p. 217). The student's names were randomly sampled.

Qualitative Data Analysis

Through data analysis and interpretation, the researcher developed meaning from the interview transcripts though the use of coding. Auerbauch and Silverstein (2004) stated, "A theory is a description of the pattern you find in the data" (p. 31). Reviewing interview transcripts can have a number of limitations, however, through the use of coding, Auerbauch and Silverstein (2003) explained, "the coding method is a procedure for organizing the text of the transcripts, and discovering patterns within that organizational structure" (p. 31).

Researchers discover patterns in qualitative data using the analysis technique coding. Miles and Huberman (1994) continued to further explain coding:

> Codes are tags or labels for assigning units of meaning to the descriptive or interferential information compiled during a study. Codes usually are attached to "chunks" of varying size-words, phrases, sentences, or whole paragraphs, connected or unconnected to a specific setting. They can take the form of a

straightforward category label or a more complex one (e.g., a metaphor). (p. 56)

Auerbauch and Silverstein (2003) discussed decoding, “The first issue is that you are likely to think that everything is important. You will be afraid to choose any one thing to focus on, because you will be worried about leaving something out” (p. 32). It was important for the researcher to remember that the analysis and interpretation is only one of several ways the data is interpreted.

In this study, the researcher analyzed and interpreted the qualitative data and determined how it related to and/or answer the research questions. The researcher analyzed each set of interviews separately using the following steps that were used to complete the analysis. First the researcher wrote down each sub-question of the study on a separate piece of paper. Next the researcher read the transcripts carefully noting information from the interview that responded to the question of the study. The researcher then studied the interview responses and looked for themes based on the patterns emerging from the responses. The researcher then analyzed the chunks of information and separated the chunks by noting to which item the response corresponded. Finally the researcher identified a theme and sorted the responses related with the found themes. Once all interviews were analyzed, the researcher cross-checked the information for common themes and categories among the different groups that were interviewed.

Themes were determined based on the overall repetitive nature of the responses. Categories under each theme were determined by the frequency of the response to the question. In addition, the purpose of the study was considered in determining the balance between analysis and interpretation of the data. Walcott (2009) stated:

A clear statement of the purpose is critical for deciding what data need to be

> reported, what needs to be counted, what relevant literatures to cite of measures to use, and how broadly to draw implications or recommendations from one's research. (p. 30)

Quantitative Data Analysis

After pulling the quantitative data about the students (attendance records, disciplinary records, and number of credits earned), the investigator analyzed the data statistically. The percentages of students' hourly attendance were compared before the 2011-2012 school year and after being paired with a graduation coach. The investigator performed a *z*-test for difference in proportions, which tested for a statistically significant difference between students' attendance before and after being paired with a coach. The researcher conducted a *z*-test for the difference of means for the number of discipline referrals and the number of credits earned.

Summary

This mixed methods study sought to understand the effectiveness of a specific intervention for at-risk high school students, the assignment of personal graduation coaches. This study investigated the factors that enable faculty and staff of a high school to help students achieve student success despite many factors in which students are labeled at-risk. Through this study the investigator sought to find what is effective and what is not effective with the strategies the graduation coach is using as an intervention working with at-risk youth.

Chapter Four reports the findings of this research. Finally, Chapter Five presents a discussion of the findings, which will include interpretations, implications, and potential applications for the results, and recommendations for future research.

Chapter Four: Results

The purpose of this study was to determine whether graduation coaches had an impact on students' attendance, discipline, and number of credits earned, as well as on the perception of whether the coaches had an impact on the students. Chapter Four begins with the results of the qualitative data analysis, which investigated the perceptions of the students, coaches, administrators, and program coordinators of the intervention program. Then, it presents a report on the analysis of the quantitative data that were collected; the analysis will show in numerical terms the success of the graduation coach intervention and the effect of the coaches on the student participants in three domains, attendance, discipline, and credits earned.

Qualitative Results

This study's research question concerned the qualitative data that the researcher gathered: Does providing high school at-risk students with a graduation coach change their perception about obtaining a high school diploma? This section summarized the interviews of students, graduation coaches, coordinators, and principals. Two main themes emerged during the interviews with students, graduation coaches, coordinators, assistant principals, and the principal: building relationships and building confidence.

Building relationships. The most common theme that emerged from the qualitative data was building relationships. One of Project WALK's student mentors created a video entitled, "What is so special about my school?" He answered this question by stating, "Before I can start talking about how great our sports program [is] or how many competitions our clubs have won, let's look at a few numbers: 4.2% dropout rate, 19% of students not graduating in MO, and the football team is not saying that,

Project WALK provides relationship building experience that can change the lives of those 4.2 and 19 percenters." He went on to say that graduation coaches care enough to keep students motivated in school. He ended by stating, "I've seen statistics drop and more of my peers walk, and that is more sacred than I could experience in any high school."

The principal of Washington stated:

> Unfortunately a lot of times students on the verge of dropping out don't have relationships at school that make them want to come to school. The key to helping build those relationships that make them want to come to school is to find that trump card in every single child. We have to find that one thing that makes them want to come to school.

The "Trump Card" was mentioned several times by students and adults interviewed. Project WALK has defined the term as the one aspect of school that is most important to you that keeps you motivated to do well. The trump card is a symbol to encourage students to make it through adversity. An assistant principal stated, "For some students, their trump card is a sport or a club, for others their trump card is that one teacher who is always there for them and never gives up on them." Students gave varied responses when asked about their trump card. A student from Project WALK stated, "My trump card is graduation. Finishing school is important because jobs do not take GEDs anymore and if you want to go to college you have to have a high school diploma."

One graduation coach, reflecting on what she felt was the most productive thing she did as a coach, stated:

> Relationship building is the key, if a student trust you then they know they can come to you. I do that with all my kids, but especially with these at-risk kids, they may not have that support at home or they may not have those supports in the building. I think it is important that they have those cheering them on and letting them know that it is not hopeless and someone is on their side. It's the tough love also once they know you are there for them and you're that person they can trust, then you can tell them hey you need to step up and this is what you need to do, and you will do it. It kinda helps because once you have that relationship you can be a little more forceful if they didn't trust you.

The students interviewed all mentioned some type of relationship they had with their graduation coach. One student mentioned, "My graduation coach is very understanding and supportive. He will sit down and explain everything. I like the fact that he basically understands and cares." Another student stated, "My coach can push me and I won't get angry about it, because I know they are doing what is best for me and it is what I need to do." Another said, "I am now motivated to come to school. I used to miss three days out of week, now if I miss a day I know my graduation coach is going to call me, or show up at my house." The graduation coaches found out early in their role that building rapport with students was key in making a breakthrough with these at-risk students.

A student who moved to another school stated:

> My graduation coach was my support and would help me with my work. He would get me caught up but now it's harder because I don't have anyone looking out for me or staying on me about my work. I don't really have a strong

> connection with anyone there, so if I don't do my work it doesn't really get noticed.
>
> An assistant principal stated:
>
> This type of work is draining, and often you don't see immediate success. The graduation coaches have worked through their planning periods, lunches, gone on home visits, kept in contact with teachers on a weekly basis and keep in communication with parents. They did all of this while balancing their regular teaching loads and the needs of students in their core classes.

When the students were asked, "What is something about Project WALK that has been the most helpful this year?" Several responded, "I know someone cares about me."

Building confidence. The graduation coaches spent time building confidence in students. The graduation coaches met regularly to discuss strategies in which they were using with students. One of the most frustrating situations for coaches was when seemingly capable students would not finish simple assignments. Coaches discussed some of the following strategies that worked toward building confidence: acknowledge students' accomplishments privately and in front of the group, allowing students to be independent so they can feel their own strengths and abilities grow, and expressing a positive attitude toward students so they see that they are worth the time and attention are a few of the items coaches would discuss on building confidence.

One of the coaches talked about the beginning of the year working with the students. She stated, "You have to have patience, tenacity, in the sense that you have to be willing to go out and track these kids down, continually getting their work for them, while teaching them self-advocacy skills." The students commented often about how

their graduation coaches helped them to build confidence. Their statements included the following: “She helps you set goals and achieve them,” “she makes me work harder,” and “she helped me in many ways, more than I can explain. She has pushed me harder than any other time while I have been in school.” Graduation coaches have created a foundation, which Kanter (2006) spoke of in her book, to push the students to that next level of achievement.

Graduation coaches spoke about the need for increasing the number of coaches. One coach stated that, if not for the work of coaches,

> We would lose a lot of students who would give up. I felt like we didn’t have options for students once they get behind. We needed people working with them and targeting those kids so they didn’t feel like it was hopeless.

One of the students in the program stated,

> I couldn’t get out of it. I knew if I didn’t come to class they would come find me. After starting the program, I learned there were people looking out for me. I wasn’t just here on my own.

Quantitative Results

Attendance. A student’s attendance rate was defined as the percentages of the student’s hourly attendance before and after being paired with a graduation coach. The *z* test for difference in proportions allowed the researcher to determine whether the differences between students’ attendance were statistically significant before and after being paired with a coach. The researcher proposed the following null and alternate hypotheses:

$H1_0$: The attendance rate means are not significantly different from one another.

H1: The attendance rate means are significantly different from one another.

After calculating the average attendance rates for the participants, the researcher conducted a *z*-test for difference in proportions. Table 3 illustrates the results of a Z-Test for proportions that was performed to determine the attendance comparison.

Table 3.

Attendance Comparison: z-Test for Difference in Proportions Results

Statistical Test	Result
Hypothesized Mean Difference	0
z	-.22597
Alpha	0.05
Z Critical one-tail	1.65

The overall proportion for students who were in attendance was 87% before being paired with a graduation coach and 85% after being paired. The *z*-test value was -.22597, which is less than the critical value of 1.65. The researcher did not support the claim that there will be an improvement in attendance. The researcher did not reject the null that there is no statistically significant difference. The H1 was rejected because a difference was not found. The ending attendance rate is observably lower than the beginning attendance rate, but this is not a statistically significant difference.

Discipline. The *z*-test for the difference of means allowed the researcher to determine the differences between students' number of discipline referrals. The research proposed the following null and alternate hypotheses:

$H2_0$: The discipline referral means are not significantly different from one another.

H2: The discipline referral means are significantly different from one another.

The researcher conducted a z-test for the difference of means between the variables using a hypothesized mean difference of zero. Since the z value of -1.091 is less than the critical value of 1.95, the z value did not fall into the critical region on the normal bell curve and therefore the researcher did not reject the null hypothesis. Table 4 illustrates the Z-test for Difference in means results for the discipline comparison.

Table 4.

Discipline Comparison: z-Test for Difference in Means Results

Statistical Test	Result
Hypothesized Mean Difference	0
z	-1.091
Alpha	0.05
Z Critical one-tail	1.95

There was not a statistically significant difference in students' discipline within a year's time with the graduation coach. Although there was an observable drop in discipline in the means of the participants, it was not a statistically significant difference.

Credits earned. The *z*-test for difference of means allowed the researcher to determine whether the difference between students' number of credits were statistically significant before and after being paired with a graduation coach. The researcher proposed the following null and alternate hypotheses:

$H3_0$: The means of credit earned are not significantly different from one another.

H3: The means of credit earned are significantly different from one another.

The researcher conducted a z-test for the difference of means between the variables using a hypothesized mean difference of zero. Table 5 reflects the first comparison of students' number of credits before being paired with a graduation coach.

Table 5.

Credits Earned Comparison: z-Test for Difference in Means Results

Statistical Test	Result
Hypothesized Mean Difference	0
z	2.59
Alpha	0.05
Z Critical one-tail	1.64

Because the *z* value of 2.59 is greater than the critical value of 1.64, the z value falls into the critical region on the normal bell curve. Therefore, the researcher rejected the null hypothesis that there was not a difference in students' credits earned while paired with a graduation coach. Furthermore, the researcher supported the alternative hypothesis that there was a statistically significant difference in students' number of credits earned once paired with a graduation coach. Students paired with a graduation coach improved the number of credits earned compared with the previous year, when they were not paired with a graduation coach.

Summary

The data in Chapter Four provided evidence that there were observable differences in attendance and discipline and a significant statistical difference in the number of credits earned by students who were paired with a graduation coach. The

qualitative data showed that positive relationships formed with the graduation coaches. One student stated:

> Washington High School is trying to help students make a change, but most of the students don't want to, honestly. It will do you right. It makes you want to succeed in life, it makes you want to be a respectfully person. Someone is there if you really need help you it is up to you if you receive it. Like I said, life is honestly what you make it. It could be positive or negative.

In short, Project WALK not only helped the students find their trump card, it gave them the motivation to come to school. The students have made positive meaningful relationships with adults whom they know care about them. Washington High saw an increase in overall attendance and grades and a decrease in discipline. A graduation coach stated:

> I am very proud of what we have done here in one year. It has really helped the kids. One of the kids moved to another school. It broke my heart, he called and said that they don't have this [graduation coaches] here. And now he feels like it is hopeless again. Some of these kids see the light at the end of the tunnel and they don't think they can do it. It is giving the opportunities they didn't have before. It is not easy, but I love working with these kids, and I think we are doing good things.

Another graduation coach reflects on the year journey with a student:

> We developed a strong relationship on trust, he had a bad day and he refused to work and that happens, but I think the trick with this you have to hold them accountable but you have to give them wiggle room. It is a fine line if you

> sometimes you think they want you to back off, but I don't think they really want you to back off. I fought with a student sometimes he would get agitated and finally work and sometimes he didn't. This student is going to pass more classes this semester than he has passed any other semester since he has been in high school.

Washington High is continuing to search for interventions to help students be successful in their journey in obtaining a diploma. In considering the effort to eliminate all dropouts, one student mentor stated, "It's going to take time to get to that zero percent, but we are pushing; every child had to crawl before they could walk." The final chapter will discuss the implications and limitations of the study, relate the results to the literature reviewed in Chapter Two, and present the recommendations based on the above findings.

Chapter Five: Discussion and Reflection

At-risk students need assistance and support to become engaged in their school experiences and improve their chances of persisting to graduation. This study explored the use of graduation coaches as an intervention for at-risk students at Washington High School. The purpose of the study was to investigate at-risk students' experiences of being paired with a graduation coach, as well as to determine through quantitative analysis what effect, if any, the intervention had on the students' attendance, discipline referrals, and credits earned. This glimpse into an intervention at one high school in Missouri may help educators and policymakers identify strategies that are effective and can be used in other settings to support at-risk high school students as they pursue their high school diplomas. In this final chapter, the researcher presents conclusions based on the study's findings, relates the findings to the literature discussed in Chapter Two, and discusses how these findings can impact the design of future interventions that have similar goals. This chapter will also provide recommendations for future research.

Answering the Research Question

The qualitative component of this study was guided by one research question: Did providing at-risk high school students with a graduation coach change their perceptions about graduating high school? The researcher gathered qualitative data by conducting interviews with students and graduation coaches. In the coding process, two key themes emerged.

Theme 1. Building Relationships. The interview data indicated that students and graduation coaches both felt that the coaches built an emotionally supportive climate of high, but feasible, expectations for these at-risk students. One graduation coach stated:

> These kids felt they were being ignored and no one cared. Adults would tell them they needed to try harder, but that would be the extent of that. You have the school devoting teacher resources to kids that have not felt this before, I think if you asked them, they would say someone cares about me.

The coaches attempted to fuel positive expectations to further strengthen the cycle of success for these students. The coaches attempted to form ingrained practice to embed these traditions in the culture at Washington High School to continue to forge close bonds with students and help them in their pursuit of success. The graduation coaches took the time to build a foundation of confidence by building trust and identifying the talents in each student. Kanter (2006) stated, "At the beginning of every winning streak, leaders have created a foundation for confidence that permits unexpected people to achieve at high levels of performance" (p. 29).

Two of Quint's (2006) five critical challenges facing high school reformers today are directly about relationships: "(a) creating a personalized and orderly learning environment, and (b) assisting students who enter high school with poor academic skills" (p. iii). The second aspect of personalization relates to knowing and being known as an individual within the school community. Quint reported in 2006 that during the second half of the 20th century, as traditional social bonds in communities were weakening, high schools themselves were getting bigger and bigger, based on the recommendations of Conant's "The American High School" (as cited in Quint, 2006, p. iii). For those

adolescents who already have weak family community connections, the enormous schools become places of anonymity that encourage them to withdraw further into the shadows, and make them more vulnerable to the allure of negative peer reinforcements such as drugs, alcohol, sex, and crime" (ACTE, 2006, p. 12).

Theme 2. Building Confidence. A second theme that emerged from the interview data was that the intervention built students' confidence. This finding is in keeping with Quint (2006) who argued that confidence building is needed as an antidote to high-stakes testing because the gap is widening between strong and weak students. Quint (2006) discussed,

> Intellectually, 12-14 year olds experience a plateau in brain development. The students' attention span begins to grow and he or she believes the need to progress further and to gain more intellectual competence. The student compares themselves intellectually to their peers. At this time, the gap widens between high-achieving students and students in need of assistance. (p. 32)

Beck (n.d.), further supports the finding by stating, "This group of individuals need to learn decision-making through experience rather than someone telling them which way to do things to achieve the best outcome. This concept is often a challenging one for adults to realize and accept" (p. 2).

The emerging theme, confidence building, aligns with Pruit (1999), who found that identity formation occurs as the adolescent is beginning to develop an organized system of establishing identity, autonomy, and intimacy—as the adolescent is becoming comfortable with sexuality and realizing his or her potential for personal achievement. Pruitt (1999) would agree that older adolescents, after surviving this formative time,

begin to work on establishing their identity to build confidence. They begin to ask themselves, "Who am I" Pruitt (1999).

Addressing the Hypotheses

Through the collection and analysis of quantitative data, the researcher was able to determine whether each of the hypotheses was supported by the findings.

Hypothesis 1

H_0: The attendance rate means are not significantly different from one another.

H1: The attendance rate means are significantly different from one another.

The null hypothesis was not rejected—the attendance rate means were not significantly different from one another. In other words, there was no significant difference between the attendance rate after the participants began working with a coach. Though the relationship (emerging theme 1) between the graduation coach and the student was reported as positive by both the student and the coach, an observable, but not statistically significant, decrease in average attendance occurred.

The primary goal of Check & Connect program review in chapter two is to keep students engaged in school by promoting the necessity of regular attendance in an effort to decrease the chances of school failure (Lehr et al., 2004). Absenteeism is often cited in the literature as one of the leading risk factors used to determine which students are at-risk of dropping out of school (Suh et al., 2007). Consequently, it is important to look at intervention strategies and programs that focus on this particular risk factor. The Check & Connect program is one of the intervention programs designed to reduce the number of absences. Perhaps the study school would benefit from a program like Check & Connect.

Hypothesis 2

$H2_0$: The discipline referral means are not significantly different from one another.

H2: The discipline referral means are significantly different from one another. Students need independence.

The null hypothesis was not rejected. In other words, though there was a visible difference (lower number) in discipline referrals as a result of having a graduation coach, the difference was not statistically significant. Recall from Chapter Two that in addition to the sense of belonging, students must also develop a sense of independence. Even though this seems contradictory, adolescents will not be able to move forward intellectually, socially and emotionally if they think they have no control over their destiny. If they believe they are being controlled by adults, they will eventually develop self-destructive behaviors, loss of their sense of who they are and where they are going, and eventually lose their motivation for developing into an adult who contributes to society. Therefore, a drop, though not significant, in discipline referrals among those students with graduation coaches (with whom they had a relationship) is in keeping with Quint (2006) who supported relationship building between students and teachers by "creating a personalized . . . learning environment" (p. iii). In other words, the coaches personalized the learning environment for the students.

The graduation coaches developed relationships with these students. Through these relationships they built, students did not want to disappoint their graduation coach or student mentor. Behavior started changing when they realized someone cared and was

depended on them being successful in school. The graduation coaches were able to get to the root of the problem and students begin to act out less and stop skipping classes.

Hypothesis 3

$H3_0$: The means of credit earned are not significantly different from one another

H3: The means of credit earned are significantly different from one another

The null hypothesis was rejected. In other words, the mean credit earned was significantly more for those with a graduation coach than those without. Recall from Chapter Two that Quint (2006) suggested that to assist students who are low performing, some high schools established the blocked schedule where classes meet for extended periods and allow students to attempt and to earn more credits per year; and provide opportunities for semester, catch-up courses in reading and math for student success in the regular curriculum areas and accumulate credits in areas needed for graduation. Finally, with a structured curriculum, similar to the catch-up courses, students tend to spend more time engaged in the task at hand. Combine these with the skill development strategies that are taught in a freshman seminar, most students are armed with strategies that will help them to be successful in their academic pursuits.

The graduation coaches worked consistently with students on completing class work. Before graduation coaches, students were not bugged consistently to finish class work— either they finished it or they did not. Graduation coaches worked hard to get uncompleted work from teachers and worked with students on completing it. Eventually graduation coaches no longer had to be the one to get the work form teachers, students began to take charge of their learning and completed their work on time.

Implications for Practice

The study found several strategies graduation coaches were using that showed statistically significant improvement in credits earned and an observable decrease in discipline referrals for at-risk students as they pursued their high school diploma. The attendance rate actually declined but not to a statistically significant level. In one year, Washington High's graduation coaches made a little extra effort to let these students know someone cared and made positive differences in these students' lives as they continued their pursuit of obtaining a high school diploma. Kanter (2006) stated, "Success provides the resources, the pride, enthusiasm that make it easier to succeed the next time-that build confidence" (p. 159). The three effective techniques that the graduation coaches at Washington High School incorporated into their interventions with at-risk students were mentoring, monitoring of student progress, and communication. Below are further details on the intervention program of the graduation coaches who worked with the students during the 2012-2013 school year.

Mentoring. Project WALK utilized two types of mentoring: one-to-one mentoring and peer mentoring. The one-to-one mentoring took place with the graduation coach and student. They met regularly at least every other day. The graduation coaches addressed several items when meeting with students: grades, attendance, and any concerns from the students preventing them to being successful in school. The second type of mentoring used by Project WALK was peer mentoring. Peer mentoring provided the opportunity to develop a guiding and teaching relationship with peers. The peer mentors were chosen by the graduation coaches, closely supervised, and given ongoing support. In the peer mentoring relationship, the mentor and the mentee met frequently

over the course of the entire school year. Student mentors were juniors and seniors who are involved in several activities in the school. They had good grades and could help students, but they also were not teachers. These mentors provided the students with a good role model, who was successful in school and participated in school activities. Peer mentoring continued outside of the classroom as well. The mentors attempted to get the students involved in school activities. If they saw the students in the hallways, they would make sure they were getting to class on time and staying out of trouble. Peer mentoring gave these students connections throughout the building, someone their age who was invested in their success.

Monitoring of student progress. The graduation coaches monitored students' progress weekly with follow-up and individual interventions. Graduation coaches talked with the students often about the importance of having a high school diploma and the academic path they would need to follow to reach that goal. Students would go to their graduation coaches to seek help outside of the time designated to seek help with academics. A graduation coach stated:

> I think they are caring more about their grades. The first thing when entering our time together is, 'Can we look at our grades?' I know they are paying attention to it, and I am paying attention too, so they know someone is looking at it. When I need to tell them to step it up, I tell them.

Safer and Fleischman (2005) stated, "Research has demonstrated that when teachers use student progress monitoring, students learn more, teacher decision making improves, and students become more aware of their own performance" (p. 81). A significant body of research conducted over the past 30 years has shown this method to be a reliable and a

valid predictor of subsequent performance on a variety of outcome measures, and thus useful for a wide range of instruction decisions (Deno, 2003; Fuchs, Deno, & Mirkin, 1984). Graduation coaches found monitoring student progress was an effective tool in supporting students.

Communication practices. The graduation coaches at Washington High clearly valued communication with parents, teachers, support staff, and administrators. The coaches established meaningful, direct, two-way communication with the parents of these students. Graduation coaches were creative and innovative in creating communications with all stakeholders. If students did not show up to school, graduation coaches would make a home visit to check on the students. An administrator at the school reflected on a conversation they had with a parent, "When I called parents in August to tell them about the intervention and we wanted their child to participate, one parent cried because they knew their child was struggling and they had not been contacted by the school before." This communication provided graduation coaches with information about their students to make more accurate decisions helping the students.

Implications for School Systems

The results of this study suggest two implications for schools, identifying at-risk students and changes to school-wide curriculum.

Identifying at-risk students. It is important for schools to create some type of early warning system to identify at-risk students. As discussed in this study there are several types of at-risk students, some more obvious than others. Beauvais, Chavez, Oetting, Deffenbacher, and Cornell (1996) stated that "if effective preventive and remedial strategies are to be developed, risk factors for and problems associated with

dropping out of school must be mapped empirically" (p. 292). If the school officials system creates a good predictor of students who are at-risk, the officials can put promising interventions, such as graduation coaches in place.

School-wide curriculum. The renowned African American author, Ralph Ellison (1952) said,

> If you can show me how I can cling to that which is real to me, while teaching me a way into the larger society, then I will not only drop my defenses and my hostility, but I will sing your praises and help you make the desert bear fruit. (p. 32)

This study showed graduation coaches using strategies that can easily be integrated into a school-wide curriculum. The single largest factor affecting the academic growth of students is the differences in the effectiveness of individual classroom teachers (Tennessee Value-Added Assessment System, Sanders, 1998).

Recommendations for Future Study

Preventing students from dropping out is a chronic and deep-rooted challenge, and educators must continue to research best practices for addressing the issue. Based on the findings of the current study and the limitations to which it was subject, the researcher has several recommendations for future research. While this study examined the perspectives of at-risk students and those who worked closely with them, future studies could investigate specific factors that might affect at-risk students, such as school climate and the availability of vocational programs.

The researcher also suggests that all stakeholders might address the dropout issue with greater clarity by developing a better understanding of the factors that have the

greatest impact on dropout rates so that they can determine where to focus efforts to reduce dropout rates. Only then can optimal intervention strategies be designed to help reduce the risk of students dropping out of high school.

Research has found that schools that have collaborative or trusting cultures are more likely to show signs of improvement and innovation (Bryk & Schneider, 2002). The relationships between students and coaches in the implementation had sustainable complex change. When students feel that they are valued and cared for as individuals, they are more compliant. Boynton and Boynton (2005) stated, "The most powerful weapon available to secondary teachers who want to foster a favorable learning climate is a positive relationship with our students" (p. 6). The students in this study expressed that after being paired with a graduation coach, they felt as though someone cared about them. This was the key to improving the perception of their graduation chances with these at-risk students. Furthermore, because the variables chosen for the study were also the focus of intervention programs outlined in the review of literature, some of the programs reviewed are appropriate as recommendations for schools and systems who are in pursuit of strategies to increase their graduation rates.

Conclusion

This study was designed to investigate the use of graduation coaches and discover whether their interventions had an impact on attendance, discipline, and number of credits earned. The Vermont Agency of Human Services (1999) stated, "Dropping out of school severely impairs a young person's job prospects and earning potential, in turn causes other secondary, indirect problems" (p. 120). High school dropouts are more likely to receive public assistance, have increased reliance on public assistance due to

single parenting, and make up a disproportionate percentage of the nation's prison and death row inmates (Vermont Agency Human Services, 1999). Schools, parents, community members, administrators, school system personnel, and local state and federal government agencies will have to join forces in a collaborative manner if they ever hope to improve the graduation rate by lowering the dropout rate.

As a result of conducting this mixed methods study, its findings can be used to create effective intervention strategies to reduce the number of students dropping out of high school. Zvoch (2006) stated, "Determining the best methods of addressing the issue of underperforming at-risk high school students was an integral component essential to improving graduation rates" (p. 95). By developing a better understanding of which variables have the greatest impact on current dropout rates, schools will have the requisite information necessary to prioritize intervention efforts and, ultimately combat this most perplexing issue. As the United States becomes part of a more global society, it is more imperative now than ever before to make sure that students have the tools necessary to compete in the workforce of the 21st century.

The dropout crisis is real, and it affects the futures of our students every day. However, research shows that schools need not wait until students have already dropped out or are in the imminent danger of dropping out. Instead, schools and teachers can intentionally develop key traits and skills in students to provide protection against circumstances that would otherwise be associated with dropping out. Providing this knowledge in an environment rich with trusting and supportive adult–student relationships can mean the difference between dropping out and completing high school, which means making very real differences in the lives of children.

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Appendix A

Script to Request Study Participation

The researcher will go to the student's academic seminar classes (Project WALK classes) and proceed with the following script:

My name is Ms. Dunnavant. I am a graduate student at Lindenwood University and an Assistant Principal here at Washington High School. I am currently working on a study in which I want to gain your opinions and insights on Project WALK.

Your participation would include an interview, which will take place during one of your academic seminar classes. The interview will be audio taped asking you questions about your experiences in Project WALK, your graduation coach, and your overall school experiences. Everything you say will be completely confidential. You will not be identified in the study in any way. If at any time you are uncomfortable with the questions or the situation, you may stop the interview.

For your participation in the study I will need parent consent. I will now pass out the informed consent permission slips to have your parents sign, if you chose to participate in the study. If you do choose to participate, please return the signed permission slips to me.

Thank you so much for your time and hope you will choose to participate.

Appendix B

Script Before Interview

Thank you for volunteering to participate in my study. I want to remind you that all results will be entirely confidential and your responses to the questions will remain anonymous. All data will be secure and will be accessible only to myself. Data will be analyzed in terms of the group findings, not individual findings. The group results will be used to determine what types of programs are most successful with students who are struggling to complete their high school diploma coursework.

At any time you would like to stop the interview or not answer a question, just let me know.

Appendix C

Interview Questions for High School Administrators

1. How do you determine when a student is at-risk of not graduating from high school?
2. What is the first step of assistance for students who are determined to be at-risk?
3. Please describe the continuum of services provided for students who are determined to be at-risk.
4. Which program in the continuum of services that you provide at-risk students do you feel is most successful? Why?
5. What facets of the program that you feel are most successful are most important to the students? Please describe. What constitutes successful? How do you determine success?
6. What do you feel is the most important component of a program for at-risk students?
7. What components of an at-risk program do you think students will identify as an important factor in their success?

Appendix D

Interview Questions for Program Coordinator

1. What is your definition of an at-risk student?
2. Why did you choose to work with students who are having difficulty with high school?
3. What attributes/skills/techniques do you possess that help you to be successful with at-risk students?
4. What determines whether you have been successful with an at-risk student?
5. What do you think is the most important quality to have when working with at-risk students?
6. What makes your program different from the regular academic seminar?
7. Do you think students are successful in your program? Why/or why not?
8. To what do you think students would attribute their success?
9. What do you think students would say are the most important aspects of the program that you provide from them?
10. What do you notice about your students' ability to set goals?
11. Why do some kids disengage from school?
12. Please share a success story.
13. Can you think of a teacher who has a significant and positive impact on students?

Explain.

Appendix E

Interview Questions for Students

1. Describe your typical day for me.
2. If you were to say that a particular adult understands, you describe what that means.
3. Do you consider yourself at-risk of not graduating from high school? What does the term at-risk student mean to you?
4. You have been labeled at-risk because of the combination of at least two of the following; attendance, age, number of credits, office referrals, or GPA. Does this label of at-risk bother or offend you?
5. What do you like the most about having a graduation coach?
6. Do you think you are succeeding in this program? Why/why not?
7. What has been the most difficult thing that has happened this school year?
8. Is there something the school can do to make school easier for you? If so, what?
9. Have you tried other at risk programs? Were those programs successful for you? Why/why not?
10. If you were to talk about one aspect of Project Walk that makes you want to come to school every day, what would you say that is?
11. Can you think of a teacher at school who has a significant and positive impact on you?
12. Has anyone in your family dropped out of high school? Have you ever considered dropping out of school?

13. Is it important that you finish school?

14. Do feel confident going to class every day?

15. Do you feel confident participating in class discussions?

16. Can you tell me a success for you this year?

Appendix F

Interview Questions for Graduation Coach

1. When some students enter Project WALK they are considered at-risk of not being successful, including the possibility that they may not graduate. What is your definition of at-risk?
2. As a high school teacher, what is your relationship to Project Walk? Please explain.
3. Do you believe that Project WALK is successful in helping at-risk students achieve academically? Please explain.
4. Do you believe that participation in Project Walk increases the likelihood that at-risk students will graduation from Washington High School? Please explain.
5. If you could change any aspect of Project Walk to improve its effectiveness with students, what would that be? Please explain.
6. Can you share a success story?

Appendix G

Interview Questions for Student Mentors

1. How did you become involved with Project WALK?
2. What is your definition of at-risk?
3. What is your role in the Project WALK classroom?
4. Do you believe that Project WALK is successful in helping at-risk students achieve academically? Please explain.
5. Can you think of a teacher at school who has a significant and positive impact on you?
6. Has anyone in your family dropped out of high school? Have you ever considered dropping out of school?
7. Is it important that you finish school?
8. Can you share a success story this year?

Appendix H

Midwestern School District application to Perform Research

APPLICATION to PERFORM RESEARCH

I. **Name of Primary Investigator** Heather Dunnavant
Position Assistant Principal Affiliation Midwestern School District
Names of additional members of research team:
Name N/A Phone N/A

II. **Project Title** The Road to Graduation: Supporting At-Risk High School Student
Description High school administration and staff are continuously trying to find ways to assist at-risk students who are struggling in school. The purpose of this qualitative study is to explore interventions such as the use of graduation coaches and other strategies to support high school students. The research question will address whether providing high school at-risk students with a graduation coach changes their perception about obtaining a high school diploma.
Note: Please attach copies of any measures to be used (e.g. test, questionnaires, surveys, etc.)

III. **Participant Involvement**

Number of Subjects	Time Requirements
Pupils: 10-20	25-30 minutes
Teachers: 3	25-30 minutes
Administrators: 1	25-30 minutes
Parents: 0	N/A

Describe the involvement required of subjects (or access to records if subjects are not required).

The subjects will participate in an interview after receiving parent permission.

If applicable, describe any district archived data you will need.

District data needed is student's attendance, number of credits, and GPA. The researcher is looking if there is a correlation with being assigned a graduation coach and if it improves attendance, number of credits, and GPA.

Number of person visiting sites in connection with project: I am the sole researcher on this study.

Frequency of visits during a school year: Students will only be interviewed once.

Total contact hours of the project: 7-8 hours of interview time.

IV. Project Requirements

Number and type of school:

Early Childhood Education (birth to kindergarten) 0

Elementary (K-5) 0	Middle School (6-8) 0	High school (9-12) 1
Adult Basic Education 0	Other 0	Grades required 9^{th}-11^{th}
Total number of schools 1	Total number of classrooms 6	

Other school characteristics: Students will be interviewed during their academic seminar class which is also where the Project WALK (Washington Alliance for Learning and Knowledge) intervention is being implemented.

Do you require any specific schools? Yes. If yes, please provide building names: Washington High School

Start date of research: Upon approval from Midwestern School District
End Date of research: September 2013

Frequency of contact with subject(s): One interview per subject.

V. Results

What is the anticipated value of the research?

In general:

The purpose of this study is to identify interventions to assist students who are at-risk of not graduation from high school. Students drop out of school for many reasons, some external to school and some education-related. As a result, it is difficult to predict which students will drop out. Since there have not been rigorous evaluation of dropout prevention and recovery programs, there is no hard evidence yet that points to the best programs and practices that will reduce the dropout rate. This study will focus on the use of graduation coaches and the perceptions at-risk high school students have on obtaining a high school diploma.

To the Midwestern School District:

This study will provide the district with qualitative data showing student perceptions on graduation coaches and the correlation with obtaining a high school diploma.

VI. Dissemination

How will the results of your study be used? Will they be available to the public in any form? If so, what groups will have access to the results? Will the Midwestern School District, or any individuals within Midwestern School District, be identified in your reports? Please explain.

The results of my study will be used to improve the interventions used with at-risk students at Washington High school. This study will be published by Lindenwood University. Midwestern School District, or individuals within Midwestern school district will not be identified in the report of the study.

VII. References (You may omit names if you have promised confidentiality.)

Are other school systems involved in this research? No

Please List_____

Have you conducted research in other school systems? No

Please Name_____

Date(s)_____

VIII. Human Subjects' Protection

Has this research been approved by a university or other institutional review for protection of human subjects?

Yes No X

If yes, please indicate which institution or, specific person reviewed the proposal and when?

If no, please explain why this proposal has not been reviewed form protection of human subjects:

This study has been submitted to Lindenwood University for approval. I want to gain permission from the district to make sure the study can be done.

Note: All researchers who plan to collect information form or about individual students should attach copies of the proposed consent forms and a brief description of planned procedures for obtaining informed consent. Research involving individual students may require the informed consent and signed agreement of parents or legal guardians.

Appendix I

Lindenwood Application for IRB

LINDENWOOD

Application of Review
Research Proposal Involving Human Subjects

If you have any questions about whether you need to complete a full or expedited application, please review the expedited application criteria at http://www.lindenwood.edu/academics/irb/ .

Proposal #1

1. Title of Project: High School Graduation Coaches: Supporting At-Risk High School Students

2. List the names of all primary investigators/faculty advisors and their contact information in the table below.

Name	Email	Phone Number	Department	Student/Faculty
Heather Dunnavant	hed176@lionmail.lindenwood.edu	615-504-8806	School of Education	Student
John Long	jlong@lindenwood.edu	636-949-4575	School of Education	Faculty/ Committee Member
Beth Kania-Gosche	Bkania-gosche@lindenwood.edu	636-949-4575	School of Education	Faculty/ Committee Member
Ingrid Clark-Jackson	icljcksn@midwesternschool.org	314-280-6353	Midwestern School District	Committee Member

4. Anticipated starting date for this project: Upon IRB Approval Anticipated ending date: September 2013
(Collection of *primary* data – data you collect yourself - cannot begin without IRB approval. Completion/Amendment form required yearly, even if stated anticipated ending date is more than one year in the future.)

5. Please define any terms that may be unfamiliar to the reader.

At-Risk Students- Those students who exhibit academic, behavioral, or attitudinal problems that lead to dropping out of school. (Janosz, Blanc, Boulerice, & Tremblay, 2000).

Dropout- Any student who leaves school for any reason before graduation or completion of a program of studies (Owen, Rosch, Muschkin, Alexander, & Wyant, 2008).

Grade Retention-The term "retention" in regards to school means repeating an academic year of school. Retention in school is also called grade retention, being held back, or repeating a grade" (McKay, 2001).

Graduation Coach-The coach's primary responsibility is to identify at-risk students and help them succeed in school by keeping them on track academically before they consider dropping out. The goals of the graduation coach are to mentor, query, coach, and inspire students to find academic success (Georgia Graduation Coach Incentive, 2008). In Project WALK all graduation coaches are also employed as teachers in the school district.

Project WALK-Project WALK (Washington Alliance for Learning and Knowledge) was established at Washington High School 2012-2013 school year. After looking at attendance, credits, age, grade point average, and discipline students who were in their second or third year of school and had a combination of two or more of the characteristics of at-risk behavior for dropping out were assigned a graduation coach. Students meet with a graduation coach every other day for ninety minutes.

Diploma- Document indicating successful completion of high school. (Lehr, Clapper, Thurlow, 2005)

High-Stake Testing- Testing that has significant consequences. Generally, in the past the term "high-stake testing" was applied to testing that had significant consequences for the students, such as earning a high school diploma or being promoted from one grade to the next. Recently, "high-stake testing" has also been applied to system-level testing, where consequences are applied to schools and districts that do not meet their targets for adequate yearly progress. (Lehr, Clapper, Thurlow, 2005)

No Child Left Behind Act (NCLB)-Reauthorization of the Elementary and Secondary Education Act passed by the legislature in 2001 and signed by President George W. Bush in 2002. Known as No Child Left Behind, the law was ground-breaking in its requirements for disaggregated accountability and for its inclusion of graduation rates with fairly strict definitions in its accountability system. (Lehr, Clapper, Thurlow, 2005)

Resilient-Vulnerable children or youth who become successful as adults despite the presence of contextual factors or characteristics that places them at risk. Oftentimes protection against later dysfunction is influenced by the interplay between the characteristics of the child, the presence of an effective caregiver, and the social context. (Lehr, Clapper, Thurlow, 2005)

Department of Elementary and Secondary Education (DESE)-Coordinates and regulates K-12 education in Missouri.

6. State the purpose of this proposed project (*what do you want to accomplish?*)**:**

The purpose of this study is to examine administrators, graduation coaches, and students' perceptions about graduation coaches as an intervention for at risk high school students. The researcher is seeking to find if graduation coaches are an effective intervention for students who are at risk of not earning a high school diploma. This study will look at secondary data to compare before, during, and after the intervention to test for a correlation between students being paired with a graduation coach and student outcomes; such as attendance, discipline, and number of credits earned.

Little is known about the experiences of individual students who are considered to be at risk of dropping out of high school. Qualitative components to the research have been lacking and could lend more insight into the effectiveness of interventions. Utilizing qualitative methods, student perceptions of their experiences would be described and analyzed. The quantitative data collected for this study will also assess whether the intervention of a graduation coach had an effect on students' attendance, discipline, and number of credits earned during the time of the intervention compared to other years the student was in high school.

7. State the rationale for this proposed project (*why is this worth accomplishing?*):

In the United States, on average, approximately 33 percent of high school students' dropout of high school before graduation each year (Bridgland, Diulio, and Burke, 2006). Typically, these students have been identified as at risk at some point in their high school years with strategies and interventions implemented to try and assist them in their struggle with the academic, social, emotional, and environmental challenges of high school.

Many of these at risk students tend to experience academic and behavioral problems such as dropping out of school, low test scores, increased grade retention, and discipline problems in school (Hickman, Barholomew, Mathwig, & Henrich, 2008). Given such environmental experiences, at risk adolescents tend to be less likely to graduate and or leave school without the basic skills necessary to succeed in life and overcome everyday life adjustments (Hickman & Garvey, 2006).

Graduation coaches have been discussed as viable approach for improving the educational and social outcomes of students at risk for graduation from high school. However, little data-based evidence has been presented regarding the effectiveness of graduation coaches for students at risk.

Washington High School was contacted by Missouri Department of Elementary and Secondary Education to participate in developing an intervention for at risk students in danger of dropping out of school. Washington High School agreed to partner with DESE to decrease their dropout rate. DESE then gave support and training to Washington High School in planning for their dropout intervention. In the past three

years Washington has increased its dropout rate by 10% each year. If that trend were to continue, in seven years there would be no graduates from Washington High school. In the 2011-2012 school year 108 students dropped out from Washington. A team of teachers and administrators met over the summer of 2012 and created Project WALK (Washington Alliance for Learning and Knowledge).

Project WALK focuses on increasing the number of credits, and attendance rate while decreasing the number of referrals. Five graduation coaches were chosen to work with the 40 students who were identified to participate in the program. Demographically, the students receiving intervention this year consist of 26 African American, 12 white, and 2 Hispanic students. There are 30 males, 10 females, 20 general education and 20 special education students.

The purpose of this mixed study is to understand the perceptions of students in their journey in obtaining a high school diploma. This study will also seek to understand factors that enable faculty and staff of a high school to help students achieve student success despite many factors in which students are labeled at risk. This study will specifically explore strategies that Washington High School is implementing to assist students who are struggling with the completion of coursework to obtain their high school diploma. Through this study the investigator seeks to find what is effective and what is not effective with the strategies the graduation coach is using as an intervention working with at risk youth.

8. State the hypothesis(es) or research question(s) of the proposed project:

1. Does providing high school at-risk students with a graduation coach change their perception about obtaining a high school diploma?
2. Students who have been paired with a graduation coach will show improvement in the students' attendance, discipline, and number of credits earned?

9. Has this research project been reviewed or is it currently being reviewed by an IRB at another institution?

☐ Yes, already approved ☐ Yes, pending LU IRB approval ☒ No

If yes, please state where the application has been/will be reviewed. Provide a copy of the disposition in the appendix if the application was approved.

10. What is the PI's relationship with the participants in the study or research site? If you have no relationship, indicate that. Explain how any coercion will be reduced or how the identities of the participants will remain anonymous if the PI is a superior.

I am an administrator at the school where the study will take place.

11. Participants involved in the study:

a. Indicate the minimum and maximum number of persons, of what type, will be recruited as participants in this study.

LU participants	0	Undergraduate students (Lindenwood Participant Pool)*
	0	Graduate students*
	0	Faculty and/or staff*

**Any survey of LU faculty, staff, or students requires approval by the Provost after IRB approval has been granted. Electronic surveys of LU faculty, staff, or students must use the University's Survey Monkey account, which must be created by an authorized administrator.*

Non-LU participants	40	Children / Adolescents [need guardian's consent]
	12	Adults
	0	Persons with diminished autonomy (e.g., seniors, medical patients, persons in correctional facilities, etc.)
	0	Other (specify):
Secondary Data	40	Population size
	10-40	Sample Size

b. From what source(s) will the potential participants be recruited?
Students will be randomly selected from the students who return their informed consent form who participate in Project WALK.

c. Describe the process of participant recruitment.
The investigator will go to the Project WALK classrooms and present a script for requirement for participating in the study. Students who return the inform consent will then be randomly selected to participate in the interview process.

d. Will any participants be excluded?

☒ Yes ☐ No

If yes, explain why and how.
Students' who do not return their informed consent form, will not participate in the study.

e. Where will the study take place?

☐ On campus – Explain: ☒ Off campus – Explain: The study will take place on Washington High School campus.

f. Briefly justify your sample size and selection criteria (probability sample or not, random, stratified random, purposive, etc.). Citations from statistics, research textbooks, or published studies in the field would be helpful.

The researcher will randomly select ten students who returned informed consent to interview. Project WALK currently has forty students' participating. Through the ten interviews, the researcher will attempt to gain the students' perspective of the program and why the students believe this intervention has assisted them or has not assisted them in completion of high school credits. Quantitative data will be pulled for all students who are participants in Project WALK. The following data will be pulled; attendance, discipline, and number of credits earned.

12. Methodology/procedures:
    a. Provide a sequential description of the procedures to be used in this study.
    1. Gain IRB approval.
    2. Midwestern School District has already granted permission.
    3. Go to Project WALK classes and read script to recruit participants in the study.
    4. Pass out informed consent paperwork.
    5. Collect signed informed consent from students and staff.
    6. Interview student and staff.
    7. Transcribe interviews.
    8. Use the coding method to organize the text of the transcripts, and discovering patterns within the organizational structure.
    9. Analyze and interpret data from the interviews.
        a) Write down each sub-question of the study
        b) Read each transcript noting the information from the interviews that answer sub-questions
        c) Interview responses will be studied and then major themes based from the patterns that continue to emerge from the responses will be determined
        d) Analyze these chucks of information and separate the chunks by noting which theme
        e) When the responses are identified with a theme, you will take a closer look at each response under each theme and determine a category for which the response is related.
        f) All interviews will be crossed-checked for common themes and categories among the different groups that were interviewed.
        g) Themes and categories will be then compared to the sub-questions.
    10. June 2013 the students in Project WALK's attendance, discipline, and number of credits will be pulled.
    11. The quantitative data will then be descriptively compared to before the students where in the intervention and their current data.

b. Which of the following data-gathering procedures will be used?
Provide a copy of all materials to be used in this study with application.

☐ Observing participants (i.e., in a classroom, playground, school board meeting, etc.)

When?

Where?

For how long?

How often?

What data will be recorded?

☐ Survey / questionnaire: ☐ paper ☐ email or Web
Source of survey:

☒ Interview(s) ☒ (in person) ☐ (by telephone)

☐ Focus group(s)

☒ Audiotaping

☐ Videotaping

☒ Analysis of the identified secondary data - specify source (who gathered data initially and for what purpose?): I will collect all of the following student's data participating in Project WALK; number of credits, attendance, and discipline.

☐ Other (specify):

13. Will the results of this research be made accessible to participants, institutions, or schools/district?

☒ Yes ☐ No

If yes, explain how.
Midwestern School District has requested a copy of the final dissertation.

14. Potential benefits and compensation from the study:

a. Identify and describe any known or anticipated benefits to the participants (perhaps academic, psychological, or social) from their involvement in the project.
There will be no benefits from participating in this project.

b. Identify and describe any known or anticipated benefits to society from this study.

This project will provide qualitative and quantitative data on the insight if graduation coaches are effective or ineffective on affective at-risk high school students.

c. Describe any anticipated compensation to participants (money, grades, extra credit).

There will be no compensation to participants in this study.

15. Potential risks from the study:

a. Identify and describe any known or anticipated risks (i.e., physical, psychological, social, economic, legal, etc.) to participants involved in this study:
There are no anticipated risks associated with this research.

b. Describe, in detail, how your research design addresses these potential risks:
There are no anticipated risks associated with this research.

c. Will deception be used in this study? If so, explain the rationale.
Deception will not be used in this study.

d. Does this project involve gathering information about *sensitive topics*?

[*Sensitive topics* are defined as political affiliations; psychological disorders of participants or their families; sexual behavior or attitudes; illegal, antisocial, self-incriminating, or demeaning behavior; critical appraisals of participants' families or employers; legally recognized privileged relationships (lawyers, doctors, ministers); income; religious beliefs and practices.]

If so, explain: This study is involves interviewing students have been identified as at-risk for dropping out of high school. This may be identified as a sensitive topic.

e. Explain the procedures to be used to ensure anonymity of participants and confidentiality of data during the data-gathering phase of the research, in the storage of data, and in the release of the findings. Audio recording will be

kept in a locked cabinet. After being transcribed the transcription will be kept on a flash drive with a passcode to access.

f. How will confidentiality be explained to participants?
A script will be read to the students when asked to participate in the study. A second script will be read before the interview.

g. Indicate the duration and location of secure data storage and the method to be used for final disposition of the data.

Paper Records
☒ Data will be retained until completion of project and then destroyed.
☐ Data will be retained indefinitely in a secure location.
Where?
Audio/Video Recordings
☒ Audio/video tapes will be erased after completion of project.
☐ Data will be retained indefinitely in a secure location.
Where?

Electronic Data (computer files)
☒ Electronic data will be erased after completion of project.
☐ Data will be retained indefinitely in a secure location.
Where?

16. Informed consent process:

a. What process will be used to inform the potential participants about the study details and (if necessary) to obtain their written consent for participation?

☒ An information letter / written consent form for participants or their legally authorized agents will be used; include a copy with application.

☐ An information letter from director of institution involved will be provided; include a copy with application.

☐ Other (specify):

☐ If any copyrighted survey or instrument has been used, include a letter or email of permission to use it in this research.

b. What special provisions have been made for providing information to those not fluent in English, mentally disabled persons, or other populations for whom it may be difficult to ensure that they can give informed consent?
There are no non fluent participants being asked to give informed consent.

17. All supporting materials/documentation for this application are to be uploaded to IRBNet and attached to the package with your protocol and your credentials. Please

indicate which appendices are included with your application. Submission of an incomplete application package will result in the application being returned to you unevaluated.

1 Recruitment materials: A copy of any posters, fliers, advertisements, letters, telephone, or other verbal scripts used to recruit/gain access to participants.

1 Data gathering materials: A copy of all surveys, questionnaires, interview questions, focus group questions, or any standardized tests used to collect data.

0 Permission if using a copyrighted instrument

1 Information letter for participants

1 Informed Consent Form: Adult

1 Informed Consent Form: guardian to sign consent for minor to participate

0 Informed Assent Form for minors

0 Information/Cover letters used in studies involving surveys or questionnaires

1 Permission letter from research site

1 Certificate from NIH IRB training for all students and faculty

Heather E. Dunnavant IRBNet electronic signature of faculty/student

Appendix J

Student Informed Consent Form

Lindenwood University

School of Education

209 S. Kingshighway

St. Charles, Missouri 63301

Informed Consent for Participation in Research Activities

"High School Graduation Coaches: Supporting At-Risk High School Students"

Principal Investigator Heather Dunnavant
Telephone: 314-953-5805 E-mail: hed176@lionmail.lindenwood.edu

Participant _____ Contact info _____

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1. You are invited to participate in a research study conducted by Heather Dunnavant under the guidance of Dr. John Long. The purpose of this research is to interview people who are involved with Project WALK (Washington Alliance for Learning and Knowledge). The results of this study will aid the researcher in understanding the success or failures of Washington High School students as they receive the intervention of a graduation coach.
2. a) Your participation will involve a one-on-one interview. The interview will consist of questions about your experiences.
   b) The amount of time involved in your participation will be twenty to thirty minutes.
3. There are no anticipated risks associated with this research.
4. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge about interventions put in place for at-risk students.
5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.
6. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.
7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Heather Dunnavant at 314-953-5805 or the Supervising Faculty, Dr. John Long at 636-949-4937. You may also ask questions of or state

concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs at 636-949-4846.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Participant's Signature Date	Participant's Printed Name
Signature of Principal Investigator Date	Investigator Printed Name

Revised 1-21-2010

Appendix K

Adult Informed Consent Form

Lindenwood University
School of Education
209 S. Kingshighway
St. Charles, Missouri 63301

Informed Consent for Parents to Sign for
Student Participation in Research Activities

"High School Graduation Coaches: Supporting At-Risk High School Students"

Principal Investigator Heather Dunnavant
Telephone: 314-953-5805 E-mail: hed176@lionmail.lindenwood.edu

Participant _____ Parent Contact info _____

Dear parent,

1. Your child is invited to participate in a research study conducted by Heather Dunnavant under the guidance of Dr. John Long. The purpose of this research is to interview students about their high school experience and how specific programs are helping them to succeed in obtaining their high school diploma.
2. a) Your child's participation will involve a one-on-one interview. The interview will consist of questions

   about your child's high school experience and to gain their perspective on Project WALK (Washington Alliance for Learning and Knowledge).

   b) The amount of time involved in your child's participation will be twenty to thirty minutes during academic seminar class.

4. There are no anticipated risks to your child associated with this research.
5. There are no direct benefits for your child's participation in this study. However, your child's participation will contribute to the knowledge about understanding the success of Washington High School students and the alternative educational interventions provided.
6. Your child's participation is voluntary and you may choose not to let your child participate in this research study or to withdraw your consent for your child's participation at any time. Your child may choose not to answer any questions that he or she does not want to answer. You and your child will NOT be penalized in any way should you choose not to let your child participate or to withdraw your child.
7. We will do everything we can to protect your child's privacy. As part of this effort, your child's identity will not be revealed in any publication or presentation that may result from this study.
8. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Heather Dunnavant at 314-953-5805 or the Supervising

Faculty, Dr. John Long at 636-949-4846. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs at 636-949-4846.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my child's participation in the research described above.

Parent's/Guardian's Signature	Date	Parent's/Guardian's Printed Name
Child's Printed Name		
Signature of Investigator	Date	Investigator Printed Name

Appendix L

NIH Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Heather Dunnavant successfully completed the NIH Web-based training course “Protecting Human Research Participants”.

Date of completion: 10/01/2012

Certification Number: 988848

Professional Vitae

Heather Elise Dunnavant is currently an assistant principal at Midwest East High School in the Midwest School District. Other administrative experiences include serving as an assistant principal in Normandy school district at Pine Lawn Elementary, Normandy Middle, and Normandy High School. Heather was a literacy coach at Bailey Middle School in the Metropolitan Nashville Public Schools before accepting the assistant principal position in St. Louis, MO. Heather taught with the Metropolitan Nashville Public Schools for four years before becoming a literacy coach.

Heather Elise Dunnavant earned a Bachelor of Science in Human Ecology Child and Family Studies, from The University of Tennessee at Chattanooga in May 2002. After earning this degree, she went to Trevecca University were she earned a Masters in the Art of teaching in 2005 and Master in Education with the emphasis of Education Administration in 2007. Heather then attended Union University were she earned her Education Specialist degree in Curriculum and Instruction in 2010. Ms. Dunnavant is currently working on an Educational Doctorate in Administration from Lindenwood University, with an anticipated graduation date of December 2014.