PREDICTING HIGH SCHOOL STUDENT SUCCESS FROM

EXTRACURRICULAR ACTIVITY PARTICIPATION:

A LOGISTIC REGRESSION ANALYSIS

by

JENNIFER MASON KLAERNER

Presented to the Faculty of the Graduate School of

The University of Texas at Arlington in Partial Fulfillment

of the Requirements

for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT ARLINGTON

December 2014

Acknowledgements

Many people deserve my gratitude for their role in my educational journey. First and foremost, thank you to my husband, Justin Klaerner, and my daughters. Justin, I could never have accomplished this goal without your love and support. Grace and Natalie, you are such amazing girls, and I am very proud of you. Thank you for your patience as I missed family time to go to class and work on my dissertation.

To my parents, Robert Mason, and Irma and Mark Sippel, thank you for always believing in me and pushing me to further my education. Thank you to my sister, Jessica Morrison, for your inspiration, encouraging words, and for talking to me on those late drives home from UTA. Thank you to my grandparents, Joe and Rachel Pearce and Everett and Betty Mason, and other family members, particularly Ellen Walker, for always asking about my school work and reminding me to stay the course.

Thank you to my friends who offered motivation throughout this process, who sent me articles they thought were pertinent to my literature review, and for those who checked up on me regularly to make sure I was writing every day. Thank you to David Holland and Samantha Thomas for your help gathering data for my study. I know what a time consuming task this was, and I greatly appreciate your help.

To my dissertation chair, Dr. Jim Hardy, thank you for your feedback, support and encouragement throughout this process. To my committee members, Dr. Maria Trache and Dr. Casey Brown, I truly appreciate your time and dedication in participating in this process. To Dr. Adrienne Hyle, thank you for being a part of this experience and for your encouragement along the way. I would also like to thank the members of Cohort Three for sharing ideas and for their friendship.

November 5, 2014

Abstract

PREDICTING HIGH SCHOOL STUDENT SUCCESS FROM

EXTRA CURRICULAR ACTIVITY PARTICIPATION:

A LOGISTIC REGRESSION ANALYSIS

Jennifer M. Klaerner, PhD

The University of Texas at Arlington, 2014

Supervising Professor: James Hardy

There are a large number of students who do not finish high school, and there is an even larger number of students who do not go on to college (Chapman, Laird, Ifill, Kewal Ramani, 2011). School officials are challenged with the task of implementing programs to help at risk students stay in school. Although there are many factors that are out of our control, school districts play a role in creating a supportive environment that promotes successful high school completion and college readiness. It is imperative that school officials make meaningful changes to current systems in order to better meet the needs of students while increasing the focus on high school graduation and preparing students for a successful college experience.

This study attempted to determine if involvement in athletics, fine arts, or the Advancement via Individual Determination (AVID) program has an effect on successful high school completion and/or college readiness when grade point average and socioeconomic status are held constant. The study examined involvement in athletics, AVID, and fine arts as predictors of successful high school completion and/or college readiness. It also examined how much each of these independent variables adds to the likelihood that a student will complete high school and/or become college ready. Lastly, the study attempted to discover if different programs are more successful for at risk students than others.

To answer the research questions, logistic regression was used to assess the association between the dependent variables (high school completion and college readiness) and the independent variables. The independent variables are: years involved in AVID, athletics, fine arts, socioeconomic status and grade point average. Based on the findings of this study, each of the independent variables had different levels of predictability of the dependent variables. Involvement in fine arts was the strongest predictor of high school completion. None of the independent variables significantly predicted college readiness for all students. Some of the variables also showed that they had significant predictive ability, but a weak strength of association.

Table of Contents

List of Tables

Chapter 1

Introduction

Many students labeled at risk of not graduating from high school manage to both successfully graduate from high school and also go on to attend college. However, there is a large number of students who do not finish high school, and there is an even larger number of students who do not go on to college (Chapman, Laird, Ifill, Kewal Ramani, 2011). Promoting high school graduation and preventing students from dropping out of school "is a national concern that poses a significant challenge for schools and educational communities working with youth at risk for school failure" (Christenson & Thurlow, 2004, p. 36). School officials are challenged with the task of implementing programs to help at risk students stay in school.

Students all over the country are at risk to not graduate from high school, which has negative implications on their future. Although there are many factors that are out of our control, school districts play a role in creating a supportive environment that promotes successful high school completion and college readiness. It is imperative that school officials make meaningful changes to current systems in order to better meet the needs of students while increasing the focus on high school graduation and preparing students for a successful college experience.

Background of Problem

The risk of students dropping out of high school is prevalent in our country. In all of the states, approximately 607,000 students in grades 9 through 12 dropped out of public high schools during the 2008-2009 school year (Chapman et al., 2011). In only one school year, over 600,000 students dropped out, which is indicative of what occurs in the United States each year. This vast number of students is entering adulthood without high school diplomas. This dropout rate is higher than that of The United Kingdom, Switzerland, Norway, South Korea, Japan, Italy, Ireland, Germany, Finland and Denmark. The United States now has a college graduation rate that is lower than Australia, Belgium, Canada, Denmark, France, Ireland, Israel, Japan, South Korea, Luxembourg, New Zealand, Norway, Sweden and the United Kingdom (Cookson, 2011).

Statistics such as these are a concern both nationally and within each state. The high dropout rates lead high schools to develop programs to promote high school completion. However, completing high school is not the only thing necessary for students to compete in a global job market. In addition to promoting high school completion, looking past high school to post-secondary education is an important consideration in program design and implementation.

High schools are charged with not only successfully graduating students, but also preparing students for college. College readiness means that a student is prepared to begin college without having to take remedial courses, and the student

has the ability to complete the entry-level college classes. High school performance research shows that a large portion of high school graduates are not sufficiently prepared for the work in college. Even though students are successfully graduating from high school, this does not mean that they are prepared to enter college. Many students get to college and have to take remedial courses before they can begin the entry level college courses. These remedial courses cost the students both time and money. When students are not successful during their first year of college, there is an increased likelihood that they will not complete college and earn a degree (Gigliotti, 2012).

While programs are being created to help students continue their education, it is important to understand which students are more likely to drop out of school. If school officials know which students are more likely to drop out of school, they can create programs that are designed specifically to help these students be successful. Such programs should target the specific needs of those students. The chance of dropping out is higher for students who have low academic ability, are from lower social classes, and are from racial or ethnic minority groups (McNeal, 1995). Therefore, programs should be implemented that promote success and high school completion for these students who are at risk of dropping out of school.

In 2009, the dropout rate for students from low-income families was approximately five times higher than the dropout rate for students from high

income families (Chapman et al., 2011). Students from low-income families are more likely to drop out of school, which is one reason why these students need increased access to programs that promote high school completion. The socioeconomic status of students is a factor that is out of the control of teachers, administrators, and policy makers. However, these school officials can have an impact on what programs are offered to assist these students in school. Additionally, school officials can impact how well the parents and students are informed about the different programs and opportunities that are available and how these programs may be accessed.

With the use of certain support systems, students are more likely to graduate from high school and move on to college. The intervention programs that are the most effective are those that identify students who are at risk for failure, continuously track the student's progress on educational standards over the years, and are designed to specifically address student engagement within the classroom and the school as a whole (Christenson & Thurlow, 2004). It is important to identify the students who are at risk and continue to focus on their individual educational attainment throughout middle and high school.

Interventions will have the greatest success with these students if they increase the level at which the student is engaged in the school experience. Student involvement in extracurricular activities or other programs offered by the school can increase their level of engagement, and in turn, have an impact on the

likelihood that they will graduate from high school. With a better understanding of which programs are most likely to prevent students from dropping out of school, educators could increase those types of programs offered at the high schools, increase the accessibility of the programs for all students, and increase student and parent awareness of these programs.

<div align="center">Statement of the Problem</div>

Many students never successfully complete high school or go on to college. For the 2009-2010 school year, the state of Texas had 36,070 students drop out of high school, a number of dropouts surpassed only by the state of California (Stillwell & Sable, 2013). In 2010, only 48.2% of all high school completers nationwide went on to college, with 15.2% of those enrolling in a two-year school, and only 33.1% enrolling in a four-year college (Digest of Educational Statistics, 2012).

There are many negative implications associated with not completing high school or not going to college. According to the 2010 U.S. Census, the average annual earnings of a person who did not graduate from high school is $20,241. The average annual earnings of a high school graduate is $27,511, and the average annual earnings of a person who earns a bachelor's degree is $56, 665 (U.S. Census Bureau, 2012). A high school education increases the earning potential of a person, and a college education increases it even further. The current poverty level for a family of four is $23,550 (Federal Register, 2003).

The unemployment rate is three times higher for people who do not complete high school than it is for college graduates. Unemployment not only affects the life of that individual, but it also affects the tax payers. High school dropouts cost the taxpayers more money than high school completers.   When comparing a high school dropout to a high school graduate, the dropout costs taxpayers an average of $292,000 throughout their lifetime due to the cost of incarceration and other factors, such as how much less these dropouts will earn and then pay in taxes (Breslow, 2012). Therefore, high school and college completion is a concern not only for the students and school officials, but for everyone in this country.

Such negative facts associated with not completing high school or going to college compel educators to create systems that help students become high school graduates and college bound students. Programs can be developed within the school to help promote and foster high school completion and college readiness. It is important to know which programs have the greatest effect on high school completion and college readiness, because these are the programs that we should be promoting and encouraging our students to get involved in during their high school career.

Many research studies have been conducted on what causes students to drop out of school, but there is a gap in the research on which programs lead to successful graduation and college readiness (Bradshaw, O'Brennan, & McNeely,

2008). In particular, there has not been research comparing the effectiveness of college readiness programs and extracurricular activities. If educators knew which programs best predict high school completion or college readiness, while holding socioeconomic status and grade point average (GPA) constant, they could promote student involvement in the programs that most frequently predict these desired outcomes.

Purpose of the Study

The purpose of this study was to determine if involvement in athletics, fine arts, or the AVID program has an effect on successful high school completion when grade point average and socioeconomic status are held constant. The study examined involvement in athletics, AVID, and fine arts as predictors of successful high school completion. It also examined how much each of these independent variables adds to the likelihood that a student will complete high school. The purpose of this study was also to determine if involvement in these programs has an effect on college readiness when grade point average and socioeconomic status are held constant. The study examined involvement in athletics, AVID, and fine arts as predictors of college readiness. It also examined how much each of these independent variables adds to the likelihood that a student is college ready.

The purpose of this study was also to determine how strongly involvement in athletics, AVID and fine arts programs is correlated to high school completion. Additionally, it is to determine how strongly involvement in athletics, AVID and

fine arts program is correlated to college readiness. Lastly, the purpose is to
discover if different programs are more successful for at risk students than others.

<center>Research Questions</center>

This study proposed six research questions. The first two research questions
answer questions of a descriptive nature about the profile of students and
variables being studies. The third and fourth questions pertained to the
predictability of independent variables on the dependent variable, high school
completion. The fifth and sixth research questions pertain to the predictability of
the independent variables on the dependent variable, college readiness.

1. What is the profile of all students in the studied district concerning the following
    variables: involvement in fine arts, athletics, AVID, grade point average, and
    socioeconomic status?
2. What is the profile of at risk students in the studied district concerning the
    following variables: involvement in fine arts, athletics, AVID, grade point
    average, and socioeconomic status?
3. How well does the participation in athletics, fine arts, and AVID predict high
    school graduation when grade point average and socioeconomic status are held
    constant?

<center>8</center>

4. How well does the participation in athletics, fine arts, and AVID predict high school graduation of at risk students when grade point average and socioeconomic status are held constant?

5. How well does the participation in athletics, fine arts, and AVID predict college readiness when grade point average and socioeconomic status are held constant?

6. How well does the participation in athletics, fine arts, and AVID predict college readiness of at risk students when grade point average and socioeconomic status are held constant?

Theoretical Framework

Because students drop out of school for many different reasons, there are a variety of theories on the subject. When looking at all of these together, "the theoretical framework on early school leaving and school failure indicates that these issues are complex, that there are multiple pathways to dropout and school failure, and that a variety of factors at different ecological levels influence these processes" (Bradshaw et al., 2008, p. 21). Instead of focusing on reasons for dropping out, this study focuses on ways to keep students in school. Therefore, student engagement is the theoretical framework of this study.

Engagement theory holds that for students to be truly engaged in their learning, they must be presented with meaningful learning activities and have opportunities for interaction with others. When students are engaged in meaningful learning activities, they are intrinsically motivated to learn. This

theory is based on the idea of creating successful collaborative teams that work on

ambitious projects that are meaningful to someone outside the classroom.

Students are motivated and engaged when they are given opportunities to work

together on projects that are aligned with their interests and are meaningful to

them. Such teamwork is found in the sports or productions of students involved

in extracurricular activities. It is also found in the rigorous coursework of

students who elect to participate in the AVID program (Kearsley & Shneiderman,

1998).

The work of Phillip Schlechty (2002) centered on the idea of authentic

engagement. Students are authentically engaged when they find value in the work

that they are doing, and the value is connected to an end result that truly has

meaning and importance to the student. In the fine arts program, for example, this

theory could be applied because the students see meaning in the practice they are

doing, because the end result of the performance is connected with the work. The

same could be true for involvement in athletics. Students are more connected to

the practice when they see the connection in practicing and doing well during a

game.

Three of the standards of engagement that Schlechty (2002) focused on

are affiliation, choice, and authenticity. Affiliation pertains to an opportunity for

students to work with other on projects or performances. Student engagement is

elevated when they have the chance to work with other students towards a

common goal. While working together, students are given the opportunity to build bonds with others. These social bonds increase the students' connections and engagement within the school.

Giving the students a choice in their learning also increases the level of engagement. The depth of a student's learning is enhanced when their interests are taken into consideration and the student is given a choice in the learning. Additionally, there is a need to provide learning encounters that are in response to the learning characteristics of a student population that is continually growing more and more diverse (Beecher & Sweeny, 2008). Enrichment and differentiation expand the knowledge of students by creating a sense of curiosity.

Authenticity of student work is found when it has significance in the lives of the students and is related to things that they deem important. Students are more engaged when the learning activities are centered on their interests. Learner centered teaching should replace a classroom in which the instructor is the only active participant. Reducing the gap we see in student achievement "involve[s] changing the teaching and learning paradigm from one of remediation to a strength-based, child-centered methodology of enrichment teaching and learning" (Beecher & Sweeny, 2008, p. 506). Instead of using a reactive approach by implementing remediation programs for students who are not successful, it is better to create a proactive system that engages students before they ever become unsuccessful.

Significance of the Study

There are several predictors of which students are at risk for dropping out of school. The students' GPA, test scores, gender, and race have the greatest impact on whether a student will stay in school (Mattson, 2007). However, instead of focusing on predictors of dropping out, recent research has indicated that it is important to look at what policies and programs have helped students labeled at risk successfully graduate from high school (Bradshaw, O'Brennan, & McNeely, 2008). School officials should examine the policies and programs that are within their power to influence and change instead of focusing on the negative factors that are out of their control. There is a need for "continued empirical study to determine those variables that influence the effectiveness of interventions" (Christenson & Thurlow, 2004, p. 37). Once a school district or school system has identified the programs that are effective in helping students reach the goals of high school completion and college readiness, those programs should be created, implemented, and promoted within the schools. The monitoring and continued evaluating and improving upon these programs is critical to continued success.

For students who do not find their own connections within school, programs can be implemented to help. Effective programs have a component for systematically monitoring the performance of the student, and also are centered around building relationships of students with their teachers, parents, and

12

classmates. The first element of a successful program is that it helps students build relationships, thus building social bonds and elevating the level of engagement the students feel within the school. The second element is the monitoring of the students' progress. Monitoring is crucial to ensure that a student stays on track and continue to meet and exceed their goals (Christenson & Thurlow, 2004). Involvement in extracurricular activities or college readiness programs such as AVID help students make connections and build relationships within school. Additionally, there is a student progress monitoring component to participating in athletics or fine arts, as well as the AVID program.

It is important to look at which programs have been successful in helping students graduate from high school. High school completion is a major goal for students and school officials. However, it is important to also look past high school completion and implement programs that also help students to successfully transition into college. In order to solve our national educational dilemma, it is important to learn how students who graduate from high school successfully make the transition into college (Lassila, Rule, Lee, Driggs, Fulton, Skarda, & Torres, 2009). Future research needs to determine which programs are effective in helping students graduate from high school and go onto college. This study will contribute to the field by providing information on the amount which involvement in AVID, athletics or fine arts can predict high school completion or college

readiness while the students' grade point average and socioeconomic status are being held constant.

Educators need to understand the programs that positively impact students' school experiences so that "empirically-based prevention efforts can ease the transition" (Stein & Hussong, 2007, p. 60). Programs specifically designed to help students become more engaged in school can help ease the transition from middle to high school, as well as provide the students the necessary skills to transition to college. It is beneficial to determine which programs have a positive correlation with high school graduation and college readiness, while holding student grade point average and socioeconomic status constant.

Knowing which programs have the greatest influence on students graduating from high school and/or college readiness will help educators to make good decisions about which programs should be offered and promoted at high school campuses. There has been a good deal of research conducted examining factors correlated with high school dropout rates, but there have been relatively few research studies examining the positive effect of programs geared toward dropout prevention (Bradshaw et al., 2008). Determining which programs are successful will give teachers, counselors and administrators knowledge of which programs should be recommended to the students.

This study was conducted using data from a school district in Tarrant County. This is an ideal school district in which to conduct the study because the students are similar demographically to the makeup of the entire state.

Table 1

Comparison of Studied District and State

Reporting Category	District Studied	State of Texas
Attendance Rate	95.9%	95.7%
Graduation Rate	85.8%	85.9%
Economically Disadvantaged	56.2%	60.4%
Limited English Proficient	16.1%	16.8%
At Risk	46.7%	45.4%
College Readiness- ELA	65%	65%
College Readiness- Math	67%	67%
College Readiness- Both	53%	52%

The data in Table 1 are taken from the AEIS report for the school district in the study for the 2011-2012 school year. Table 1 shows the similarities in the district that was studied and the state of Texas.   Because of the similarities between the school district studied and Texas as a whole, this was a good district

in which to conduct this study, because the results in some instances could be generalizable to the state as a whole, or to other district within the state with similar student populations.

<div align="center">Definition of Terms</div>

Logistic regression: A statistical analysis used to analyze the correlation between dependent and independent variables.

College readiness: In this study, college readiness is being defined by the students scoring a 2200 or higher on the mathematics and English language arts Exit Level TAKS test.

Texas Assessment of Knowledge and Skills (TAKS): A statewide assessment used in the state of Texas as a college readiness standard, and a requirement for high school graduation.

Limited English Proficiency: Students whose primary language is not English, who are unable to communicate effectively in English, and have not developed fluency in the English language are labeled as LEP.

At risk: The Texas Education Agency has 13 criteria for labeling students at risk of dropping out of school, including: unsatisfactory scores on an assessment, failing multiple classes, failing a grade, is a student of limited English proficiency, is pregnant or a parent, is homeless, is on probation or parole.

Chapter 2

Review of Literature

High School Dropouts

Students dropping out of school are a problem occurring in schools across the country. Creating support systems and fostering an environment for high school completion for all students should be a crucial concern for educators, policymakers and researchers nationwide (Christenson & Thurlow, 2004). The high school dropout rate has become a critical problem that needs to be addressed and remedied by school officials and policy makers. Additional research needs to be done to determine the necessary steps that should be taken to try and solve the high school dropout problem.

Because of this concern, school districts and communities are implementing programs to decrease the dropout rate and promote high school completion. School officials may identify the students who are at the highest risk for dropping out of school, however, there are a variety of reason they sever their connections within school and dropout, and there is not one common solution for these different reasons (Christenson & Thurlow, 2004). The variety of reasons students do not complete school are often out of the control of school officials. However, school personnel do have the power to create and implement programs to help these students, no matter their reason for dropping out of school.

The face of American society is changing, and so are the communities and cultures in this country. Communities, and as a result, school districts, have become more segregated economically. This results in schools having increasingly large minority and poor populations, as well as below average achievement levels (Foorman, Francis, Fletcher, Schatschneider & Mehta, 1998; Harris & Herrington, 2006; Lara-Conisomo et al, 2004). According to Christenson and Thurlow (2004), "dropout rates are disproportionately high for students from Hispanic, African American, Native American, and low-income backgrounds; students who live in single-parent homes; and those who attend large urban schools" (p. 36). The current socioeconomic status of students and most of these other factors are out of the control of school officials.

When students drop out of high school, it has several negative implications. Students who drop out of school have an increased chance "of subsequent criminal behavior, lower occupational and economic prospects, lower life earnings, and an increased likelihood of becoming a member of the underclass accompany dropping out of high school" (McNeal, 1995, p. 62). When students drop out of school, it often results in their continuing to have a low socioeconomic status into adulthood. High school dropouts are less likely to find high paying jobs because their occupational choices are limited (U.S. Census Bureau, 2012). Because of the increased probability of these negative consequences of dropping out of high school, it is important that educators and

18

policy makers implement programs that help students remain in high school and successfully graduate. Additionally, the programs implemented in high schools should prepare students for the transition to postsecondary education.

<center>Theories</center>

Engagement Theory

Multiple theories influence the research on the topics of high school completion and college readiness. However, this researcher wanted to focus on the positive predictors of student success, and therefore focused on the theory of student engagement. The premise of engagement theory is that students must be given meaningful activities and have the opportunity to work with others in order to truly be engaged in their learning. The level of student motivation is elevated when they are able to work with their peers on activities that are valuable to them. This type of teamwork on meaningful tasks is found throughout participation in extracurricular clubs, classes and activities (Schlecty, 2002).

The research of Schlecty (2002) focused on how and why students become authentically engaged in tasks. Students are authentically engaged when the work they are doing is aligned with their interests, and there is an end result connected to the work that has value to the student. Student engagement occurs when the activities provide an opportunity for affiliation, choice and authenticity.

Teachers can help students to be successful by creating engaging activities. Macala (2002) conducted a research study on student engagement in

<center>19</center>

the Canton City Ohio School District. This school district was given a grant to tackle the challenge of serving freshmen. Macala explains how the new programs instated in these schools are based on the work of Philip Schlechty. Schlechty (2002) states that students who are presented with quality work will become engaged in that work. When students are engaged, they will learn what is needed to pass assessments. The Canton City Ohio School District's program focuses on teaching material that is relevant to the students, and truly engaging their learning. This research states that discipline problems will decrease if the students are enjoying learning (Schlechty, 2002).

When students are given a choice in the activities in which they participate, they are more engaged, which is why it is important for teachers to differentiate instruction for the students in the classroom and extracurricular clubs and organizations. Differentiating instruction involved making changes to practices in the classroom to offer students multiple options for acquiring information, processing the information, and then expressing what they learn in a new way (Tomlinson, 2001). All students would benefit from a curriculum designed to meet their individual needs. The curriculum and the method in which it is delivered can be enriched and made more engaging, with the goal of designing learning experiences in response to specific students' learning characteristics (Schiever & Maker, 1997).

Enrichment activities are created to engage students in their learning by introducing students to a variety of subjects and topics that would not normally be covered in the classroom. These types of experiences foster the development of metacognitive thinking and the feeling processes, including creative and critical thinking, problem solving skills, and how to become and good learner (Beecher & Sweeny, 2008). Enrichment allows students an opportunity to explore problems first hand. They become researchers of a topic, and are given the freedom to inquire and discover new information.

Students enjoy activities that are centered on their interests. Learner centered teaching should replace a classroom in which the instructor is the only active participant. Reducing the current achievement gap in the United States requires shifting the teaching and learning paradigm from a remediation based mindset to a child-centered methodology, engagement and enrichment teaching and learning based on the strengths of the child (Beecher & Sweeny, 2008).

Extending learning beyond the school day can increase student achievement. After school activities such as those in athletics and fine arts programs give students opportunities for further engage in the school based on their own interests. After school classes should engage the students in unique enrichment activities and allow them the chance to take the learning acquired during the school day and apply that knowledge in a different environment

(Beecher & Sweeny, 2008). A student-centered approach to teaching and learning involves creating more individualized lessons and activities for students.

Cumulative Risk Theory

While the theoretical framework of this study is student engagement, there are other theories that support this research. Cumulative risk theory states that adolescents who experience multiple stressful life events are more likely to engage in delinquent behaviors. This theory "posits an inverse association between the number of risk factors and positive adjustment" (Bradshaw et al., 2008, p. 21). Positive affiliations, clubs, and activities have an inverse relationship with delinquent behaviors, which are linked to dropping out of school. By identifying which positive adjustments are the most helpful to students, school officials can then implement these programs in an effort to reduce delinquent behavior. By increasing positive interactions that reduce delinquent behavior, school officials will help at risk students successfully graduate from high school.

Social Control Theory

In addition to cumulative risk theory, social control theory also influenced much of the literature on high school completion. Social control theory was developed by Travis Hirschi in 1969, and remains a major theory in the field of criminology, but it also provides insight into student behavior. This theory "contends that individuals are naturally inclined to commit deviant acts and that

the strength of one's social bonds to various traditional institutions mediates this tendency" (McNeal, 1995, p. 63). Students with strong positive bonds at school are more likely to engage in positive behaviors and remain in school.

Hirschi (1969) held that these bonds come in four interrelated forms: attachment, commitment, involvement, and belief. Attachment refers to the affection a student has for other individuals or institutions. Adolescents who have close bonds with their parents and within the school will have greater levels of accountability for their actions and exhibit social control (Hirschi, 1969). With attachment, students then develop a sense of commitment, in which they would not want to jeopardize the social relationships that they have formed. Students who are involved in school organizations, clubs, and sports form attachments with their peers, instructors and with the school itself.

Involvement pertains to how students spend their time. When students are spending their free time involved in a pro-social activity, then they are not spending the same free time involved in antisocial or deviant activities (Hirschi, 1969). Students have a certain amount of idle time each day. Students who are spending their time involved in extra-curricular activities are not then spending that same time in deviant behaviors. The final type of social bond is belief, which asserts that a student's values or beliefs will impact their behavioral choices.

Social Capital Theory

Juxtaposed to the social control theory, social capital theory offers additional insight into the effect of group involvement. Portes (1998) defined social capital as "the ability of actors to secure benefits by virtue of membership in social networks or other social structures" (p. 6). In an educational setting social capital is present in different extracurricular groups, clubs, or classes. Student membership in clubs, organized sports, or other extracurricular organizations allows school teachers and sponsors the opportunity to positively influence student behavior.   Since common values "are key to developing functional social resources, groups that have specific, defining values are likely to have stronger social capital due to their group's closure" (Bassani, 2007, p. 27). School clubs and organized sports that focus on a common mission create shared values for the students involved. When clubs or organizations form group norms, goals, missions, or values, they are likely to have stronger social capital than groups without these shared beliefs.

Participation in sports and other extracurricular activities may increase social capital in multiple ways. It can create social capital within a family because it provides opportunities for interaction between the students and their parents. Involvement in extracurricular activities gives students the opportunity to develop and strengthen social bonds with their peers, parents, and with the

school itself (Broh, 2002). Involvement can help students build relationships with their family, and also with peers, coaches, and teachers in the school.

Transitions

As students make their way through the education system, there are several different challenges they will face. Many students encounter difficulties during the transition periods from middle to high school, high school to college, and also between two and four year colleges. Many challenges arise because there is not consistency in the requirements and expectations at the different levels (McGrath, Donovan, Schaier-Peleg, & Van Buskirk, 2005). The lack of consistency can be confusing and hinder adaptation for many students as they make transitions at different levels.

K-16 Collaboratives

In order to address this need for consistency, collaborative groups may come together to facilitate and encourage joint planning across K-16 educational spectrum. Instead of viewing each school or educational institution as an isolated entity, educators and school officials should look at these schools as a connected K-16 educational system. If the goal is for students to complete high school and have success in college, the schools should work together to ensure that students are successfully transitioning from one setting to the next (McGrath, et al., 2005).

Members of the K-16 system are often isolated within their own institutions, and there is limited communication between the different educational

institutions. K-16 collaboratives "facilitate new cross-institutional relationships, and they create social capital for education, providing connections, working on relationships, and respect that extend beyond the boundaries of any given projects" (McGrath, et al., 2005, p. 19). Collaborations create connections and networks among different educational groups. They also help students to remain connected as they transition from school to school.

Participants in the collaborative can include leaders in the K-12 school system, community colleges and universities, as well as community members. The students' successful completion of high school and college affects all community members, as was pointed out in the data on the amount of money that high school dropouts cost taxpayers. Bringing such leaders together, collaboratives attempt to bridge the gaps that are commonly found in the transitional years between various levels of schooling. These members promote universal reform by creating a vision that spans K-16 education, preventing students from dropping out along the way (McGrath, et al., 2005). The vision created by K-16 collaboratives should include the implementation of programs that support students and promote high school completion and college readiness.

Alan Blankstein (2004) addressed the elements that are necessary for effective and lasting reform in education. His first principle stated that there is a need for a common mission, vision, values, and goals, which can transform the culture of the school. An effective mission statement should state what is

expected of the students to learn, how it will be measured, what will be done if they do not learn, and how will the students be engaged in their own learning. The vision should serve as a motivator to improve the future, and the values are the shared attitudes of the group. The goals are the short term targets for reaching our vision.

A second principle defined by Blankstein (2004) is ensuring achievement for all students by using systems for prevention and intervention. To implement a successful system for prevention and intervention, certain guidelines should be systematically followed. First, you need a verbal commitment from faculty members, and then you should provide them with examples of exemplary programs so they have an example of what is expected. Then, the faculty should jointly develop a plan of action to be used when students don't learn, and agree on criteria for identifying students in need of assistance. It is the responsibility of the faculty and students to build culture of success.

Using data to guide decision making and continuous improvement is another principle explained by Blankstein (2004). In order for data to provide quality information, they needs to be multisourced, relevant, timely, consistent over time and disaggregated. This is why additional research on the effectiveness of school programs is important. This research will provide educators with data needed to make informed decisions. Data can be used to set goals, target

interventions, support change initiatives, guide continuous improvement, and monitor progress. Data are a useful resource in measuring improvement.

Research has shown that students are likely to struggle and possibly drop out of school during transitions, which is why successful transitioning of students from one educational setting to the next is an important K-16 educational issue. The biggest problems students have in academic performance and the greatest needs for support are concentrated at the times when students are making a transition between grade levels and from one educational system to the next (McGrath, Donovan, Schaier-Peleg, & Van Buskirk, 2005). In particular, the transition into high school and the transition from high school to college have a huge impact on whether students complete high school and then continue their education. Putting policies and structures in place to support students during these transitions would increase the number of students who graduate from both high school and college.

Middle to High School Transition

A major educational transition that students encounter is when they face the move from middle to high school. The ninth grade year is an important step in student's educational career, and can be a critical year in determining whether or not the student finishes high school (McCallumore & Sparapani, 2010). The freshman year is a time when educators need to make a concentrated effort to get students involved in the programs offered at the school. This will helps the

students build connections with not only other students and faculty, but with the school itself. Freshman year "is a pivotal point in a student's academic career, with data from the U.S. Department of Education revealing that little more than 60% of freshmen make it to graduation" (Dillon, 2008, p. 30). Helping those 40% of students who do not make it through the four years of high school should be a focus of school officials. Freshman year of high school is an important time to actively engage students in school and help them develop social bonds with their peers and teachers.

The number of students who dropout or are required to take remedial classes in college is alarming (Quint, 2006). Researchers have specifically looked at the freshman year of high school and pointed out that success during the first year of high school is a critical indicator of future achievement. Students who fail the ninth grade are much more likely to drop out of school than those students who advance to the tenth grade. As the dropout rates continue to rise, we have seen an increased interest in how to prevent this problem, and schools are using a wider variety of tactics (Gorn, 2009).

There are several reasons students struggle in high school, particular during their ninth grade year. The move from middle to high school can be very confusing. Middle schools are much smaller, and the students know the majority of their peers. In high school, they are mixed in with a completely new group of students. In addition to the increase in the number of students, they also have to

get to know a completely new faculty and staff. In middle school, the administrative team is made up of fewer individuals, making it less intimidating. When ninth grade students feel lost overwhelmed in the high school environment, it can contribute to their academic missteps. This is why it is critical that school officials encourage and help students make connections within the school (Chute, 1999).

The student's interest level, parental involvement, and peer groups all play a role in a child's education. All of these different situations affect a student's success throughout their freshman year and the remainder of high school. When students are struggling academically or behaviorally, they are more likely to drop out of school. Teachers, administrators, counselors, and other school personnel do not have control over all of these factors, but can work to improve many areas of a student's education. K-12 schools and universities with a mission to prepare students for elite positions often offer more choices, promote independence, and communicate these values and attitudes that lead to academic success (Davis, 2008). Promoting the independence of the students and offering more choices in their learning is a key element in a successful high school program.

Susan Black (2004) discussed the confusing transition students go through when moving from eighth to ninth grade. She looked at ninth grade classes from twenty to thirty years ago and compared it to schools today. There has been an increase in the number of students who are failing their ninth grade year, along

with a decrease in the number of students who are graduating from high school. Black described how failing ninth grade affected the student's chance of graduating, as well as how it affected the school itself.

During the time in which students transition from middle to high school, it is vital that they enter into a positive school climate. Glickman (2007) described two broad characteristics of a positive classroom climate. The first is a work oriented atmosphere and the second is warm, supportive environment. A work oriented atmosphere is created when the teacher focuses on academics and also explicitly communicates the expected behaviors and attitudes for the students. In a work oriented environment, students are focused on meaningful tasks and teachers create connections between the work and the end result. A supportive environment is fostered by the teacher providing praise and respect, exhibiting confidence, and maintaining an orderly classroom. Extracurricular and college readiness programs should create a positive climate for students, providing a work oriented atmosphere and a supportive environment.

The transition to high school is important because it also has an effect on the transition to college. Achievement lost during the transition from middle to high school is associated with attrition in college. There is a link between students falling behind when they start high school, and students who struggle to do well in college. Supporting students through the transition period to high school will give them some confidence to later make an even larger transition to

higher education. Therefore, programs that are implemented at the high school level to help students during this time can also have a positive impact on how easily students transition to college. The transition into high school and the transition from high school to college have a huge impact on whether students complete high school and then continue their education. Putting policies and structures in place to support students during these transitions would increase the number of students who graduate from both high school and colleges (Smith, 2006).

Mentoring

Mentoring programs are a method for helping students build relationships at school. A common type of mentoring is pairing freshman students with juniors or seniors. Levin (2005) discussed a school in Orange County that was opened in 2001. Before the school opened the faculty got together and developed a shared vision. This vision was that they would not allow any students to get lost in the system. Along with this vision, they developed a plan to help make sure that happened. The school officials started tutorial and advisement programs and built them into the school schedule. In addition, to help the freshmen students, an ignite mentoring program was started. This program pairs each freshman student with an upperclassman to act as their mentor. The mentoring starts before the freshmen enter the school, and it lasts all year. These mentor students provided a

positive influence on their freshman mentee, as well as gave them someone to ask questions or advice.

Administrators can also serve as mentors to students on their campus. However, it would be difficult for an administrator to work with every single student. Many schools chose to pair administrative mentors with students who have been labeled '*at risk*.' The My Team program, for example, was developed by Ricky Line, the superintendent of Hart County Schools in Kentucky. Line developed this program in response to the high level of students dropping out of school. Many students feel like they do not have a connection to their school. A mentor can provide a connection for those students, increasing their willingness to attend school and work hard to be successful. The My Team program matches each of the at risk students with a school administrator to serve as their mentor, make frequent contact with the student, and help them build connections within the school. The administrators reach out to these students as well as their parents through writing, conversations, and in person. This type of program often seeks out students who do not have support at home and attempts to provide that support system at school (Parker-Burgard, 2009).

Mentoring of all types is a contributor to student success. Students who take part in these programs have higher grade point averages, more likely to attend a college, less likely to drop out of school, or participate in at-risk behaviors. Mentoring is an important way to help our diverse student population

feel welcome in school. Mentoring programs need to be well-planned and long

term in order to benefit students. The types that are most beneficial are academic

mentoring, school adjustment mentoring, career mentoring, project-based and

community mentoring, group specific mentoring, and electronic mentoring. In all

of these programs, students are matched with existing faculty members or

community stakeholders to help engage them in meaningful relationships

throughout their careers (Parker-Burgard, 2009).

High School to College Transition

The transition to college often involves many life-changing events for a

student, such as leaving home for the first time. Several factors contribute to

whether or not a student successfully makes the transition from high school to

college. Many different people, including parents, teachers and counselors,

college professors and academic advisors, as well as programs seminars for

college orientation and adjustment periods all play a role in smoothing the

students' transition into college (Smith & Zhang, 2009). Not all students will be

influenced by each of these factors. It is important for school officials to strive to

positively influence all students in the event that they are not receiving this

positive support outside of school. While all of these factors cannot be influenced

by the schools, there are areas in which school leadership, policy makers, and

educators can have a positive impact on the students' transition. School officials

should focus on creating a positive school climate with programs and activities that engage students and help them to develop social bonds.

A successful transition into college helps a student stay in college and finish their degree. The transition period from high school to college has a large impact on increasing the number of U.S. students remaining in school and attaining a college degree, which is what it is so important that transition programs be implemented (Hoffman, Vargas, & Santos, 2008). These transition periods have critical implications for students' ability to earn degrees, and thus have critical implications on students' ability to attain jobs in the future (Bedolla, 2010). Students who earn college degrees have more job opportunities and the potential to earn more money throughout their life than students who do not complete college (U.S. Census Bureau, 2012).

As students transfer from one school to another, there is often a period in which academic performance declines (McCallumore & Sparapani, 2010). This decline in academic performance is a result of different factors that can cause stress for students during these transitions. Stress at school can come from factors such as academic performance, attendance, conversations and disagreements with teachers, and working to find a balance between school expectations and personal time (Suldo, Shaunessy, Thalji, Michalowski, & Shaffer, 2009). During these transition periods, it is crucial for schools to work to reduce these stressors and promote academic achievement. The stress level of students is lessened when

35

they are authentically engaged in their coursework, which leads to better academic performance.

Transition programs can span across the educational settings. Dual enrollment programs, for example, are accelerated instruction programs that allow students to receive college credit while still in high school. Students who participate in these accelerated instruction programs reported feeling more challenged and confident about the transition to college. Dual enrollment courses expose students to the rigorous course work that they will experience in college. These classes also give students the opportunity to earn college credits while still in high school, which saves them money as well. Dual credit programs are one focus of the AVID program (Bedolla, 2010).

It is important that we determine which transition programs are the most effective. Understanding how students who graduate from high school successfully make the transition to college is important to solving the national problem of students not going to college or not being successful once they are in college (Lassila, Rule, Lee, Driggs, Fulton, Skarda, & Torres, 2009). Future research needs to determine which programs are effective, and then further examine how those programs were implemented.

Educators need to understand the programs that positively impact students' school experience so that data-based prevention programs can ease their transition (Stein & Hussong, 2007). This research should also examine which

programs are the most cost effective and utilize resources that the schools have

access to. Students struggle during transition years, and there are several changes

that could be made within schools to address this concern. Transition programs

also work to promote independence for students, which enables them to better

transition to environments where the support is less evident.

<p style="text-align:center">College Readiness</p>

Increasing the college readiness of students should also be a primary focus

of the K-12 system, particularly high schools. According to Gigliotti (2012), "it is

critical that higher education institutions have a robust pipeline of students well

prepared for college-level work and equipped with the skills and knowledge to

cooperate and compete in a global community" (p. 167). Students should be

leaving high school prepared for the rigorous coursework that they will be

exposed to in college. They also need to be prepared to enter a competitive global

job market. The students who are in high school and preparing for college make

up our future work force, and they need to be well prepared to enter a competitive

environment.

Although attending college has shifted from an aspiration to an

expectation for many individuals, regardless of gender or race, the number of

American's earning degrees is not growing at as high of a rate as other countries.

For the past four decades, the educational achievement in the United States has

stalled, while the rest of the world continues to make positive gains. In order to

compete in a worldwide business market, students in America need to not only finish high school, but also go on to earn college degrees. Individuals with college degrees, on average, earn more throughout their life than those without college degrees, and they are much less likely to be unemployed (U.S. Census Bureau, 2012).

Students face many obstacles while pursuing an education, including financial and personal commitments that interfere with attending college. Pulling our country out of its educational slump requires schools to design programs that reach the 44% of students who drop out of college (Kamenetz, 2010). Not only do schools need programs to assist the students who drop out of college, but schools also need programs that support students while they are in high school, and strive to prevent them from dropping out.

Policy makers and school officials have a responsibility to promote high school and college completion by designing programs that support students and decrease the dropout rate. As a result of the need for a more educated workforce, the focus on college readiness has increased nationwide. Policy makers and educators need to develop a high school system that promotes rigorous curriculum in order to sufficiently prepare students to enter college and be successful once they are enrolled (Watt, Huerta, & Alkan, 2011). Merely graduating students from high school is no longer sufficient. High schools also need to prepare these students to be successful in their pursuit of higher education.

The college culture is shifting as the students who attend college are changing in age, gender, race, religion, ethnicity, and socioeconomic status. As that culture is shifting, so should the programs and policies in place for university students. The sometimes inaccurate perceptions of college students often influence policies that do not benefit the students or meet their individual needs. Students value their individuality and freedom to make their own choices. This freedom affects which colleges students choose to go to, and the courses that they take (Nathan, 2003).

House Bill 1 of the 79th Texas Legislature required the Texas Higher Education Coordinating Board and the Texas Education Agency to address college readiness and the skills that students should have in order to succeed in entry-level college courses. As a result, college readiness standards were developed in Texas. One of the standards developed is the one being used in this study to define college readiness. This is the Higher Education Readiness Component (HERC) on the TAKS test that students take in the 11th grade. If a student scores at least a 2200 on the Math and English/ Language Arts TAKS test, then they are considered to be the college ready.

<div align="center">Interventions</div>

For students who do not find their own connections within school, programs can be implemented to help. Effective programs systematically monitor the performance of the students. These programs also focus on relationship

<div align="center">39</div>

building among the students and their peers, parents, and educators (Christenson & Thurlow, 2004). In the AVID class or extracurricular programs, the teacher or coach often serves as a mentor to the students. By serving as a mentor, each student has an adult who shows interest in their success. The teachers and coaches are given the charge to build relationships with their students so that they each feel a connection with an adult at school. The social bonds that students create within the clubs and organizations that they are involved in help them to feel a sense of engagement within the school.

Additional researchers have indicated that the breadth of activities in which students are involved in can impact their success in high school (Fredricks & Eccles, 2010). It is possible that students' academic achievement can benefit when they participate in more than one arena of the school extracurricular activities at a time. Students are able to be involved in the AVID program, as well as participate in athletics and fine arts during their high school career. Participation in multiple areas allows these students to develop additional social bonds (McNeal, 1995).

Extracurricular activities exist at most public high schools. These activities, such as athletics and fines arts programs are a way for students to get involved in the school. There is a link between participation in extracurricular activities and "higher self-esteem, lower dropout rates, better attendance, success in school and on test, reduction of at-risk behaviors, physical fitness, and as a

predictor of success in college and later in life" (Ebie, 2005, p. 1). Participation in extracurricular activities gives students the opportunity to make connections within the school.

In order to participate in University Interscholastic League (UIL) sports or fine arts events, students have to maintain passing grades in all of their classes. Students who fail a class must sit out from UIL events for three weeks, at which time they may begin playing again only if they are passing the class that they had failed. This UIL rule motivates students to work harder in their classes. It also motivates coaches and sponsors to encourage students to maintain good grade in all of their classes.

An added importance of involvement in extracurricular activities is the mentoring relationship that is build. Coaches, instructors and directors serve as academic advisors for the students who participate in the activity. These educators are not only invested in student success within their extracurricular activities, but they also care about the students' success academically and personally. In order for this academic advising to be beneficial, it should be monitored regularly by a structure developed for academic advising, or by a representative from the chief academic officer's office (Tublitz, 2007). The mentors who are working with students need to be trained on elements of academic advising and monitored to ensure that they are in line with the campus goals and expectations for academic advising.

In a study at a high school in the southwest, Howard and Ziomek-Daigle (2009) examined the relationship between academic achievement, school bonding, and extracurricular participation. Howard used a single-group interrupted time-series design to examine this relationship and to determine how exploring the relationship between these constructs can help school counselors and school officials promote the school bonding and academic achievement of underperforming, uninvolved African American students in high school. This study was guided by Hirschi's (1969) Social Bonding Theory.

Only 11 students participated in the study. They were given a survey at the beginning of the process, and then their grades were monitored at the 6, 9, and 12 week periods. The findings indicated that involvement in extracurricular activities may have a significant effect in academic achievement, and "school officials and community agency personnel can collaborate and use extracurricular activities to help target the academic achievement of other uninvolved or off-track students" (Howard & Ziomek-Daigle, 2009, p. 39). There were significant changes in the students' grades. As students transition into high school, school officials should promote and encourage students to get involved in extracurricular activities that are offered. Struggling students who may become dropouts need to be counseled and mentored by school personnel. Involvement in different activities already being offered at the school could help the students find a connection and stay in school.

McNeal (1995) conducted a quantitative study of 735 high schools in the country, examining the effects of extracurricular activities on high school dropouts. Many factors, such as the students' social class, racial-ethnic background, gender, age, and household structure are also associated with dropping out. McNeal states that "an increased probability of subsequent criminal behavior, lower occupational and economic prospects, lower lifetime earnings, and an increased likelihood of becoming a member of the underclass accompany dropping out of high school in the United States" (1995, p. 62). However, McNeal points out that there are ways that students could voluntarily reduce his or her likelihood of dropping out of school.

With the social control theory as the framework, the researcher used a series of logistic regression models to look at the effects of involvement in athletics, fine arts, bands, and academic clubs, and the effect these organizations had on student dropout rates. McNeal suggests that there is a continuum of social groups within the school, ranking from high to low status, and the status of the groups impacts the prestige and power felt by the group members. The students who chose to participate in extracurricular activities do so at different rates and therefore have different levels of identifying with the school culture and values (McNeal, 1995). The extent which students participate in various activities is a predictor of the students' likelihood of completing high school.

According to McNeal (1995), athletics is a high status activity, and involvement in athletics had the greatest effect on students not dropping out of school. When all other variables are help constant, "students who participated in athletics were an estimated 1.7 times less likely to drop out than were those who did not participate" (McNeal, 1995, p. 69). Fine arts had the next largest effect, and students involved in those activities were 1.2 times less likely to drop out than students not involved in fine arts. This study did not find involvement in academic clubs to have a significant effect on decreasing dropout rates.

Athletics

Although playing a sport in high school is not directly linked to academic instruction, there are still benefits academically. For example, participation in a athletic team could elevate a student's status within the school, broaden his or her social relationships, or make both of these occurrences a possibility. The social bonds that are created through participation in athletics may increase a students' social capital. These connections also help the students feel engaged in the school itself and develop a sense of school pride (Mahoney & Cairns, 1997).

Involvement in organized sports is beneficial to children. It helps them to develop skills and become well-rounded students. Participation in organized sports gives students the opportunity to learn about listening skills, sportsmanship, teamwork, cooperation and collaboration. When students are involved in athletics in high school, it can have a meaningful and lasting impact on the youth, the

schools, and the entire community. Student athletes are involved in more than just playing the sport; involvement in athletics also requires involvement in the community (Griffith, 2007).

A study by Fredricks and Eccles in 2006 was administered to examine the relation between the duration of participation in organized sports and other school clubs and indicators of positive and negative youth development. The researchers ran a series of multiple regressions "to test the associations between the duration of participation in school clubs and organized sports and [their] indicators of adolescent adjustment (i.e. academic adjustment, psychological adjustment, peer context, and risky behavior)" (Fredricks & Eccles, 2006, p. 138). The researchers found that the duration of participation on school clubs predicted positive outcomes. Participation was a positive predictor of grades ($\beta = .22$, $p < .05$), psychological resilience ($\beta = .22$, $p < .05$), and academic peer context ($\beta = .30$, $p < .001$). The findings of this study indicate that not only is participation in school clubs important to look at, but also the length of time that the students are involved in these clubs and sports.

In a later article, Fredricks and Eccles (2010) explained how youth spend about half of their time in discretionary activities outside of school. The more time that students are spending in school clubs and organized sports, the less idle time they have that could be spent engaging in deviant or risky behaviors. There is a link between involvement in organized activities and a reduction in problem

behavior, such as dropping out of school and substance abuse. Involvement in extracurricular activities is predictive of educational attainment and mental health (Fredricks & Eccles, 2010).

In 2013, Price conducted a study to address the question if athletic involvement was positively correlated with higher grades, higher graduation rate, lower dropout rate, and higher attendance rate. In this study, surveys were sent to 7000 schools across the country. Looking at the results from the 961 high schools that participated, "the Pearson Correlation Test found a significant correlation between involvement in athletics and in schools reporting graduation rates (+/- .428), dropout rates (+/- .371). The results show a positive relationship between involvement in athletics and the high school completion rate, and found a negative relationship between involvement in athletics and the dropout rate. This indicates that students who are involved in athletics are more likely to complete high school and not drop out. The study also found that there was a positive correlation between athletic involvement and average daily attendance (+/- .320), and average letter grades (+/- .353) (Price, 2013).

Fine Arts

Through involvement in fine arts programs, students may also develop social bonds within the school. According to McNeal (1995), involvement in fine arts programs is a moderate-status activity on the continuum of high to low status activities in which student can elect to participate in high school. The results of

this study indicated that "participation in fine arts leads to an expected decrease of .167 units in the log-odds of dropping out" (McNeal, 1995, p. 69). These data reveals that students who participate in fine arts are 1.2 times more likely to graduate from high school than those who do not.

In addition to the social aspect, there has also been research on how involvement in some fine arts programs is linked to academic success. A paper recently published *in Nature Reviews Neuroscience* compiled research findings from all over the world. These findings indicate that training in music has deep impact on a variety of skills, such as memory and attention, vocabulary, language and speaking, and even the ability to express their emotions in words. All of these skills are beneficial to students for meeting the goals of high school completion as well as college readiness. Students who have participated in music lessons tend to have a higher reading level and a larger vocabulary than students who have not participated in music lessons or training (Baker, 2010).

In two different studies in Florida, Kelly (2012) analyzed fine arts-related instruction's influence on academic success. The first study was conducted in 2009, using data from the previous school year. Kelly looked at all 12th grade students, both those who participated and those who did not participate in fine arts programs. The data showed a "strong relationship between individuals who participated in school arts experiences and higher academic success as demonstrated by grade point averages," scores on the state assessment, as well as

scores on the SAT (Kelly, 2012, p. 8). As is the measure used in this study, scores on state assessments are also an indicator of college readiness.

The data also showed that the more years the students were involved in fine arts, the greater the benefit on their academic success. Students who show perseverance and remain involved in the program for multiple years show even better academic results than students who only participated in the program for a short length of time. School officials should not only encourage students to get involved in fine arts programs, but they should also stress the benefits of remaining in the program for multiple years. After collecting data from the 2010-2011 school year, a pattern emerged, indicating that involvement in fine arts does contribute to academic success, and this is present across all races and socioeconomic indicators (Kelly, 2012).

In a study conducted at UCLA using National Educational Longitudinal Survey data, researchers looked at the following three things: involvement in the arts and academic success, music and mathematics achievement, and theatre arts and human development. In each part of the study, researchers studied both the academic achievement of all students involved in arts programs, as well as specifically studying students with low socioeconomic status. The researchers felt that it was important to look at low socioeconomic students separately, because students from wealthier families are more likely to be exposed to music

and theatre and are more likely to be able to afford instruments in the home (Catterall et al., 1999).

The researchers looked at students who participated in the arts at the eighth, tenth, and twelfth grade levels. The first analysis indicated that high involvement in the arts in eighth grade improved students making As and Bs in English class and being in the top two quartiles on standardized tests. The findings also show that students with high involvement in the arts were less likely to dropout or be bored in school. In tenth and twelfth grades, students with high involvement in the arts had a higher percentage in the top two quartiles on standardized tests, top two quartiles in reading, high reading proficient, and top two quartiles in history. In each of the three different grade levels examined, the students highly involved in arts were between 16 to 18 percentage points higher in these different areas than the students with low involvement in the arts. When the same analyses were conducted using only students with a low socioeconomic status, the findings indicate that high involvement in the arts increased these different areas by approximately 8 to 10% (Catterall et al., 1999).

The second analysis the researchers conducted was looking at involvement specifically in instrumental music compared to cognitive development in mathematics. Learning to read music and associate musical notation involve forms of mathematical reasoning. The findings of this analysis show that students who were highly involved in instrumental music were more likely to have the

highest math proficiency in grade 12. For all students, there was a 20.6%

probability that they would have the highest math proficiency. For high

socioeconomic students with high involvement in instrumental music, this

probability was 48%. Low socioeconomic students with high involvement in

instrumental music had a 33.1% probability of having the highest math

proficiency, while low socioeconomic students with no music had only a 15.5%

probability of having the highest math proficiency (Catterall et al., 1999).

The third analysis examined the relationship between involvement in

theatre arts and human development. For this analysis, the researchers only

looked at students with low socioeconomic status. The findings indicate that

"sustained student involvement in theatre arts associates with a variety of

developments for youth: gains in reading proficiency, gains in self concept and

motivation, and higher levels of empathy and tolerance for others" (Catterall et

al., 1999, p. 2). While not all of these components are directly linked to

academics, they can influence the students high school experience and thus the

likelihood of high school completion.

AVID

College readiness programs implemented at the high school or college

level are also types of transition programs. Many of these programs are designed

to help students transition from high school to college. AVID (Advancement via

Individual Determination), for example, is a college readiness program that

emphasizes the importance of placing students in advanced classes and exposing them to rigorous curriculum that will prepare them for college. Additionally, the AVID program works to make sure the students are pursuing a graduation plan which meets the requirements necessary for admittance into four-year universities. AVID instructors work closely with students to make sure they have taken the required steps to prepare for and apply to college.

AVID was started in 1980 by Mary Catherine Swanson, a teacher in San Diego, California. This idea developed because Swanson wanted to help students do more to prepare for college. She saw a need for a new innovative approach to improve academic performance. AVID is an "educational reform aimed at helping previously low-achieving ethnic students and low- income students to do well academically and achieve college admission" (Hubbard & Ottoson, p. 43). AVID was developed for students who are low-performing, but have high potential to be successful in high school and in college (Mendiola, Watt, Huerta, 2010).

Students who are in the AVID program are moved from less academically rigorous classes, and placed in classes that will help prepare them for college. When students have met the requirements to enroll in four-year colleges while in high school, it makes the transition from high school to college smoother. AVID gives students the occasion to obtain skills that will be helpful when they transition from high school to higher education through an elective class with

highly trained teachers offering academic and social support, and AVID also

provides students the opportunity to work with college tutors (Mendiola et al.,

2010). Within the AVID elective class setting, the students receive support and

learn study skills to help them be successful. AVID instructors receive specific

training on AVID strategies that should be used with students to help them

achieve academic success in high school while preparing them for college.

Additional help with the AVID tutors is focused on their academics in high

school, particularly the Advanced Placement classes that they are taking.

AVID also involves preparing students for advanced level courses that

they will be exposed to in college. The AVID program targets things such as

"college entry skills and academic survival skills including study, organization,

time management, critical reading skills, and standardized college entrance exam

preparation" (Watt et al., 2008, p. 19). Students not only focus on academics, but

also on how to successfully transition to college. As a part of the AVID program,

students are taught study skills such as note-taking, organization, and time

management, that will help them not only be successful in high school, but

prepare for college as well. For many students, these skills are not inherent, and

the students need to be taught how to efficiently and effectively use their time to

study. Students need to be taught how to use process skills, such as comparing

and contrasting, looking for relationships, identifying the main idea and analyzing

data. When students are struggling, these skills will help them break down and understand the academic concept (Parker-Burgard, 2009).

The AVID program not only includes an AVID elective class with a trained AVID teacher, but also provides access to rigorous curriculum and the opportunity to work with an AVID tutor. AVID tutors are college students who come into the AVID elective classes a few times a week and work with the students on their coursework. In addition to providing students with academic support, the AVID tutors serve as mentors to the students and provide guidance regarding the necessary steps to prepare for college.

Watt, Huerta, and Alkan (2011) conducted a quantitative study to determine if students' success at a four-year university could be predicted by mastery of a college readiness indicator (meeting the HERC scores on the TAKS test), completion of four years of mathematics, completion of AP coursework, participation in AVID, and completion of concurrent or dual enrollment classes while in high school. Researchers performed a binary logistic regression analysis using all five college preparation variables as predictors. The results of the study showed that meeting the HERC in high school significantly predicted college success ($\beta = 3.831$, $p = .011$).

The study also showed that taking college credit courses in high school was a significant predictor of college success ($\beta = 2.973$, $p = .040$). AVID course completion also predicted college success ($\beta = 1.729$), but not at the $p < .05$ level

of significance (p = .085). This study indicates that certain course enrollment choices at the high school level can predict a student's success in college.

In a qualitative study conducted in 2006, Mendiola, Watt, and Huerta (2010) investigated the postsecondary progress of 42 Mexican American students who were involved in AVID in high school and went on to attend a college in South Texas. This study looked at which components of the AVID program enhance the students' academic experiences in college, and what measures indicate that the students are on track to successfully graduate from high school. Data were collected through surveys, interviews, and review of transcripts.

The results of this study indicated that the organizational and note taking skills learned in AVID were linked to successful graduation from high school. Additionally, the bonding with AVID teachers and peers was a theme that emerged from the data. Based on interview, survey, and transcript data, four characteristics were indicators of whether or not the students were on track to successfully graduate. The students who were on track to graduate completed a minimum of 20 academic hours per year, maintained a grade point average of 2.0 or higher, avoided academic probation, and obtained college credits in high school. The study indicated, "AVID provides high school students with some of the necessary skills and academic preparation needed to persevere in college" (Mendiola et al., 2010, p. 218). Since this study only looked at the academic

success of 42 Mexican Americans students, the researchers concluded that there is

a need for further research with a larger, more diverse sample of AVID students.

Chapter 3

Research Methodology

As a result of experience as a teacher and administrator in a public high school, this research felt that different activities and courses offered at the high school may have different effects on the successful graduation and college readiness of students. The researcher thought a study on which activities are significant predictors of high school completion and college readiness would add beneficial information to the literature on this topic. This is a quantitative study using a correlational method. Correlation is a statistical tool used to determine if there exists a relationship between the variables. A positive relationship exists when both variables increase, and a negative relationship exists when one variable increases as the other decreases (Bluman, 2008).

This quantitative study was non-experimental and used existing data from a single, public school district located in North Texas. Before the collection of data took place, written approval was obtained from the institutional review board (IRB). Additionally, per district policy, a formal written request for data was submitted to the school district being studied. The director of accountability for the district presented the request to the members of the cabinet. The cabinet reviewed the request and approval for the study was granted. Employees of the accountability office for the district then ran the necessary data that the researcher requested. Any information that could reveal the identity of any students in the

study was removed from the data before the data were given to the researcher. The researcher received the data in an Excel Spreadsheet. The study was conducted during the spring and summer semesters of the 2014 academic school year.

<center>Research Questions</center>

The purpose of this study is to determine if involvement in athletics, fine arts, or the AVID program have an effect on successful high school completion when grade point average socioeconomic status are help constant. It is also to determine if involvement in those programs have an effect on college readiness when grade point average and socioeconomic status held constant. The purpose is also to determine how strongly involvement in these programs is correlated to high school completion and college readiness, and if different programs are more successful for at risk students than others. The study was guided by the following research questions:

1. What is the profile of all students in the studied district concerning the following variables: involvement in fine arts, athletics, AVID, grade point average, and socioeconomic status?

2. What is the profile of at risk students in the studied district concerning the following variables: involvement in fine arts, athletics, AVID, grade point average, and socioeconomic status?

<center>57</center>

3. How well does the participation in athletics, fine arts, and AVID predict high school graduation when grade point average and socioeconomic status are held constant?

4. How well does the participation in athletics, fine arts, and AVID predict high school graduation of at risk students when grade point average and socioeconomic status are held constant?

5. How well does the participation in athletics, fine arts, and AVID predict college readiness when grade point average and socioeconomic status are held constant?

6. How well does the participation in athletics, fine arts, and AVID predict college readiness of at risk students when grade point average and socioeconomic status are held constant?

Population

The population of the study consisted of all students who entered the ninth grade in this district in Tarrant County in the fall of 2008. This includes all of the students at the three high schools within the district. Students who withdrew and enrolled in another district between ninth grade and graduation were removed from the study. Students who continued in school but did not graduate within the four year duration were removed from the study. Students who withdrew from school and received a General Education Development (GED) Certification were also removed from the study. The students who remained as a part of the study were those who graduated from the three high schools in the district in the 2011,

or the spring of 2012, or the students who dropped out of one of the three high schools and did not enroll in school elsewhere. The total number of students in the study was 1180. The total number of at risk students was 457.

<div align="center">Variables</div>

This research has two dependent, or outcome variables. There were five independent or predictor variables studied to see if they contributed to the outcome variables. The dependent variables in this study were high school completion and college readiness. The dependent variable of high school completion is categorical, and the student was coded either 'yes' the student completed high school or 'no' they did not. High school graduation will be determined with either a 0 for students who did not graduate from high school or a 1 for the students who did graduate from high school. The dependent variable of college readiness is based either 'yes' or 'no,' depending on the students' scores on a standardized test in English/Language Arts and Mathematics. College readiness will be determined based the student making a score of 2200 on the Exit Level TAKS Math and English/Language Arts tests. A student who scored at least a 2200 on the Math and English/ Language Arts TAKS will be coded with a 1, and students who did not score at least a 2200 on the Math and English/ Language Arts TAKS will be coded with a 0. The independent variables in this study are student involvement in AVID, athletics, fine arts, as well as grade point average and socioeconomic status. Involvement in the AVID program, athletics,

or fine arts classes was measured based on the number of years the student was enrolled in these classes. For example, a student who took four years of AVID was coded with 4 for that category.

Socioeconomic status was coded as a 0 for students who did not receive free or reduced price lunch and as a 1 for students who did receive a free or reduced price lunch at school. The National Department of Agriculture determines the income criteria for students to be eligible for free and reduced lunch. The Department determines which students will received free or reduced priced meals "by multiplying the year 2011 Federal income poverty guidelines by 1.30 and 1.85, respectively, and by rounding the result upward to the next whole dollar" (Federal Register, 2011, p.16724).

Grade point average (GPA) is determined as a numerical calculation based on the students' grades in each class for which they earned credit. The grade point average was a continuous numeric variable for the logistic regression. For the descriptive statistics, the grade point average was categorized and grouped together in increments of 10, creating six different groups of student grade point average. Students with a grade point average less than 60 were group one, students with a grade point average from 60-69 were assigned to group two, students with a grade point average between 70 and 79 were assigned to group three, students with a grade point average between 80 and 89 were assigned to group four, students with a grade point average between 90 and 99 were assigned

to group five, and students with a grade point average over 100 were assigned to group six.

The students' at risk status refers to whether or not TEA has identified of being at risk for dropping out of high school. This is coded as either a 1 for at risk, or 0 for not at risk. A student's at risk status is determined by one of thirteen factors, such as: They are in Pre-K through third grade and did not perform satisfactorily on a readiness test or assessment instrument administered; they are in grade seven through twelfth and did not maintain an average equivalent to 70 on a scale of 100 in two or more subjects in the foundation curriculum during a semester in the preceding or current school year; they did not advanced from one grade level to the next for one or more school years; they are pregnant or is a parent; they have been placed in an alternative education program, have been expelled or dropped out; they are currently on parole, probation, deferred prosecution, or other conditional release; they are a student of limited English proficiency; they are homeless or in the care of DPS; or they resided in the preceding or current school year in a residential placement facility in the district, including a detention facility, substance abuse treatment facility, emergency shelter, psychiatric hospital, halfway house, or foster group home (Texas Education Agency, 2013).

Correlation Coefficients

Before analyzing the relationship between independent and dependent variables, it is important to determine if there is any relationship between all of the variables. A correlation coefficient is a numerical assessment of the strength of a relationship between two variables. For the research questions in this study, because the dependent variables are categorical, a nonparametric method was used to determine if there is any relationship between each dependent variable and the categorical independent variables. The purpose of cross tabulation is to analyze relationships between nominal data. A cross-tabulation is "a two (or more) dimensional table that records the number (frequency) of respondents that have the specific characteristics described in the cells of the table" (Qualtrics.com, 2011, p.1).

Both the Phi coefficient and Cramer's V coefficient were determined in this study. The Phi coefficient is "a product-moment coefficient of correlation and is a variation of Pearson's definition of r when the two states of each variable are given values of 0 and 1 respectively" (Chedzoy, 2006, p. 1). Similar to Phi coefficient, Cramer's V is also a chi-squared-based measure of nominal association.

Data Analysis

To answer the research questions in this study, logistic regression was used to analyze the relationship between each dependent variable: high school

completion and college readiness, and the independent variables: years involved in athletics, AVID, or fine arts, grade point average and socioeconomic status. When using a "binary logistic regression analysis, it is essential that the categories of dependent variable should be encoded as 0 and 1 in the analysis" (Cokluk, 2010, p. 1401).

Logistic regression was first used in 1845 for mathematical studies of population growth (Cokluk, 2010). Logistic regression analysis is used to analyze the correlation between dependent and independent variables. Correlational research is used in studies to examine the correlation between two different variables that have not been manipulated (Cokluk, 2010). Binary logistic regression can be used to answer research questions assessing the likelihood of something occurring (dependent variable) based on independent variables. Logistic regression "is an analysis which enables us to estimate categorical results like group membership with the help of a group of variables" (Cokluk, 2010, p. 1399).

This study will use a binomial logistic regression model, because the dependent variables have only two categories. For categorical dependent variables that only have two values, logistic regression is used to describe how the dependent variable is related to a numerical independent variable" (Peck, Olsen, Devore). The two different dependent variables in this study, high school completion and college readiness, are both dichotomous.

Because student needs differ from place to place, the researcher felt it was important to study the students in one district in Tarrant County. "It is unlikely that a program developed elsewhere can be duplicated exactly in another site, because local talents and priorities for school reform, the particular interests and needs of the students to be served, and the conditions of the school to be changed will differ" (McPartland, 1994, p. 256). This study will provide relevant data for programs implemented in this school district, and schools with similar programs and demographics.

The data for this study were collected from Skyward, a student information tracking system used in the school district where data were collected. An Excel spreadsheet was generated by the director of accountability in this district, including all of the information for the independent and dependent variables. The spreadsheet was sent to the researcher, after all student names and ID numbers were removed. The researcher then used SPSS to conduct statistical analysis.

Chapter 4

Data Analysis

The purpose of this study is to add to the existing literature and contribute to an

area where little research has been conducted by examining the effects of

involvement in the AVID program, athletics, and fine arts on high school

completion and college readiness. This researcher looked at involvement in these

courses, while holding socioeconomic status and grade point average constant.

The results of this study may give evidence for supporting and encouraging the

involvement in particular programs to help students successfully graduate from

high school and become ready for college.

Analysis of Data Overview

To answer the research questions, logistic regression was used to assess

the association between the dependent variables (high school completion and

college readiness) and the independent variables. The independent variables are:

years involved in AVID, athletics, fine arts, socioeconomic status, and grade point

average.

Descriptive Statistics

The descriptive statistics for the independent variables are presented in

Table 2. Surprisingly, very few students were in the population who were

involved in the AVID program from any of the three high schools. This

researcher suggests the possible reasons for this, a) the AVID program was new to

the district and many students were not aware of this course; and b) this course was not a required course for students completing their high school graduation plan.

It was very surprising to see the number of students who took more than eight semesters of athletics or fine arts. In a typical four-year high school experience, a student will take eight semesters of classes. To earn more than eight semesters of credit in fine arts or athletics indicates that the student was taking multiple fine arts or athletics classes within a given semester. For example, the one student who took 24 semesters of fine arts took an average of three fine arts classes per semester. This was not possible for AVID, since there is only one AVID course offered each semester at each grade level.

The largest group of students in fine arts was those who took only one year. This can be explained by the fact that the graduation plan in this particular district requires all students to take at least two semesters of fine arts. Athletics and AVID are not required for graduation, which explains why the number of students who took those courses are lower. However, athletics courses may be substituted for the two required semesters of physical education, which explains why more students elected to take athletics than AVID.

Table 2

Descriptive Statistics of Independent and Dependent Variables

Variable	Count (n=1180)	Percent	Percent within group
Years in Athletics	Count	% of total population	% of all involved in Athletics
0.0	528	44.75%	N/A
1.0	182	15.42%	27.91%
2.0	172	14.58%	26.38%
3.0	153	12.97%	23.47%
4.0	145	12.29%	22.24%
Years in AVID	Count	% of total population	% of all involved in AVID
0.0	1039	88.05%	N/A
1.0	24	2.03%	17.02%
2.0	46	3.90%	32.62%
3.0	12	1.02%	8.51%
4.0	59	5.00%	41.84%
Years in Fine Arts	Count	% of total population	% of all involved in Fine Arts
0.0	42	3.56%	N/A
1.0	557	47.20%	48.95%
2.0	223	18.90%	19.60%

Table 2 Continued

3.0	109	9.24%	9.58%
4.0	249	21.10%	21.88%

GPA	Count	% of total population
<60	10	0.85%
60-69	20	1.69%
70-79	173	14.66%
80-89	516	43.73%
90-99	362	30.68%
>100	99	8.39%

Economically Disadvantaged	Count	% of total population
Yes	446	37.80%
No	734	62.20%

At Risk	Count	% of total population
Yes	457	38.73%
No	723	61.27%

Table 2 Continued

High School Completion	Count	% of total population
Yes	1117	94.66%
No	63	5.34%

College Ready	Count	% of total population
Yes	740	62.71%
No	440	37.29%

Note: Percents may not equal 100 due to rounding.

Analysis of Data

Research Question One

What is the profile of all students in the studied district concerning the following variables: involvement in fine arts, athletics, AVID, grade point average, and socioeconomic status?

The researcher first did a basic analysis calculating the percentage of students within each independent variable who were coded as a 1 (yes) for the dependent variable: high school completion, and then for the dependent variable: college readiness. The following tables answer research question one.

Table 3

Graduated Based on SES

	Graduated	*Dropped Out*
Economically Disadvantaged	91.26%	8.74%
Not Economically Disadvantaged	96.73%	3.27%

Table 3 shows the percentage of students who graduated or did not graduate based on whether or not they were coded as economically disadvantaged. The students who were coded as economically disadvantaged had a higher dropout rate than those who were not. In a similar analysis, the researcher calculated the percentage of only at risk students who graduated based on their economically disadvantaged status.

The researcher then examined the percentage of students who graduated or dropped out within each of the assigned GPA ranges. Table 4 shows the percentage of students who graduated or did not graduate based on the range in which their grade point average was categorized.

Table 4

Graduated Based on GPA Range

GPA Range	Graduated	Dropped Out
<60	0%	100%
60-69	20%	80%
70-79	86.71%	13.29%
80-89	97.29%	2.71%
90-99	100%	0%
>100	100%	0%

It is not surprising that 100% of students whose grade point average was below 60 did not graduate because this is below the minimum grade point average required to graduate from high school. The findings presented in this table are in line with the expectations of the researcher. The higher a student's grade point average, higher the likelihood that they will graduate from high school.

Table 5

Percent of students in Athletics who graduated

	Graduated	*Dropped Out*
Overall % Graduated	94.66%	5.34%
0 Years in Athletics	91.67%	8.33%
1 year in Athletics	94.45%	5.55%
2 Years in Athletics	96.51%	3.49%
3 Years in Athletics	98.96%	1.04%
4 Years in Athletics	99.30%	0.70%

Table 5 shows the percentage of students who graduated based on the number of years they participated in athletics. For this table, there were five different groups for the number of years the students participated in athletics. The overall graduation rate for all students was 94.66%

For the students who participated in athletics, the data shows that the greater the number of years that students were in the program, the higher the likelihood that they would graduate. One reason for this is that students who did not drop out of school were in school for a greater number of years, giving them a larger number of opportunities to take athletics.

Table 6

Percent of students in AVID who graduated

	Graduated	Dropped Out
Overall % Graduated	94.66%	5.34%
0 Years in AVID	94.51%	5.49%
1Year in AVID	87.50%	12.50%
2 Years in AVID	93.48%	6.52%
3 Years in AVID	100%	0%
4 Years in AVID	100%	0%

Table 6 shows the percentage of all students who graduated based on the number of years in which they participated in AVID. As the researcher expected, the more years the students took AVID, the higher the likelihood that they would successfully graduate. As was the case with involvement in athletics, students who did not drop out of school were in school for a greater number of years, giving them a larger number of opportunities to take AVID classes. The percentage of graduates who took zero years of AVID compared to the overall percentage of graduates was very close.

Table 7

Percent of students in Fine Arts who graduated

	Graduated	Dropped Out
Overall % Graduated	94.66%	5.34%
0 Years in Fine Arts	59.50%	40.50%
1 Year in Fine Arts	93.72%	6.28%
2 Years in Fine Arts	96.89%	3.11%
3 Years in Fine Arts	98.17%	1.83%
4 Years in Fine Arts	99.18%	0.82%
More than 4 Years in Fine Arts	99.21%	0.79%

The results for students who took zero years of a program vary for each program. Only 59% of students who took zero years of fine arts graduated. This percentage is likely lower than the other two programs because one year of fine arts is required to graduate from this school district on the regular graduate plan. The 59% of students who graduated without taking fine arts had to substitute alternate courses for to earn this credit.

The researcher then did a basic analysis calculating the percentage of students within each independent variable who were coded as a 1 (yes) for the second dependent variable: college readiness. Table 8 shows the percentage of students who met the assigned criteria for college ready or were considered not college ready based on whether or not they were coded as economically disadvantaged.

Table 8

College Ready Based on SES

	College Ready	*Not College Ready*
Economically Disadvantaged	52.47%	47.53%
Not Economically Disadvantaged	68.94%	31.06%

The students who were coded as economically disadvantaged had a lower percentage for college readiness than those who were not. This table suggests that whether or not a student was economically disadvantaged had a greater impact on college readiness than it did on high school completion.

Table 9

Percent College Readiness Based on GPA

GPA Range	College Ready	Not College Ready
<60	0%	100%
60-69	30%	70%
70-79	32%	68%
80-89	50%	50%
90-99	90%	10%
>100	100%	0%

Table 9 shows the percentage of students who were college ready or not college ready based on the range in which their grade point average fell. It is not surprising that 100% of students whose grade point average was below 60 were not college readiness. Many of the students in this group dropped out of school before the test to determine college readiness was given; therefore they were coded as not being college ready. The findings presented in this table are in line with the expectations of the researcher. The higher a student's grade point average, higher the likelihood that they have met the set criteria for college readiness.

Table 10

Percent of Students in Athletics Who Are College Ready

	College Ready	Not College Ready
Overall % College Ready	62.71%	37.29%
0 Years in Athletics	59.66%	40.34%
1 Year of Athletics	63.74%	36.26%
2 Years of Athletics	65.12%	34.88%
3 Years of Athletics	68.63%	31.37%
4 Years of Athletics	63.19%	36.81%
More than 4 Years of Athletics	100%	0%

Table 10 shows the percentage of students who met the criteria for college readiness based on the number of years they participated in the athletics. The overall percentage of students who were college ready was 62.71%. These data indicates that the students who took the greater number of years of athletics had a higher percentage that were college ready, with the exception of the students who took four years of athletics. This group only had 63.19% college ready, which was less than the students who took one, two, or three years of athletics.

Table 11

Percent of Students in AVID Who Are College Ready

	College Ready	*Not College Ready*
Overall % College Ready	62.71%	37.29%
0 Years in AVID	63.23%	36.77%
1 Year of AVID	45.83%	54.17%
2 Years of AVID	53.19%	46.81%
3 Years of AVID	66.67%	33.33%
4 Years of AVID	66.10%	33.90%
More than 4 Years of AVID	N/A	

Table 11 shows the percentage of students who were college ready based on the number of years in which they participated in the AVID program. A higher percentage of students who were in zero years of AVID were college ready than the students in one or two years of AVID. However, students who were in three or four years of AVID had a higher percentage of college readiness than students without any years of AVID.

Table 12

Percent of Students in Fine Arts Who Are College Ready

	College Ready	Not College Ready
Overall % College Ready	62.71%	37.29%
0 Years in Fine Arts	38.10%	61.90%
1 Year of Fine Arts	59.78%	40.22%
2 Years of Fine Arts	57.85%	42.15%
3 Years of Fine Arts	64.22%	35.78%
4 Years of Fine Arts	73.77%	26.23%
More than 4 Years of Fine Arts	80.31%	19.69%

Table 12 shows the percentage of students who were college ready based on the number of years in which they took fine arts classes. Students who took zero years of fine arts were much more likely to be college ready than students who took one or more years of fine arts. This could be because many students who took zero years of fine arts dropped out of school before taking the assessment to determine college readiness, which resulted in a coding of not college ready. Students who took three or more years of fine arts classes were more likely to be college ready than students who took less than that.

Research Question Two

What is the profile of at risk students in the studied district concerning the following variables: involvement in fine arts, athletics, AVID, grade point average, and socioeconomic status?

The researcher then did an analysis calculating the percentage of at risk students within each independent variable who were coded as a 1 (yes) for the dependent variable: high school completion, and then for the dependent variable: college readiness. The following tables answer research question two.

Table 13 shows the percentage of at risk students within each independent variable who were coded as a 1 (yes) for the dependent variable: high school completion.

Table 13

At Risk Graduated Based on SES

	Graduated	*Dropped Out*
Economically Disadvantaged	85.54%	14.46%
Not Economically Disadvantaged	95.35%	4.65%

Table 13 shows that the difference in the percentage that graduated and did not graduate based on economically disadvantaged status was even greater for at risk students. The socioeconomic status of specifically at risk students had a larger effect on whether or not they successfully graduated that it did for all students.

Table 14

At Risk Graduated Based on GPA Range

GPA Range	Graduated	Dropped Out
<60	0%	100%
60-69	26.67%	73.33%
70-79	87.50%	12.50%
80-89	95.78%	4.22%
90-99	100%	0%
>100	100%	0%

Table 14 shows the percentage of at risk students who graduated or dropped out within each GPA range. Much like Table 4, it is as the researcher expected that for the at risk students, the higher the student's grade point average, the higher the likelihood that they will graduate from high school. Also, like Table 4, it is it is not surprising that 100% of at risk students whose grade point

average was below 60 did not graduate because this is below the minimum grade

point average required to graduate from high school.

Table 15

Percent of at risk students in Athletics who graduated

	Graduated	Dropped Out
Overall % Graduated	90.15%	9.85%
0 Years in Athletics	86.52%	13.48%
1 year in Athletics	91.25%	8.75%
2 Years in Athletics	92.73%	7.27%
3 Years in Athletics	95.45%	4.55%
4 Years in Athletics	97.92%	2.08%

Table 15 shows the percentage of at risk students who graduated based on

the number of years that they participated in athletics. The overall graduation rate

for at risk students was 90.15%. Much like the data in Table 5 for all students, the

data for at risk students shows that for the students who participated in athletics,

the greater the number of years that students were in the program, the higher the

likelihood that they would graduate.

Table 16

Percent of at risk students in AVID who graduated

	Graduated	Dropped Out
Overall % Graduated	90.15%	9.85%
0 Years in AVID	89.80%	10.20%
1Year in AVID	87.50%	12.50%
2 Years in AVID	86.67%	13.33%
3 Years in AVID	100.00%	0%
4 Years in AVID	100.00%	0%

Table 16 shows the percentage of at risk students who graduated based on the number of years that they participated in the AVID program. The data presented in Table 16 are surprising because students who took zero years of AVID classes were more likely to graduate than students who took one or two years of AVID.

Table 17

Percent of at risk students in Fine Arts who graduated

	Graduated	Dropped Out
Overall % Graduated	90.15%	9.85%
0 Years in Fine Arts	59.38%	40.63%
1 Year in Fine Arts	89.52%	10.48%
2 Years in Fine Arts	94.85%	5.15%
3 Years in Fine Arts	97.56%	2.44%
4 Years in Fine Arts	97.06%	2.94%
More than 4 Years in Fine Arts	95.83%	4.17%

Table 17 shows the percentage of at risk students who graduated based on the number of years in which they participated in the fine arts program. As was the case for all students, at risk students who took zero years of fine arts were far less likely to graduate than the overall population of at risk students. Again, this is in part due to the fact that at least two semesters of fine arts classes or an appropriate substitution are required in order to graduate from this district. The data for at risk students in fine arts classes were not in line with the expectations of the researcher because students who took four years or who took more than

four years of fine arts courses were less likely to graduate than those who only

took three years of fine arts.

Table 18

At Risk Students College Ready Based on SES

	College Ready	Not College Ready
Economically Disadvantaged	33.47%	66.53%
Not Economically Disadvantaged	36.74%	63.26%

Table 18 shows the percentage of at risk students who are college ready or

not, based on their economically disadvantaged status. There were many more at

risk students who were not college ready than there were in the overall

population. This indicates that at risk students are less likely to be college ready

than students who are not at risk. Of the at risk students, whether or not they were

economically disadvantaged has less of an impact on whether or not they were

college ready than it did for the general population. However, the at risk students

who were not economically disadvantaged were slightly more likely to be college

ready than those who were economically disadvantaged.

Table 19

Percentage of At Risk Students Who are College Ready

GPA Range	College Ready	Not College Ready
<60	0%	100%
60-69	40.00%	60.00%
70-79	30.56%	69.44%
80-89	30.38%	69.62%
90-99	67%	33.33%
>100	100%	0%

Table 19 shows the percentage of at risk students who are college ready within each GPA range. These data are not aligned with the expectations of the researcher, because the GPA range 80-89 had a lower percentage of college ready students than the GPA ranges 60-69 and 70-79. However, as was the case for all students, 100% of the at risk students with a GPA greater than 100 were college ready. It was also a little surprising that only 67% of the at risk students in the 90-99 GPA range were college ready, while 90% of all students in that range were college ready.

Table 20

Percent of at risk students in Athletics who are College Ready

	College Ready	Not College Ready
Overall % College Ready	35.01%	64.99%
0 Years in Athletics	33.91%	66.09%
1 Year in Athletics	43.75%	56.25%
2 Years in Athletics	36.36%	63.64%
3 Years in Athletics	29.55%	70.45%
4 years in Athletics	29.17%	70.83%
More than 4 Years in Athletics	N/A	N/A

Table 20 shows the percentage of at risk students who were college ready based on the number of years in which they participated in athletics. The overall percentage of at risk students who were college ready is 35.01%. These data are not at all what were expected by the researcher, and present a negative trend. As the number of years participated in athletics goes up, the percentage of students who were college ready goes down.

Table 21

Percent of At Risk Students in AVID who are College Ready

	College Ready	Not College Ready
Overall % College Ready	35.01%	64.99%
0 Years in AVID	35.07%	64.93%
1 Year in AVID	31.25%	68.75%
2 Years in AVID	33.33%	66.67%
3 Years in AVID	40.00%	60.00%
4 Years in AVID	36.84%	63.16%
More than 4 Years in AVID	N/A	N/A

Table 21 shows the percentage of at risk students who were college ready based on the number of years in which they participated in the AVID program. Students who took one or two years of AVID had a lower percentage who were college ready than students who took zero years of AVID. Students who took three years of AVID had a higher percentage of college readiness, but that percentage dropped for students who took four years of AVID.

Table 22

Percent of at risk students in Fine Arts who are College Ready

	College Ready	Not College Ready
Overall % College Ready	35.01%	64.99%
0 Years in Fine Arts	37.50%	62.50%
1 Year in Fine Arts	35.80%	64.20%
2 Years in Fine Arts	35.05%	64.95%
3 Years in Fine Arts	31.07%	68.93%
4 Years in Fine Arts	32.35%	67.65%
More than 4 Years in Fine Arts	33.33%	66.67%

Table 22 shows the percentage of at risk students who were college ready based on the number of years in which they participated in fine arts. The results presented in this table are surprising. The percentage of at risk students who were college ready did not increase based on the number of years in which the student participated in fine arts classes.

Research Questions

This study attempted to answer the following: a) Can student involvement in AVID, athletics, or fine arts predict high school completion and college readiness for all students, and specifically for at risk students, and b) which

programs are the strongest predictors of high school completion and college

readiness when grade point average and socioeconomic status are held constant?

Research Question Three

How well does the participation in athletics, fine arts, and AVID predict high

school graduation when grade point average and socioeconomic status are held

constant?

To address research question three, the researcher used logistic regression

to examine the ability of the independent variables: years in athletics, AVID, fine

arts, grade point average, and socioeconomic status to predict the dependent

variable: high school completion. The coefficient B is the natural log of the odds

ratio Exp (B), and it displays the effect of the independent variable on the

dependent variable. If Exp (B), the odds ratio, is greater than 1, that shows an

increase in the odds that an event will happen. An odds ratio less than one shows

a decrease in the odds that an event will happen. This is when all other

independent variables are being held constant. S.E. stands for standard error and

Df stands for degrees of freedom. Wald is the measure of significance of

coefficient B for each of the independent variables. Sig. is the significance of the

Wald test.

According to the data in Table 23, student grade point average,

socioeconomic status, and involvement in fine arts were significantly correlated

with high school completion. Students who were coded as economically

disadvantaged are 50.03% less likely to complete high school than those who are

not. For every one point increase in a student's grade point average, they are 27%

more likely to complete high school. For each year increase in fine arts

participation, students are 89% more likely to complete high school.

Table 23

Logistic Regression: High School Completion by Independent Variables

Independent Variable	B	S.E.	Wald	df	Sig.	Exp(B)
SES	-.700	.352	3.949	1	.047	.497
GPA	.239	.030	62.857	1	.000	1.270
Athletics	.138	.170	.659	1	.417	1.148
AVID	.020	.237	.007	1	.933	1.020
Fine Arts	.636	.214	8.876	1	.003	1.890
Constant	-17.038	2.247	57.472	1	.000	.000

Notes: Variable(s) entered on step 1: econ, GPA, Ath, Avid, FA.

It was important to find the strength of the association between

independent and dependent variables in this research. Therefore, the researcher

used both Phi coefficient and Cramer's V coefficient and measures of association.

A correlation of positive 1 indicates that the independent variable can exactly

predict the outcome of the dependent variable. A correlation of 0 indicates that

there is no relationship between the independent and dependent variables. The

data in Table 24 shows the relationship between the dependent variable (high

school completion) and the independent variables (involvement in AVID,

athletics, fine arts, socioeconomic status, GPA, and At Risk).

Table 24

Correlation Coefficients and Measures of Association: High School Completion

Independent Variable	Phi Coefficient	Cramer's V Coefficient	Approx. Significance
Athletics	0.138	0.138	0.007
AVID	0.091	0.091	0.277
Fine Arts	0.385	0.385	.000
SES	-0.118	0.118	.000
GPA	0.619	0.619	.000
At Risk	-.159	.159	.000

What the researcher learned from these data was that all of the

independent variables were significantly correlated with the dependent variable in

research question one (high school completion), with the exception of

involvement in AVID. Involvement in AVID was not statistically significant at the .05 confidence interval. However, the strength of the association for several of the independent variables was weak.

The correlation between grade point average and high school completion was the strongest. This is congruent with the expectations of the researcher because a student's grade point average must reach a certain level in order for them to graduate. Of the three programs being studied, years enrolled in fine arts courses had the strongest relationship with high school completion.

Research Question Four

How well does the participation in athletics, fine arts, and AVID predict high school graduation of at risk students when grade point average and socioeconomic status are held constant?

To address research question four, the researcher used logistic regression to examine the ability of the independent variables: years in athletics, AVID, fine arts, grade point average, and socioeconomic status to predict the dependent variable: high school completion for only the 457 students coded at risk.

Table 25

Logistic Regression: High School Completion of At Risk Students by

Independent Variables

Independent Variable	B	S.E.	Wald	df	Sig.	Exp(B)
SES	-1.089	.444	6.026	1	.014	.336
GPA	.199	.036	30.314	1	.000	1.220
Athletics	.095	.191	.248	1	.619	1.100
AVID	-.044	.275	.025	1	.874	.957
Fine Arts	.606	.240	6.396	1	.011	1.833
Constant	-13.543	2.670	25.730	1	.000	.000

Notes: Variable(s) entered on step 1: econ, GPA, Ath, Avid, FA.

The data in Table 25 shows that only socioeconomic status, grade point average, and involvement in fine arts were significantly correlated with high school completion for at risk students. As was the case for all students, grade point average was the strongest predictor of high school completion for at risk students. At risk students coded economically disadvantaged were 66.4% less likely to complete high school than students who were not economically disadvantaged. For every one point increase of the grade point average of an at risk student, they were 22% more likely to complete high school. Of the three

programs being studied, involvement in fine arts was the only one significantly

related to high school completion for at risk students. For each year

participation in fine arts increased, at risk students were 83% more likely to

complete high school than at risk students who did not participate in fine arts.

The researcher then ran the data for correlation coefficient for only the

students who are coded at risk. The data in Table 26 shows the relationship

between the dependent variable (high school completion) and the independent

variables (involvement in AVID, athletics, fine arts, socioeconomic status, grade

point average) for only the at risk students.

Table 26

Correlation Coefficients and Measures of Association: High School Completion

for At Risk Students

Independent Variable	Phi Coefficient	Cramer's V Coefficient	Approx. Significance
Athletics	0.155	0.155	0.203
AVID	0.122	0.122	0.455
Fine Arts	0.362	0.362	.000
SES	-0.164	0.164	.000
GPA	0.551	0.551	.000

These data in Table 26 showed that there was not a significant correlation between high school completion and involvement in athletics or high school completion and involvement in AVID for the at risk students. The correlation between grade point average and high school completion was the strongest for the at risk students. This is congruent with the expectations of the researcher because a student's grade point average must reach a certain level in order for them to graduate. Of the three programs being studied, years enrolled in fine arts courses had the strongest relationship with high school completion for at risk students, and the only relationship that was significant at the .05 level.

Research Question Five

How well does the participation in athletics, fine arts, and AVID predict college readiness when grade point average and socioeconomic status are held constant?

To address research question five, the researcher used logistic regression to examine the ability of the independent variables: semesters in athletics, AVID, fine arts, grade point average, and socioeconomic status to predict the dependent variable: college readiness.

Table 27

Logistic Regression: College Readiness by Independent Variables

Independent Variable	B	S.E.	Wald	df	Sig.	Exp(B)
SES	-.193	.150	1.654	1	.198	.825
GPA	.185	.013	203.585	1	.000	1.203
Athletics	-.187	.054	12.125	1	.000	.830
AVID	-.060	.068	.763	1	.382	.942
Fine Arts	-.081	.066	1.495	1	.221	0.923
Constant	-15.003	1.074	195.084	1	.000	.000

Notes: Variable(s) entered on step 1: econ, GPA, Ath, Avid, FA.

The data in Table 27 shows that grade point average and involvement in athletics were the only independent variables that were significantly correlated with college readiness. However, involvement in athletics was not a positive predictor. For each year increase in involvement in athletics, students were 17% less likely to be college ready than average student. The student's grade point average was a positive predictor of college readiness. For every one point increase in grade point average, a student's odds of being college ready increased by 20%.

The researcher used both Phi coefficient and Cramer's V coefficient and measures of association to determine relationship between the dependent variable

(college readiness) and the independent variables (involvement in AVID,

athletics, fine arts, socioeconomic status, GPA, and At Risk).

Table 28

Correlation Coefficients and Measures of Association: College Readiness

Independent Variable	Phi Coefficient	Cramer's V Coefficient	Approx. Significance
Athletics	0.103	0.103	0.188
AVID	0.085	0.085	0.376
Fine Arts	0.235	0.235	.000
SES	-0.165	0.165	.000
GPA	0.515	0.515	.000
At Risk	-.455	.455	.000

The data in Table 28 shows that all of the independent variables were

significantly correlated with the dependent variable in research question three

(college readiness), with the exception of involvement in athletics and

involvement in AVID. Involvement in AVID and athletics were not statistically

significant at the .05 confidence interval.

The correlation between grade point average and college readiness was the

strongest. There was also a strong relationship between the at risk status of the

student and college readiness. Of the three programs being studied, years enrolled

in fine arts courses had the strongest relationship with college readiness, and was

the only relationship that was significant at the .05 level.

Research Question Six

How well does the participation in athletics, fine arts, and AVID predict college

readiness of at risk students when grade point average and socioeconomic status

are held constant?

To address research question six, the researcher used logistic regression to

examine the ability of the independent variables: semesters in athletics, AVID,

fine arts, grade point average, and socioeconomic status to predict the dependent

variable: college readiness, for only the students coded as at risk.

Table 29

Logistic Regression: College Readiness of at Risk Students by Independent

Variables

Independent Variable	B	S.E.	Wald	df	Sig.	Exp(B)
SES	-.072	.211	0.118	1	.731	.930
GPA	0.097	.018	29.806	1	.000	1.102
Athletics	-.238	.082	8.479	1	.004	0.788

Table 29 Continued

AVID	-.097	.112	.743	1	.389	0.908
Fine Arts	-.286	.102	7.924	1	.005	.751
Constant	-7.805	1.411	30.590	1	.000	.000

Notes: Variable(s) entered on step 1: econ, GPA, Ath, Avid, FA.

The data in Table 29 shows that student grade point average, involvement in athletics and involvement in fine arts were significantly correlated to college readiness for at risk students. For every one point increase in grade point average of an at risk student, the odds of them being college ready increased by 10.2%. Involvement in athletics and fine arts were both negatively correlated with college readiness for at risk students. For each year increase in involvement in athletics, at risk students were 21.2% less likely to be college ready, and at risk students were 24.9% less likely to be college ready for each year their involvement in fine arts increased.

The researcher then ran the correlation coefficient for only the students who are coded at risk. The data in Table 30 shows the relationship between the dependent variable (college readiness) and the independent variables (involvement in AVID, athletics, fine arts, socioeconomic status, grade point average) for only the at risk students.

Table 30

Correlation Coefficients and Measures of Association: College Readiness

Independent Variable	Phi Coefficient	Cramer's V Coefficient	Approx. Significance
Athletics	0.115	0.115	0.638
AVID	0.087	0.087	0.841
Fine Arts	0.162	0.162	.745
SES	-0.034	0.034	.000
GPA	0.284	0.284	.464

The data in Table 30 reveal that only grade point average had a significant relationship with college readiness for at risk students. For at risk students, the relationship between college readiness and all other independent variables was not significant at the .05 level.

Chapter 5

Summary, Conclusions, Limitations and Implications

Summary of Findings

This study attempted to answer the following: a) Can involvement in

athletics, AVID, or fine arts predict high school completion of all students? b)

Can involvement in athletics, AVID, or fine arts predict high school completion

of at risk students? c) Can involvement in athletics, AVID, or fine arts predict

college readiness of all students? d) Can involvement in athletics, AVID, or fine

arts predict college readiness of at risk students?

The study examined the effects of involvement in AVID, fine arts or

Athletics on high school completion and college readiness. Engagement theory

was used for the studies overarching theoretical framework. The following

sections address each research question and present conclusions from those

findings.

Research Question Three

How well does the participation in athletics, fine arts, and AVID predict

high school graduation when grade point average and socioeconomic status are

held constant?

An analysis of the data shows that high school completion can be

predicted by some, but not all of the independent variables. Using logistic

regression, the odds of high school completion can be predicted by participation in fine arts classes. High school completion could also be predicted by the background factors socioeconomic status and grade point average.

Using the Phi and Cramer's V Correlation Coefficient showed that involvement in fine arts and athletics, as well as grade point average and socioeconomic status were all significantly correlated with high school completion, but the strength of association was weak for some factors. The variable most strongly correlated with high school completion was grade point average, followed by participation in fine arts, and then participation in athletics and socioeconomic status.

Research Question Four

How well does the participation in athletics, fine arts, and AVID predict high school graduation of at risk students when grade point average and socioeconomic status are held constant?

An analysis of the data shows that high school completion of at risk students can be predicted by some, but not all of the independent variables. Using logistic regression, the odds of high school completion of at risk students can be predicted by participation in fine arts classes. High school completion of at risk students could also be predicted by the background factors socioeconomic status and grade point average.

103

Using the Phi and Cramer's V Correlation Coefficient showed that involvement in fine arts, as well as grade point average and socioeconomic status were all significantly correlated with high school completion for at risk students, but the strength of association was weak for some factors. The variable most strongly correlated with high school completion was grade point average, followed by participation in fine arts, and then and socioeconomic status.

Research Question Five

How well does the participation in athletics, fine arts, and AVID predict college readiness when grade point average and socioeconomic status are held constant?

An analysis of the data shows that college readiness can be predicted by some, but not all of the independent variables. Using logistic regression, the odds of college readiness can be predicted by participation in athletics. However, this was a negative relationship. Students who participated in athletics were actually less likely to be college ready. College readiness of students could also be predicted by the background factor grade point average, and this was a positive association.

Using the Phi and Cramer's V Correlation Coefficient showed that involvement in fine arts, as well as grade point average and socioeconomic status were all significantly correlated with college readiness, but the strength of association was weak for some factors. The variable most strongly correlated

104

with high school completion was grade point average, followed by participation in fine arts, and then and socioeconomic status.

Research Question Six

How well does the participation in athletics, fine arts, and AVID predict college readiness of at risk students when grade point average and socioeconomic status are held constant?

An analysis of the data shows that college readiness can be predicted by some, but not all of the independent variables for at risk students. Using logistic regression, the odds of college readiness can be predicted by participation in athletics and fine arts. However, this was a negative relationship for both variables. At risk students who participated in athletics were 21.2% less likely to be college ready, and at risk students who participated in fine arts were 24.9% less likely to be college ready. College readiness of at risk students could also be predicted by the background factor grade point average, and this was a positive association.

Using the Phi and Cramer's V Correlation Coefficient showed that only grade point average was significantly correlated with college readiness for at risk students. The relationship between college readiness and all other independent variables was not significant at the .05 significance level.

Conclusions

Based on the findings of this study, each of the independent variables had different levels of predictability of the dependent variables. As could be seen from the data, some of the independent variables showed predictability of one dependent variable, but not the other. Other independent variables showed predictability for all students, but not specifically for the at risk students. Some of the variables also showed that they had significant predictive ability, but a weak strength of association.

Engagement theory was used as the overarching theoretical framework for this study. The study looked at school factors, as well as background factors as predictors of high school completion and college readiness. The findings indicated that the background factors of grade point average and socioeconomic status are stronger predictors of high school completion and college readiness for all students, and for specifically students who have been labeled at risk. However, this study did show that the school factor, involvement in fine arts, can contribute to high school completion for all students. The study also showed that involvement in athletics was a negative predictor for college readiness for all students and involvement in fine arts was a negative predictor of college readiness for at risk students.

Limitations

The merit of the study was its ability to add to research on how involvement in fine arts, athletics or AVID relate to high school completion and college readiness. This study has the following limitations:

1. This study is limited in scope, due to only using data from one school district, and only the students from the freshman class of 2008. Students from other school districts or other states may respond differently to programs such as AVID, Fine Arts and Athletics. The ability of these programs to predict high school completion and college readiness may different in different settings.

2. This study was also limited in that it only examined data from one cohort of students. A longitudinal study within the same district would provide additional data on the predictive ability of these same programs.

3. A limitation of this study was the limited amount of students who were enrolled in the AVID program. Because so few students participated in AIVD, the low numbers caused problems with the significance of the statistical analysis.

Implications

If the goal of the school district is for students to successfully complete high school, then involvement in the fine arts program is the school factor with the greatest predictive ability. However, it was not a positive predictor of college readiness. The high school officials need to determine if their goal is to have students successfully graduate from high school, or if the goal extends beyond

high school into a desire for the students to become college ready. The school factors have vastly different predictive ability for these two different dependent variables.

This researcher would suggest that high schools set both of these dependent variables as the goal, but possibly have goals that are specific to each individual student's needs. If the goals were set individually for each student then the programs that are used to promote the student success could vary as well, based on the predictive ability of that independent variable.

The researcher recommends that more research be conducted in the area of factors that contribute to high school completion and college readiness. It is suggested that additional research include the cost of implementation of different programs, so that a cost-benefit analysis could be used to determine if the school districts are spending money on the programs that are positively correlated with students' successful completion of high school, as well as the students becoming college ready. This research also suggests that future research differentiate between the types of fine arts program that the students are involved in. Involvement in a group activity in which there are productions, such as band or theatre, might have a different effect that involvement in individual activities such as art.

Appendix A

University of Texas at Arlington IRB Approval

Institutional Review Board
Notification of Exemption

January 17, 2014

Jennifer Mason Klaerner
Dr. James Hardy
College of Education and Health Professions
19227

Protocol Number: 2014-0253

Protocol Title: *Klaerner Dissertation Protocol*

EXEMPTION DETERMINATION

The UT Arlington Institutional Review Board (IRB) Chair, or designee, has reviewed the above referenced study and found that it qualified for exemption under the federal guidelines for the protection of human subjects as referenced at Title 45CFR Part 46.101(b)(4).

- (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

You are therefore authorized to begin the research as of **January 17, 2014.**

Pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, "promptly report to the IRB **any** proposed changes in the research activity, and to ensure that such changes in approved research, during the period for which IRB approval has already been given, are **not initiated without prior IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject." Please be advised that as the principal investigator, you are required to report local adverse (unanticipated) events to the Office of Research Administration; Regulatory Services within 24 hours of the occurrence or upon acknowledgement of the occurrence. All investigators and key personnel identified in the protocol must have documented Human Subject Protection (HSP) Training on file with this office. Completion certificates are valid for 2 years from completion date.

The UT Arlington Office of Research Administration; Regulatory Services appreciates your continuing commitment to the protection of human subjects in research. Should you have questions, or need to report completion of study procedures, please contact Robin Dickey at 817-272-9329 or robind@uta.edu. You may also contact Regulatory Services at 817-272-3723 or regulatoryservices@uta.edu.

References

Baker, S. (2010). Music benefits the brain, research reveals. Retrieved from Naturalnews.com.

Bassani, C. (2007). Five dimensions of social capital theory as they pertain to youth studies. *Journal of Youth Studies 10*(1), 17-34.

Bedolla, L. (2010). Good ideas are not enough: Considering the politics underlying students' postsecondary transitions. *Journal Of Education For Students Placed At Risk*, *15*(1/2), 9-26.

Beecher, M. & Sweeny, S. M. (2008). Closing the achievement gap with curriculum enrichment and differentiation. One school's story. *Journal of Advanced Academics, 19*, 502-530.

Black, S. (2004). The pivotal year. *American School 191(2*), 42-44.

Blankstein, A. (2004). *Failure is not an Option*. Thousand Oaks, CA: Corwin Press.

Bulman, A. (2008). *Elementary statistics: A step by step approach (4th Ed.)*. New York: McGraw-Hill.

Bradshaw, C. P., O'Brennan, L. M., & McNeely, C. A. (2008). Core competencies and the prevention of school failure and early school leaving. *New Directions for Child & Adolescent Development, 2008*(122), 19-32. doi:10.1002/cd.226

Breslow, J. (2012). By the Numbers: Dropping Out of High School. *Frontline: Dropout Nation*. Retrieved August 20, 2013 from: http://www.pbs.org/wgbh/pages/frontline/education/dropout-nation/by-the-numbers-dropping-out-of-high-school/

Chapman, C., Laird, J., Ifill, N., KewalRamani, A., & National Center for, E. S. (2011). *Trends in high school dropout and completion rates in the united states: 1972-2009, compendium report.* National Center for Education Statistics, 2012 (6).

Chedzoy, O. (2006). *Encyclopedia of Statistical Sciences.* John Wiley & Sons, Inc.

Christenson, S. L., & Thurlow, M. L. (2004). School dropouts: Prevention considerations, interventions, and challenges. *Current Directions in Psychological Science (Wiley-Blackwell)*, 13(1), 36-39.

Chute, E. (1999). *Back to school: ninth grade proves to be a pivotal year for youths*. Post Gazette, Aug 24, 1999. Retrieved on July 20, 2009 from: www.post-gazette.com/regionstate/19990824ninth3.asp

Cokluk, O. (2010). Logistic Regression: Concept and Application. *Educational Sciences: Theory & Practice 10(3)*, 1397-1407.

Cookson, John. (2011). How U.S Graduation Rates Compare with the Rest of the World. *CNN World, Nov. 2011.*

Davis, B. G. (2009). *Tools for Teaching* (2nd Ed.). San Francisco: John Wiley and Sons.

Davis, D.J. (2008). The contributions of sociology to United States education. *International Journal of Interdisciplinary Social Sciences*, *(3),* 139-148.

Dillon, N. (2008). The Transition years. *Education Digest, 74(1),* 29-34.

Ebie, B. (2005). An investigation of secondary school students' self-reported reasons for participation in extracurricular musical and athletic activities. *Research and Issues in Music Education, 3(1)* .

Enrollment rates of 18- to 24-year-olds in degree-granting institutions, by level of institution and sex and race/ethnicity of student: 1967 through 2010. (2012). *Digest of Educational Statistics*, Table 213.

Foorman, B.R., Francis, D. J., Fletcher, J. M., Schatschneider, C., & Mehta, P. (1998). The role of instruction in learning to read: Preventing reading failure in at-risk children. *Journal of Educational Psychology, 90*, 37-56.

Gigliotti, J. (2012). Rice University: Innovation to Increase Student College Readiness. *Continuing Higher Education Review*, *76,* 166-174.

Glickman, C. (2007). *SuperVision and Instructional Leadership*. Boston: Pearson.

Gorn, E. (2009, June 26). The meanings of depression-era culture. *The Chronicle of Higher Education, 55(40),* B6-8.

Griffith, D. (2007). More scrutiny of high school student-athletes needed to ensure Academics a priority. *National Association of State Boards of Education,* 1-3.

Harris, D. N., & Herrington, C. D. (2006). Accountability, standards, and the growing achievement gap: Lessons from the past half-century. *American Journal of Education, 112,* 209-238.

Hirschi, T. (1969). *Causes of delinquency.* Berkeley: University of California Press.

Hoffman, N., Vargas, J., & Santos, J. (2008). Blending high school and college: Rethinking the transition. *New Directions for Higher Education,* (144), 15-25.

Howard, A., & Ziomek-Daigle, J. (2009). School Bonding, Academic Achievements, and Participation in Extracurricular Activities. *Georgia School Counselors Association Journal,* 16(1), 39-43.

Hubbard, L. A., & Ottoson, J. M. (1997). When a bottom-up innovation meets itself as a top-down policy: The AVID untracking program. (1997). *Science Communication, 19*(1), 41-55.

Kamenetz, A. (2010). *DIY U: Edupunks, edupreneurs, and the coming transformation of higher education.* White River Junction, VT: Chelsea Green Publishing.

Kearsley, G., Shneiderman, B. (1998). Engagement Theory: A Framework for Technology-Based Teaching and Learning. *Educational Technology*, 38(5), 20-23.

Kelly, S. (2012). A Comparison of cohort data from 2007-2008 to 2010-2011 regarding fine arts-related instruction's influence on academic success. *Florida Music Director,* 8-10.

Lara-Conisomo, S., Pebley, A. R., Vaiana, M. E., Maggio, E., Berends, M., & Lucas, S. R. (2004). A matter of class: Educational achievement reflects background more than ethnicity or immigration. *RAND Review, 28*(3), 10-15.

Lassila, K.; Rule, L.; Lee, C.; Driggs, R.; Fulton, G.; Skarda, M.; Torres, J. (2009). *Journal of the Iowa Academy of Science 116 (1-4),* 9.

Levin, S. (2005). A Big High School Made Smaller. *Association of California School Administrators,* March 2005.

Macala, W. F. (Feb 2002). A New Freshman Experience. *Principal Leadership, 2(6),* 27–29.

Mahoney, J. L., & Cairns, R. B. (1997). Do extracurricular activities protect against early school dropout? *Developmental Psychology, 32*, 241–253.

Mattson, C. E. (2007). Beyond admission: Understanding pre-college variables and the success of at-risk students. *Journal of College Admission,* (196), 8-13.

McCallumore, K. M., & Sparapani, E. F. (2010). The Importance of the Ninth Grade on High School Graduation Rates and Student Success in High School. *Education, 130(3),* 447-456.

McGrath, D., Donovan, R., Schaier-Peleg, B., & Van Buskirk, W. (2005). *Collaborative advantage: Lessons from K-16 educational reform*. Lanham, MD: Rowman & Littlefield Education.

McNeal, R. B. (1995). Extracurricular activities and high school dropouts. *Sociology of Education, 68*(1), 62-80.

McPartland, J.M. (1994). Dropout prevention in theory and practice. In R.J. Rossi (Ed.), Schools and students at risk: Context and framework for positive changep. 255–276

Mendiola, I.D., Watt, K.M., & Huerta, J. (2010). The impact of advancement via individual determination (AVID) on Mexican American students enrolled in a 4-year university. *Journal of Hispanic Higher Education, 9*(3), 209-220.

Nathan, Rebekah. (2003). *My freshman year.* New York: Cornell University Press.

Parker-Burgard, D. (2009). Mentoring Program Makes Connections. *District Administration*, *45*(7), 46.

Peck, R., Olsen, C., Devore, J. (2008). *Introduction to Statistics and Data Analysis* (3rd ed.). Belmont, CA: Thomson Brookes/Cole.

Portes, A. (1998). Social capital: its origins and applications in modern sociology. *Annual Review of Sociology (24)*, 1-25.

Price, A. (2013). Slashing sports: A National study examining the correlation between athletic involvement and academic success. (Unpublished doctoral dissertation). Capella University, Minnesota.

Quint, J. (2006). Meeting five critical challenges of high school reform. *MDRC Executive Summary, May 2006,* ES1-10.

Schlechty. P. (2002). *Working on the Work.* San Francisco: John Wiley and Sons.

Smith, J. S. (2006). Examining the Long-Term Impact of Achievement Loss During the Transition to High School. *Journal Of Secondary Gifted Education*, *17*(4), 211-221.

Smith, W. L., & Zhang, P. (2009). Students' perceptions and experiences with key factors during the transition from high school to college. *College Student Journal*, *43*(2), 643-657.

Stein, G., & Hussong, A. (2007). Social and academic expectations about high school for at-risk rural youth. *American Secondary Education, 36*(1*)*, 59-79.

Stillwell, R., and Sable, J. (2013). *Public School Graduates and Dropouts from the Common Core of Data: School Year 2009–10: First Look (Provisional Data).* U.S Department of Education. Washington, DC: National Center for Education Statistics. Retrieved August 20, 2013 from http://nces.ed.gov/pubsearch.

Suldo, S. M., Shaunessy, E., Thalji, A., Michalowski, J., & Shaffer, E. (2009). Sources of stress for students in high school college preparatory and general education programs: Group differences and associations with adjustment. *Adolescence, 44*(176), 925-948.

Tublitz, N. (2007*). Re-integrating athletics into academics: supporting the athletic academic advisor.* National Association of Academic Advisors for Athletics, June, 1-2.

U.S. Census Bureau, Statistical Abstract of the United States. (2012). Retrieved on August 20, 2013 from: http://www.census.gov/compendia/statab/2012/tables/12s0232.pdf.

Watt, K. M., Johnston, D., Huerta, J., Mendiola, I., & Alkan, E. (2008). Retention of first-generation college-going seniors in the college preparatory program AVID. *American Secondary Education*, *37*(1), 17-40.

Biographical Information

Jennifer M. Klaerner graduated from Texas A&M University in 2005 with a degree in Political Science and a teaching certification in Social Studies and Mathematics. While teaching high school Algebra, Jennifer earned her Master's Degree in Educational Leadership from Dallas Baptist University. Jennifer completed her PhD in K-16 Educational Leadership and Policy Studies from the University of Texas at Arlington in 2014. She is currently the Dean of Instruction at a high school in Tarrant County. Her research interests include high school and college completion of at risk students, transition and mentoring programs, and behavioral intervention strategies for K-12 students. She plans to continue her educational leadership as a practitioner and a researcher, seeking to increase high school and college completion for at risk students through the implementation of support systems and mentoring programs.