An Examination of Transitioning and Relationship Building among High School Students and Mentors: A Strength-Based High School Completion Program

by

Frankie Bell

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Approved by

Lisa A. W. Kensler, Chair, Associate Professor of Educational Foundations, Leadership and Technology
Cynthia J. Reed, Member, Emily R. and Gerald S. Endowed Professor of Educational Foundations, Leadership and Technology
Frances K. Kochan, Member, Wayne T. Smith Distinguished Professor of Educational Foundations, Leadership and Technology
Margaret Ross, Member, Alumni Professor of Educational Foundations, Leadership and Technology

Abstract

High school dropout rates in the United States have a negative impact on society at large. Dropping out of high school has been shown to have a positive correlation to increased crime rates (America's Promise Alliance, 2013; Bjerk, 2011). Generally, dropping out of school is not a single act that results from a single cause; it is a gradual process stemming from a variety of experiences and barriers. It is noted that a number of strategies can be very helpful in reducing the dropout rate, especially among those youth most at risk. Many of these strategies are aimed at the 9th grade transitional stage (Christenson, et al., 2012; Hammond, et al., 2007). The similarities among effective dropout prevention programs for 9th grade students include a focus on building students' sense of belonging to school so that they are connected to and engaged with the school and the school environment. One such program, Truman Pierce Institute's Building Individual Capacity for Success (BICS) at Auburn University, Alabama, is a strengths-based dropout prevention program created to work with 200 students transitioning into high school in both rural and urban schools in Alabama. The purpose of this research was to investigate whether students' sense of belongingness improved when they participated in the BICS program. The study also examined the degree to which there were differences in the academic performance and the number of discipline referrals and absences for students who engaged in the BICS program when compared to students with similar characteristics that did not participate in BICS.

The results in this study confirmed that students that participation in the BICS program was associated with, decreased student absences, lower rates of discipline referrals, higher student GPAs and an increased sense of student belonging. There is strong evidence that the implementation of BICS program facilitated student transition into high school and ultimately generated academic success.

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CHAPTER I. INTRODUCTION

The national high school dropout rate has consistently declined since the late 1960s: the 2012 dropout rate of 7% was significantly lower than the 17% reported in 1967 (Child Trends, 2013). Now many states have begun to use a four-year adjusted cohort model to calculate their graduation rate. This cohort model calculates the graduation rate by taking into account the number of students who graduate in four years with a regular high school diploma divided by the number of students who form the adjusted cohort for the graduating class. From this, the students who enter at the beginning of the ninth grade form a cohort and the numbers are adjusted according to students who transfer into or out, move to another country, or die during that same period. This low national percentage, however, masks the graduation disparities seen across many ethnic groups and geographic locations in America (Child Trends, 2013). While the dropout rates for ethnic majority youth have followed the same trajectory as the national rates, the dropout rates for ethnic minority students — especially those attending low-income urban high schools — have remained consistently higher than the national average (National Center for Education Statistics, 2012). The 2011 dropout rate for African American students was 8% and 13% for Hispanic students; however, these percentages did not account for those African American and Hispanic youth who were incarcerated (Child Trends, 2013). The NAACP (2013) reported that African American and Hispanic males comprised 58% of all juvenile prisoners in 2008. Moreover, in a study by Troy and Lonnie (2012), results showed that in 2011, the chance of an African American male and a Hispanic male being placed in state custody by the time they

were 16 was 1 in 30 and 1 in 83 respectively, as compared to White males (1 in 151 Additionally, African American and Hispanic youth are four times more likely to drop out of school as compared to Caucasian and Asian youth (Child Trends, 2013).

Even with the new calculations, dropout rates vary by state and historically have tended to be higher in states from the south. According to the Alliance for Excellence in Education (2013), the 2011 high school graduation rate for the state of Alabama was 71.8%; this rate placed the state of Alabama in the 45th rank nationally of state graduation rates, however, more present data show that Alabama with a graduation rate of 80% which means graduation is on the increase. Even with this increase in graduation rate for the state of Alabama, there still is a substantial gap between certain subgroups. In 2011 graduation rates for specific groups of students were alarming: 62% of economically disadvantaged students; 54% of African American students; 52% of Hispanic students, and 77% of American Indian students (Schotts Report, 2013). Moreover, 10% of Alabama high schools are considered "dropout factories," which is defined as high schools where less than 60% of students graduate. Many ethnic minority students are over-represented in such schools (Alliance for Excellence in Education, 2013).

High school graduation is a major developmental milestone, and it is the start toward a productive adulthood (America' Promise Alliance, 2013; Balfanz, Bridgeland, Bruce, & Horning-Fox, 2013). Youth who enter adulthood without a high school degree enter a world with occupational, economic, social, even health disadvantages (America's Promise Alliance, 2013; Balfanz et al., 2013; Bjerk, 2011; Bowers & Sprott, 2012; Child Trends, 2013). When compared to those with high school degrees, persons who drop out of school without obtaining a high school degree (a) tend to have higher rate of unemployment, are under-employed, and/or earn substantially less (APA, 2012; Campolieti, Fang, & Gunderson, 2010; Child Trends, 2013);

; (b) have higher crime and incarceration rates and require more assistance from social services (America's Promise Alliance, 2013; Campolieti et al., 2010); (c) are less involved in community and political activities (APA, 2012; Bjerk, 2011; Bowers & Sprott, 2012; Child Trends, 2013); and (d) suffer more health problems and have a shorter life expectancy than individuals with high school degrees (America's Promise Alliance, 2013; APA, 2012; Child Trends, 2013).

The high dropout rates in the United States also have a negative impact on the society at large (Alliance for Excellent Education, 2013; APA, 2012; Bjerk, 2011). Dropping out of high school has been shown to have a positive relationship to increased crime rates (America's Promise Alliance, 2013; Bjerk, 2011). Medical costs and health-related expenses increase for all of America when students do not graduate; these include costs for crime-related medical expenses, expenditures for uninsured medical care, and overall increases in medical insurance premiums and out-of-pocket health care payments (Alliance for Excellent Education, 2011).

Generally, dropping out of school is not a single act that results from a single cause, it is a gradual process stemming from a variety of experiences and barriers. Research has noted relationships between specific family and home life factors and high school completion. Structural family characteristics such as single-parent households, parents without high school degrees themselves, and low family socioeconomic status have been shown to contribute to dropping out of high school (Bowers, e.g., Larocque, Kleiman, & Darling, 2011; Lemon & Watson, 2011; Stewart, 2008; Strom & Boster, 2011; Sprott, & Taff, 2013). Indeed, low socioeconomic status has been consistently correlated with poor student achievement as well as increased student dropout rates (Bowers et al., 2013; Bryk & Thum, 1989; Hammond, Linton, Smink, & Drew, 2007; Pong & Ju, 2000; Rumberger & Lawson, 1998). In addition to parent and family demographic factors, there are also specific parent and family relational factors that have

been shown to relate to dropping out of school. For example, students who lack positive family social support, experience substantial family stress, and/or do not receive supportive communication from parents are at increased risk for dropping out of school; therefore, if family expectations concerning completing school is not valued, the chances of the student dropping out tend to increase (Benner, 2011; Christenson, Lemon & Watson, 2011; Sinclair, Lehr, & Godber, 2001; Strom & Boster, 2011).

In addition to the home and family factors that may have an impact on student academic success or failure, there are many elements of the school context that are related to students dropping out of school (Borden, 2012; Lee & Burkam, 2003; Linders & Nicholson, 2001; Rumberger & Lin, 2008). Rumberger and Lin (2008) noted that three school factors that contribute to dropout rates are (a) student body demographics, (b) school resources, and (c) school policies and practices. As mentioned previously, a student attending a school comprised of low-income, ethnic minority youth is more likely to dropout than a student attending a middle- or higher-income school with a more homogeneous student body (Black et al., 2013; Borden, 2012). It is often the lack of school resources that contribute to increased dropout rates, the most common being lack of programs and curricula that focus on building at-risk students' academic, social, and work skills and the lack of supportive relationships and a sense of belonging to the school (Akos & Galassi, 2004; Rumberger & Lin, 2008). The primary school policies that are related to increased dropout rates are those "that cause students to involuntarily withdraw from school" (Rumberger, 2001, p. 21). Such policies include rules on low grades, attendance, and misbehavior (Rumberger, 2008). Additionally, when students feel as if they do not belong, or their knowledge path is not a successful one, they begin to become disengaged with school (Lee & Burkam, 2003: Rumberger, 2001; Rumberger & Lin, 2008).

As students' progress through school, they often must confront numerous transitions that can significantly impact their academic, emotional, cognitive, and social growth and success. Transitioning, whether it is from school to school or from grade to grade, can be extremely difficult for students, and it can be especially difficult for those who are already estranged from their schools and are facing academic challenges (Cohen & Smerdon, 2009; Fredricks et al., 2011; Schiller, 1999; Smith et al., 2013). The transitional period at 9th grade — from middle school to high school — is one of the riskiest times of students' learning careers (APA, 2012; Kennelly & Monrad, 2007). The 9th grade student dropout rate is higher than all the other years of school combined (Cohen & Smerdon, 2009; Kennelly & Monrad, 2007).

Research (APA, 2012; Christenson et al., 2012; Goodenow, 1993, 1994; Hammond et al., 2007) has indicated that a number of strategies can be very helpful in reducing the dropout rate, especially among those youth most at risk. Many of these strategies are aimed at the 9th grade transitional stage (Christenson et al., 2012; Hammond et al., 2007). The similarities among effective dropout prevention programs for 9th grade students include a focus on building students' sense of belonging to school so that they are connected to and engage with the school teachers, staff, and administrators (Hammond et al., 2007; Lee & Smith, 2001; Osterman, 2000). When students begin to believe they have a voice and that they fit in, they can start to trust and engage in their academic environment. When students are able to establish trust in an environment, healthy relationships can flourish (Osterman, 2000).

It is vital that programs be developed to assist students to stay engaged in school and that these programs be assessed to determine their effectiveness and ways in which they can be improved (APA, 2012; Child Trends, 2013; Christenson et al., 2012). Programs that focus on the risk period of 9th grade and are conducted with at-risk youth, such as low-income and ethnic

minority youth, are especially vital. One such program, Truman Pierce Institute's Building Individual Capacity for Success (BICS) at Auburn University, Alabama, is a strengths-based high school completion dropout prevention program created to work with 200 students transitioning into high school in both rural and urban schools in Alabama. Building Individual Capacity for Success (BICS) is a program that, based on dropout prevention research, provides academic programming and services to enhance student engagement while focusing on the strengths and interests of the students involved. The program components include mentoring, leadership skill development, service learning, and college/career awareness. The program is built on the supposition that connecting students to a programmatic environment that affords them opportunities, skills, and resources for school success during a perilous developmental period should increase positive student academic outcomes. The BICS program was started in 2008, and with recent renewal funding, it will continue through 2014; however, for the purpose of my dissertation research I will focus only on one year of data.

Problem Statement

Ethnic minority students are at increased risk for leaving school prematurely as compared to their White peers; this risk increases for male students and students from low-income households (Alliance for Excellence in Education, 2013; Child Trends, 2013; Duckenfield & Reynolds, 2013; NAACP, 2013). There are numerous programs that have been developed to increase student engagement and achievement, ultimately leading to reduced dropout rates. However, few dropout prevention programs that have focused on African American low-income students have been examined and published (Benner, 2011; Borden, 2012). Few studies have examined the outcomes of dropout prevention programs via all three theoretically valid

indicators of student engagement; behavioral, psychological/emotional, and cognitive (Christenson et al., 2008; Duckenfield & Reynolds, 2013).

Building Individual Capacity for Success (BICS) is an outreach program designed to provide services to assist students identified as at risk of dropping out of high school. The design of the BICS program was to help students develop the appropriate leadership skills they need to be successful in high school, as well as help them develop life skills. Students had to meet certain criteria to be followed by the BICS program: 1) having reading and math scores below grade average; 2) having significant attendance problems; and/or 3) having significant discipline referrals from teachers, administrators, and/or counselors. The BICS curriculum aimed to increase participants' awareness of skills related to action research, service learning, globalization, leadership development and mentoring.

Significance of the Study

There have been few published evaluation studies on dropout prevention programs that have been established through community-university partnerships (see Pyne, Scott, and Long, 2013, for an exception). This study will enhance the body of literature on dropout prevention evaluation by (a) evaluating a dropout prevention program geared toward African American students from low-income households; (b) examining the impact of the program on indicators of students' behavioral, psychological/emotional, and cognitive student engagement; and (c) providing information for prevention programs developed out of community-university partnerships.

Purpose of the Study

The purpose of this research was to investigate whether students' sense of belongingness improved when they participated in the BICS program. The study also examined the degree to

which there were differences in the academic performance and the number of discipline referrals and absences for students who engaged in the BICS program when compared to students with similar characteristics that did not participate in BICS.

Research Questions

The following research questions guided the study:

1. To what extent were there differences in student behavior, as measured by student attendance and discipline referrals, between students enrolled in the first year of the BICS program and students not enrolled in the BICS program?

2. To what extent were there differences in student achievement, as measured by GPA, between students enrolled in the first year of the BICS program and students not enrolled in the BICS program?

3. After one year in the BICS program, to what extent did participating students' perceptions of belongingness change?

Limitations

All studies have limitations and assumptions. One limitation of this study was that the data used were from the 2008 pilot year when 87 students participated in the BICS program; as such, the sample size for the study is small. All of the 87 participants were a fairly homogenous group with regard to ethnicity and income level. This can be seen as strength of the study being these students are at increased risk for dropping out of school (Child Trends, 2013; Christenson et al., 2012). However, results from this study cannot be generalized to studies that have participants who are from different ethnic or income groups, as well as other schools and geographical areas. Another limitation was that it was unknown as to whether the school personnel in charge of collecting data kept complete and accurate records. However, these data

were maintained in the state's STI© Assessment platform for each school, so it is likely that any errors in data entry were minimal.

Delimitations

The study had delimitations. The study focused on students who participated in an evaluation study of the BICS pilot program. The small sample size precluded the examination of the potential moderating effects of student gender, ethnicity, disability, and related factors on student academic outcomes. Moreover, the evaluation results from the fully implemented BICS program may differ from those found in this study. The academic constructs were delimited to student attendance, discipline referrals, GPA, and students' sense of belongingness. The constructs measured were theoretically valid indicators of behavior, psychological/emotional and cognitive engagement (Christenson et al., 2008; Duckenfield & Reynolds, 2013; Fredricks et al., 2011).

Assumptions

Assumptions within this research begin with the positivist philosophical approach taken in quantitative research. In light of the positivist approach, it is important to consider that the BICS program itself was likely one among numerous factors influencing student outcomes. Other school, family, peer, and individual factors certainly played a role in the results; however, all such factors cannot be considered within one dissertation. Moreover, as this study is a quantitative non-experimental study, one cannot state that participation (or lack of participation) in the BICS program *caused* any outcome (Rosenthal & Rosnow, 2008). What can be stated was that participation (or lack of participation) may have some association with the outcomes (Rosenthal & Rosnow, 2008).

Three additional assumptions were considered: (a) sample size, (b) data reporting accuracy, (c) the accurate operationalization of constructs, and statistical assumptions as they relate to statistical analyses for hypothesis testing. The first assumption regarding sample size was that the sample size was large enough to have power to detect significant differences. A second assumption was that students honestly provided information on the surveys and that the data were entered accurately into the school software. The third assumption was that the variables were operationalized accurately and measured correctly.

Definitions of Terms

Building Individual Capacity for Success (BICS): one of the initiatives of the Truman Pierce Institute of Auburn University which provides services to enhance student engagement and successful high school completion while focusing on the strengths and interests of the students involved. BICS is funded by the AT&T Foundation's ASPIRE program.

Dropout: a term which represents the percentage of 16- through 24-year-olds who are not enrolled in school and have not earned a high school diploma or its' equivalency. Now this data includes civilian noninstitutionalized population; however, it excludes persons in prisons, persons in the military, and other persons not living in households (National Center for Education Statistics, 2012)

Dropping out: the term used when a person enrolled in a program of academic studies does not eventually complete it (Hammon et al., 2007).

Sense of belongingness: the need of having the sense of being accepted or to belong (Christenson et al., 2012). Goodenow (1993) extended the sense of belonging literature by considering it within the school context: she argued that student sense of belonging as being

comprised of four factors, in that the student feels accepted, respected, included, and supported by school staff, faculty, and peers.

Student engagement: refers to "the quality of a student's connection or involvement with the endeavor of schooling and hence with the people, activities, goals, values, and place that compose it," the construct is an incorporation of motivational, behavioral, social and cognitive components (Skinner, Kinderman, & Furrer, 2008, p. 2)

Transitioning: a point at which students move from one grade or school to another grade or school education process. Academic transition has been defined by Schiller (1999) as "a process during which institutional and social factors influence which students' educational careers are positively or negatively affected between organizations" (p. 216–217).

Organization of the Study

The dissertation started with Chapter 1, which was an overview of the study, inclusive of background, research questions, and relevant definitions. The next chapter, Chapter 2, is a review of the literature. This review covers topics relevant for this study such as predictors of dropping out of school, aspects of student engagement and facilitators of engagement; and student sense of belonging. Chapter 3 is the research methods section, and this chapter includes the research design and approach, instrumentation, data collection and analyses. The study results are presented in Chapter 4. The study concludes with Chapter 5, which contains discussions of the findings, implications for practice, and recommendations for future studies.

CHAPTER II. REVIEW OF LITERATURE

Introduction

Dropping out of school has profound consequences for youth in the United States that often lead to far-reaching societal and economic problems (APA, 2012; Caspi, Wright, Moffitt, & Silva, 1998; Child Trends, 2013; Hammond et al., 2007; Neil, Eby, & Fursenberg, 2008). Students who drop out of school are less likely to be employed; the unemployment rate for high school dropouts consistently averages around 18% (Alliance for Excellence in Education, 2011; APA, 2012; American Promise Alliance, 2013; Child Trends, 2013). If employed, high school dropouts earn substantially less than those who have completed high school (APA, 2012; American Promise Alliance, 2013;. Balfanz, Bridgeland, Bruce, & Horning-Fox, 2013). High school dropouts commit crime at a higher rate and have higher rates of incarceration than persons with a high school degree (Bowers & Ryan-Sprott, 2013; Campolieti, Fang, & Gunderson, 2010; Neil et al., 2008). They are also more likely to have poor health and be less engaged politically (Campolieti et al., 2010; Child Trends, 2013).

In addition to individual problems faced by high school dropouts, there are societal and economic costs that result from students dropping out of school. For example, it has been posited that 75% of crimes are committed by high school dropouts (Balfanz et al., 2013). With regard to economic costs, the dropout students from the 2010 year alone could, over their lifetime, cost the nation close to $350 billion in lost wages (Alliance in Excellence in Education, 2011).

The Alliance for Excellence in Education (2013) is one of many national organizations and federal departments, including the Department of Education (as of 2010), that utilize a graduation rate indicator to assess state's high school completion rates (Duckenfield & Reynolds, 2013).

While dropping out of high school across the United States has decreased since the late 1960s (Child Trends, 2013), it remains a profound concern in the state of Alabama, where this study occurred. Alabama has had a consistent problem with low high school completion rates, ranking no higher than 42nd in the nation with regard to high school graduation rates since 2000 (Alliance for Excellence in Education, 2013). The 2011 high school graduation rate for the state of Alabama, where this study was conducted is 72%; this rate placed the state of Alabama in the 45th rank nationally for drop outs (Alliance for Excellence in Education, 2013). There are numerous interventions that have been shown to increase student persistence in school (Balfanz et al., 2013; Borden, 2012; Dembo & Gulledge, 2008; Hammond et al., 2007). Core to the most effective dropout prevention programs are the connections and relationships students develop with their teachers, mentors, and peers. Having a sense of belongingness in school — having a sense of purpose — and being engaged in school can profoundly affect students' academic orientation, goals, and persistence (Goodenow, 1993; Hammond et al., 2007; Rumberger, 1995, 2011).

In this chapter, the relevant research literature is explored to facilitate understanding the development of, and interpreting the results of, this study. This chapter starts with a presentation of high school dropout data on a national and state level; this is followed by a review of multi-level (i.e., community, school, and family, individual) risk factors for dropping out of school. The chapter then shifts focus to address and discuss the conceptual framework, and a section is

devoted to student sense of belonging and student engagement. The application of these conceptual approaches are reviewed in relation to the middle to high school transition period as well as effective components (i.e., mentoring, service learning, leadership) of dropout prevention programs for students transitioning from middle to high school.

United States and Alabama High School Dropout Rates

While the nation is experiencing a serious problem with students leaving school early, some data have suggested that dropout and graduation rates have improved at the national level. The differences in measurement of graduation rates and dropout rates should first be clarified (see Table 1). Graduation rates are most commonly measured via cohort rates, as mentioned above (and restated in Table 1), or freshman graduation rates, which is the percentage of high school freshmen who receive a high school degree four years after they have started ninth grade. Dropout rates are typically measured either as annual (event) or status dropout rates. The annual (event) dropout rate is the percentage of students in both private and public school who left school without getting a degree within a specific year (Alliance in Education, 2013; Duckenfield & Reynolds, 2013). The status dropout rate is a count during a specific year of a cohort of young adults — usually 15 or 16 to 24 years of age — who do not have a high school degree or equivalent (Alliance in Education, 2013; Duckenfield & Reynolds, 2013). Because dropout rates — both annual and status — are a one-year snapshot of individuals without a high school degree or equivalent, they will be significantly lower than graduation rates, which measure changes in the number of students leaving school over a period of time. As an example, the United States' 2011 status dropout rate was 7%, but its 2011 cohort graduation rate was 78.2% (Child Trends, 2013; National Center for Education Statistics, 2013).

Table 1

Definitions of Dropout Rates and Graduation Rates

Name	**Definition**
Cohort Graduation Rate	The graduation rate is calculated by the formula = $cohort^2/cohort^1$, where $cohort^2$ is the number of students who graduated with a regular high school diploma in four years and $cohort^1$ is the number of students who entered ninth grade eight years earlier and graduated with a regular high school diploma four years earlier
Freshmen Graduation Rate	The percentage of high school freshmen who receive a high school degree four years after entering ninth grade
Annual (Event) Dropout Rate	The percentage of student (private and public) who dropped out of high school (i.e., 9^{th}–12^{th} grade) without earning a degree in a specific year
Status Dropout Rate	The percentage of students within a specific age range, such as16 to 24 years of age, who are not in school and who have not obtained a high school degree or equivalent, regardless as to when they dropped out of high school

Note. Information from Alliance in Education (2013) and Duckenfield & Reynolds (2013)

Although the 2011 graduation rate for high school students in the United States of 78.2% was higher than the 2009 rate of 75.5%, there were still over 1.3 million students who did not graduate high school on time that year (Alliance for Excellence in Education, 2013; Duckenfield & Reynolds, 2013). Moreover, certain school populations remain particularly at risk for

dropping out of school and are disproportionately represented in dropout rates. The national graduation rates for Black males are one area of concern considering in 2009–10 the national average for Black male students was 52%, as opposed to White, non-Latino males which was 78%. The national Black/White male graduation gap, however, only decreased by 3 percentage points over nearly the last decade to 26 percentage points (Schotts Report, 2012). Also, this is the first year that more than half of the nation's Black males in 9th grade graduated with regular diplomas four years later. The graduation rates for students attending low-income urban high schools remained very low, ranging from 47% to 70% in 2011 (National Center for Education Statistics, 2013). The graduation rates of ethnic minority youth have been consistently 25 percentage points lower than White and Asian youth (Alliance for Excellence in Education, 2013; APA, 2012; Duckenfield & Reynolds, 2013; National Center for Education Statistics, 2012). For example, in 2011, 81% of Asian students and 77% of White students graduated from high school, as compared to 56% of Hispanic students, 54% of African American students, and 51% of Native American students (National Center for Education Statistics, 2012).

Risk Factors for Dropping Out of High School

In order to address the dropout problem, it is important to understand and be able to identify risk factors for dropping out of high school. Identifying these factors will provide information about how to effectively support students who are in high school through to graduation (Black, Grenard, Sussman, & Rohrbach, 2010; Black, Devereux, & Salvanes, 2013; Bowers, Sprott, & Taff, 2013; Christenson, Palan, & Scullin, 2009). The body of research knowledge has strongly established that community, school, family, and individual factors all contribute greatly toward predicting whether a student is at risk for dropping out of school (Balfanz et al., 2013; Black, et al., 2010; Black, Devereaux & Salvanes, 2013; Hammond et al.,

2007; Hawkins & Needle, 2013). Research on each of these areas is presented on the next few pages.

Community risk factors for dropping out of high school. There are many community level risk factors for dropping out of high school, and some parallel those at the school and family level (Balfanz et al., 2013; Black, et al., 2010; Black, Devereaux & Salvanes, 2013; Burrus & Roberts, 2012; Hammond et al., 2007). The community risk factors for dropping out have been defined across two domains: (a) community location and demographic factors, and (b) community environmental factors (Balfanz et al., 2013; Black, et al., 2010; Black, Devereaux & Salvanes, 2013; Burrus & Roberts, 2012; Hammond et al., 2007). With regard to community location and demographic factors, higher dropout rates exist in communities that have a large percentage of ethnic minority residents (Black, et al., 2010; Black, Devereaux & Salvanes, 2013; Burrus & Roberts, 2012). The percentage of ethnic minority residents often overlaps with poverty level (Duckenfield & Reynolds, 2013). For example, in 2011, the states with the lowest student graduation rates, such as Alabama (71.8%), Georgia (67%), and the District of Columbia (59%), also had the highest ethnic minority population rates, 32 %, 42%, and 65%, respectively (Duckenfield & Reynolds, 2013).

With regard to dropout rates across urban versus rural communities, research has documented changes in the past ten years, from the early 2000s to the early 2010s, recognizing the importance of the poverty level of communities and families, as well as peer and individual factors (Balfanz & Legters, 2006; Jordan, Kostandini, & Mykerezi, 2012). In a seminal study by Balfanz and Legters (2006), the researchers examined graduation rates at over 1,000 urban, suburban and rural schools from 1993 to 2002. The results showed that 61% of urban schools versus 5% of rural schools were more likely to have a 50% graduation rate in four years (Balfanz

& Legters, 2006). However, in a recent study by Jordan, Kostandini, and Mykerezi (2012), wherein the researchers examine dropout rates across urban and rural communities in consideration of family and individual factors, the results showed that the "high school dropout rates [of 77% were] similar throughout the urban-rural continuum" (p. 18). Moreover, results from Jordan et al.'s (2012) study showed that specific family (i.e., single-parent, low-income, high number of children under 18 living at home), peer (i.e., high gang membership) and individual (i.e., Black or Hispanic male) factors emerged as significant predictors of dropping out of high school regardless of community type. Moreover, the Rural School and Community Trust (2010, 2013) has recognized 800 rural school districts with the highest dropout rates. These 800 rural school districts are among the most poverty-stricken in the nation, and they have the highest group of ethnic minority students, collectively comprising over 50% of the students population (Rural School and Community Trust, 2010, 2013). Results from these studies have strongly suggested that high dropout rates are tied to community poverty levels and percentage of ethnic minority residents (Jordan et al., 2012; Rural School and Community Trust, 2010, 2013).

There has been substantial theoretical and research attention (e.g., Browning, Feinberg, & Dietz, 2004, Sampson, 2012) given to community environmental factors related to dropping out of high school. One community environmental factor that has been linked to higher rates of dropping out is residential mobility (Rumberger 2011; Sharkey & Sampson, 2010; South, Haynie, & Bose, 2007; Wodtke, Harding, & Elwert, 2011). It has been posited by some researchers that high community residential mobility influences dropout rates indirectly, via the development in children of lower levels of community and school attachment (Rumberger, 2011; Sampson, 2012; South et al., 2007). Another community environmental factor associated

dropping out of high school is community social capital (Rumberger, 2011; Sampson, 2011; Galster, 2010). Galster (2010) posited that dropping out of school was most likely to occur in a community lacking social capital, specifically (a) negative collective socialization, or conformity to local social norms that did not value an education, (b) lack of social networks, described as "weak ties" with neighbors, and (c) lack of social cohesion and connectedness and control of neighborhood juveniles (p. 2).

School risk factors for dropping out of high school. When examining school risk factors, three overarching school factors that predicted higher dropout rates were related to (a) school demographics, such as percentage of low-income and ethnic minority students; (b) school characteristics, such as suspension rates, school size, and type of curriculum offered; and (c) school climate, including administrator and teacher warmth and student supportiveness (Duckenfield & Reynolds, 2013; Lagana-Riordan et al., 2011; Rumberger, 2011; Strom & Boster, 2011). With regard to school demographics, school poverty has been shown to be the leading school factor of dropping out of high school (Duckenfield & Reynolds, 2013; Rumberger, 2008, 2011; Strom & Boster, 2011). To truly understand the impact of poverty, one must be able to define what it means. Ruby Payne gives a working definition of poverty to be "the extent to which an individual does without resources" (p. 7) As stated by Duckenfield and Reynolds (2013), "the higher the percentage of a school's students living in poverty, the higher the dropout rate" (p. 7). Moreover, low-income schools tend to have higher numbers of ethnic minority students, which makes these students at greatest risk for dropping out of high school (Duckenfield & Reynolds, 2013).

A review of the literature — even going back to the 1980s — has shown that school characteristics, such as school suspension rates, school size, and curriculum often do not work in

isolation but instead interact with school climate and other factors to influence dropping out (Bryk & Thum, 1989, Lee & Burkam, 2003; Lee & Smith, 1995; Lagana-Riordan, 2011; Rumberger, 1995, 2008, 2011). Research on suspensions at the school level is relatively minimal. In a seminal study by Lee et al. (2011), who conducted a study on 289 public high school schools in Virginia, the researchers examined whether school-level suspension rates significantly predicted dropout rates. The research results showed that, after controlling for school demographic and resource variables (e.g., school racial composition, percentage of students eligible for Free and Reduced Lunch, urbanicity, per pupil expenditures), the school suspension rate was significantly associated with increased dropout rates, with the effects being more pronounced with regard to African American student dropout rates than White student dropout rates (Lee et al., 2011). Lee et al.'s (2011) study is unique in its examination of school suspension rates as predictors of dropout rates. However, this study has not been replicated. Moreover, school climate factors were not considered in the study models, nor did the researchers examine the predictors of school suspensions (Lee et al., 2011). In a study by Bachman, Gunter, and Bakken (2011) conducted with over 7,500 middle school to high school students in Delaware, the researchers examined school- and student-level predictors of climate of school fear. Bachman et al. (2011) found that the school suspension rate predicted increased climate of school fear at the 5th, 8th, and 11th grades.[1] Moreover, many individual risk factors for dropping out of school were also associated with increased suspension rates. For example, ethnic minority male students, especially African American and Hispanic male students, and students with behavioral problems more often receive school suspensions than do their peers (Rumberger, 2011; Skiba et al., 2011; Storer et al., 2012).

[1] The additional predictors of school climate of fear were student victimization and teacher-to-student ratio.

Researchers have posited that large school sizes create a sense of anonymity and unimportance in the students, which in turn can lead to student disengagement from school (Lagana-Riordan et al., 2011; Rumberger, 1995, 2008, 2011). Indeed, as seen in Bachman et al.'s (2011) study, a large teacher-to-student ratio may be associated with higher levels of students' perceptions of a school being unsafe, a place to fear. Often in large schools, students do not receive the individual attention that they may need, which can lead to poor academic outcomes and dropping out of school (Lagana-Riordan et al., 2011; Rumberger, 1995, 2008, 2011). With fewer students, teachers have the ability to track students' progress and discuss students' goals on an ongoing basis (Lee & Burkam, 2003; Rumberger, 1995, 2008, 2011). Individual attention and the development of close relationships with administrators, teachers, and staff can promote school engagement and a sense of belonging in students, which in turn reduces the likelihood of dropping out (Lagana-Riordan et al., 2011; Rumberger, 1995, 2008, 2011).

Earlier studies (e.g., Bryk & Thum, 1989; Lee & Burkam, 2003; Lee & Smith, 1995) have shown that schools with an academic curriculum have lower rates of students dropping out. However, current research (e.g., Duckenfield & Reynolds, 2013; Lagana-Riordan et al., 2011) has shown that the type of curricula is secondary to instructional practices that engage the student and build students' connections with school administrators and teachers. For example, research has shown that instructional approaches that include role- playing and peer coaching have led to decreases in dropping out of school (Duckenfield & Reynolds, 2013; Lagana-Riordan et al., 2011). Another beneficial instructional practice shown to be effective is having an integrated curriculum with service learning and/or leadership components, where attention is focused on the interrelation of learning subjects and the applied use of learned information (Duckenfield & Reynolds, 2013). Some additional effective practices have been (a) parent

involvement, (b) social skills instruction, and (c) after-school programs that "fill the afternoon and summer 'gap time'" (Duckenfield & Reynolds, 2013, p. 45). However, Hammond et al. (2007) suggested that developments in school organization over the past years, such as increasingly larger school sizes and diversification of curriculum, have contributed to a heightening of students leaving school early.

Family risk factors for dropping out of school. The family risk factors for dropping out of school tend to occur across two domains: (a) family demographics, and (b) family involvement and engagement in the academic process (Burrus & Roberts, 2012; Hawkins & Needle, 2013; Hines & Holcomb-McCoy, 2013; Rumberger, 2011; Toldson & Lemons, 2013; West-Olatunji, Sanders, Mehta, & Behar-Horenstein, 2010). As seen on the community and school level, family poverty is one of the leading family predictors of dropping out of high school, as is the highest level of parent education, especially mothers' highest level of education (Burrus & Roberts, 2012; Hawkins & Needle, 2013). Numerous student and family variables were examined as predictors of dropping out in a longitudinal study by Hawkins and Needle (2013) conducted with over 20,000 adolescents using data from the National Longitudinal Study of Adolescent Health. The results from Hawkins and Needle's (2013) study showed that family poverty and highest level of maternal educator emerged as significant predictors of dropping out of high school[2]. Family ethnicity did not play a role in predicting dropout status in Hawkins and Needle's (2013) study. However, in a study by Carneiro, Meghir, and Parey (2010) using data from over 12,000 adolescents (ages 15 to 22) from the National Longitudinal Survey of Youth, the results showed that low maternal education level was a risk factor for poor school academic outcomes and dropping out of school more so for African American than White families.

[2] The other variables that predicted dropping out of high school were if the student was sexually active and smoked cigarettes, student delinquency, student GPA, and lack of student aspirations to attend college.

Although the researchers did not examine family involvement and engagement factors, Carneiro et al. (2010) argued, "educated mothers invest more in their children" (p. 25).

Students who stay in school tend to have more involved, concerned, and engaged parents (Strom & Boster, 2011; Toldson & Lemons, 2013; West-Olatunji et al., 2010). Indeed, in a case study conducted with low-income ethnic minority parents, West-Olatunji et al. (2010) found that poverty played less of a role in influencing dropping out of high school when low-income parents were involved and engaged with their children's learning and instructors. In contrast, parents who have negative attitudes about school or low expectations about their child's academic success often contribute to a student poor performance (Rumberger, 2011; Somers, Owens, & Piliawsky, 2010; West-Olatunji et al., 2010). There is substantial research evidence that parental expectations held about a child and his/her academic proficiency will likely produce child outcomes consistent with those expectations (Dusek, 2009; Rutchik, Smyth, Lopoo & West-Olatunji et al., 2010; Somers et al., 2010). In a seminal study by Rutchik et al. (2009), who utilized data from the Panel Study of Income Dynamics collected on 884 elementary-school-aged children and their parents, the researchers examined whether child aggression was related to parental expectations about child academic outcomes. Results from Rutchik et al.'s (2009) study showed that early aggressive behavior in children predicted lowered parental educational expectations for their children. These lowered parental educational expectations then influenced both reduced parental involvement and increased child aggressive behavior longitudinally, to high school (Rutchik et al., 2009). The results from Rutchik et al. (2009) highlight the importance of interactional influences between the child and parent.

Individual risk factors for dropping out of high school. The risk factors within the individual for dropping out of high school tend to fall into the domains of (a) student

demographic factors, and (b) student engagement factors (Alliance for Excellence in Education, 2011; Burrus & Roberts, 2013; Child Trends, 2013). With regard to student demographic factors, African American and Hispanic students are more likely to drop out of school than are Caucasian and Asian students (Alliance for Excellence in Education, 2011; Burrus & Roberts, 2013). Students who come from low income backgrounds are at risk for dropping out of school than are students who come from middle or high-income backgrounds (Alliance in Excellence in Education, 2011; Burrus & Roberts, 2013). Another notable difference is gender. Males are at higher risk for dropping out of school than are females (Burrus & Roberts, 2013). Students with learning disabilities, emotional problems, and depression are also more at risk for dropping out of school than are students without these disabilities and issues (Burrus & Roberts, 2013; Quiroga, Janosz, Bisset, & Morin, 2013; Rumberger, 2011).

With regard to student engagement factors, studies have shown that student attendance can have a profound effect on dropping out of high school (Black, et al., 2010; Black, Devereaux & Salvanes, 2013; Bridgeland et al., 2006; Burrus & Roberts, 2012; Hawkins & Needle, 2013; Rumberger, 2011). In a study on over 10,000 high school students in the U.S. commissioned by the Bill and Melinda Gates Foundation, Bridgeland et al. (2006) found that 62% of students who dropped out of high school were often absent from school the year before they dropped out. Students reported that during this year, they fell into "a pattern of refusing to wake up, skipping class, and taking three hour lunches … [that] made them less willing to go back" (Bridgeland et al., 2006, p. 3). Other studies have documented that poor attendance and a high number of discipline referrals in eighth and ninth grade predicted not only an increased likelihood for dropping out of school but also delinquent behavior and substance use in late adolescence and early adulthood (e.g., Black, Devereaux, & Salvanes, 2013; Burrus & Roberts, 2012; Hawkins &

Needle, 2013). Students who eventually drop out are also more likely than those who complete high school to (a) not participate in afterschool or extracurricular activities; (b) have repeated at least one grade, (c) be sexually active and use drugs; (d) engage in delinquent and problem behaviors; (e) have lower test scores then those who graduate, and (f) have more frequent absences (Balfanz, et al., 2013; Burrus & Roberts, 2013; Hawkins & Needle, 2013; Lee & Burkam, 2003; Rumberger, 1995, 2011; Suh, Suh, & Houston, 2007). The dropout rate increases when these demographic student variables predictors exist within the context of community and family poverty (Black, et al., 2010; Black, Devereaux & Salvanes, 2013; Hawkins & Needle, 2013; Rumberger, 2011).

Individual student values and attitudes about school and education, especially as they pertain to a student's sense of belongingness and engagement, are contributing factors to why a student decides to drop out of high school (Bridgeland, Dilulio, & Morrison, 2008; Lee & Burkham, 2003). Often these individual values and attitudes start early and influence behavior even as early as elementary school (Christenson, Reschly, & Wylie, 2012). It has been well documented in the literature that students may begin to think about dropping out of school as early as third grade and spend time considering ways in which dropping out can take place (Bridgeland et al., 2008; Christenson et al., 2012; Duckenfield & Reynolds, 2013). Activities such as skipping classes or skipping school often become the norm for the students who see little value in education and are disengaged from school (Bridgeland et al., 2006; Christenson et al., 2012; Hammond et al., 2007; Lee & Burkam, 2003). For example, Lee and Burkam (2003), in a study with 3,840 young adults who had dropped out of high school, found that 55% of them reported skipping school regularly for at least a year before they actually dropped out.

Summary of Risk Factors for Dropping Out of School

While researchers have generally agreed that while there "is no single cause" for dropping out of high school, certain conclusions can be made based on results in the literature (Benner & Graham, 2009, p. 356). One conclusion is that poverty plays a significant role in dropping out of school, and that poverty multiplied at the community and family level can significantly worsen existing risk factors to increasingly impact dropout rates (Black, et al., 2010; Black, Devereaux & Salvanes, 2013; Hawkins & Needle, 2013; Rumberger, 2011). Results have also supported the premise that the more risk factors — more cumulative disadvantage — that a student has on the community, school, family, and individual levels, the more likely that he/she will leave high school without a degree (Burrus & Roberts, 2013; Cauley & Jovanovich, 2006; Christenson et al., 2012; Duckenfield & Reynolds, 2013). Researchers (e.g., Benner & Graham, 2009; Cauley & Jovanovich, 2006; Crouter, 2009 & Dotterer, McHale,) have further documented that while distal factors at the community and school level may be less influential than family and individual factors on dropping out of school; their impact is influenced by cumulative academic disadvantage. As stated by Benner and Graham (2009), the many "challenges [a student experiences] may have dire consequences for … [their] academic performance" (p. 358).

Student Leadership and Development Programs Promoting Continual Education or Work

Student Leadership and development programs are gaining eminence as a way to help adolescents become competent, engaged, and responsible adults. However, finding and developing programs that will meet the needs of all student needs is something of a task. Youth development programs should include, but not be limited to, opportunities and supports and help youth gain the competencies and knowledge they need to meet the daily challenges they face, as

well as, the increasing challenges they will face as they mature. Programs incorporating more elements of the youth development framework, that include strengths-based partnerships that utilize the assets found in schools, in families, and in communities to create strengths-enhancing environments, tend to promote caring and positive adult-child relationships, strengthen children's social support networks, foster academic success, and empower children with a sense of purpose and seem to show more positive outcomes.

Service- and work-based learning programs. There are several types of service- and work-based learning programs, such as school-to-work programs, business partnerships, and apprenticeships (Davis & Snyder, 2009). Davis and Snyder (2009) have argued that service- and work-based learning programs, regardless of type, should positively influence students if the curricula addresses and focuses on (a) enhancing student retention and graduation rates; (b) building student connections to post-secondary resources and supports; (c) providing students relevant and high quality service- and work-based experiences; and (d) fostering students' interpersonal, civic, social, and communication skills.

Results from numerous studies have confirmed that service- and work-based learning opportunities provide needed vocational programming for students and can offer access (e.g., via internships, mentor relationships, school-community partnerships) to employment and career paths for students interested in a specific field (e.g., Bennett, 2007; Curtin & Garcia, 2011; Dembo & Gulledge, 2008; Gentry, Rizza, Peters, & Hu, 2005; Guy, Sitlington, Larsen, & Rank, 2009; Plank, DeLuca, & Estacion, 2008; Poyrazli et al., 2008). In general, schools that have service- or work-based learning programs tend to have better student outcomes than schools that have a basic core curriculum; this is especially true for alternative schools (Plank et al., 2008). The body of research on service- and work-based learning program evaluation, however, is

complicated by (a) differing definitions of service- and work-based learning programs (e.g., Curtin & Garcia, 2011; Gentry et al., 2005); (b) the type of student sample (e.g., Guy et al., 2009); and (c) examination of diverse academic and work-related outcomes (e.g., Bennett, 2007). One of the most methodologically sound examples of evaluation research study was conducted by Curtin and Garcia (2011). Curtin and Garcia (2011), in a study with 57 students attending an alternative high school, compared the effectiveness of two programs, service learning and paid internships, on numerous student outcomes. What was interesting about the study was that work performance did not improve because of either type of program, and students in the service-learning program only had increases in the social competence outcomes of peer relations and school adjustment (Curtin & Garcia, 2011). The lack of significance between paid internships and social competence outcomes among students attending an alternative high school was also found in a study by Bennett (2007). These studies suggest that different programs may influence different student outcomes; moreover, service learning programs may more likely promote social competence skills than internships (Bennett, 2007; Curtin & Garcia, 2011).

Student factors may also play a role with regard to the effectiveness of service- and work-based programs (Bennett, 2007; Gentry et al., 2005; Poyrazli et al., 2000). Both Bennett (2007) and Gentry et al. (2005) found that students attending alternative high schools in a rural area noted positive social competence outcomes as a result of attending service- and work-based learning programs. These studies (Bennett, 2007; Gentry et al., 2005), however, did not examine student work-related behaviors or academic changes as a result of participation in these programs. Research by Poyrazli et al. (2000), in contrast, found that students in an urban environment who attended a service-learning program was part of the alternative school curricula were less likely to become truant or dropout. These students were also the ones more likely to

graduate because of their investment in the work program, possibly seeing a future in their field of study (Poyrazli et al., 2000). Some researchers have contended that student age is the biggest factor in determining whether service- or work-based learning programs are successful in deterring truancy and dropout rates (Davis & Snyder, 2009; Plank et al., 2008, Poyrazli, et al., 2000). Older students tend to see the need for a learning experience that can provide a foundation for professional development in their future (Davis & Snyder, 2009).

Building Individual Capacity for Success Framework

The Building Individual Capacity for Success (BICS) program was designed to empower student participants. It was developed so that the students of BICS could become responsible individuals and develop their capacity for success in high school and beyond high school years.

BICS is also a great example for students who may choose not to go college upon completing high school, and choose to enter the workforce. The BICS program exposes students to situations that will assist them in being successful adults. They are giving opportunities to participant in different activities that teach skills such as how to become more dependable, how to adapt to different environments, how to become critical and inventive thinkers, as well as how to collaborate with others. These skills not only are appropriate for educational purposes, this skill are essential for life. Research suggests that it is important to be able to model this type of behavior if students are to be successful if they choose to enter the workforce immediately upon graduating high school (Campoleiti, et al., 2010).

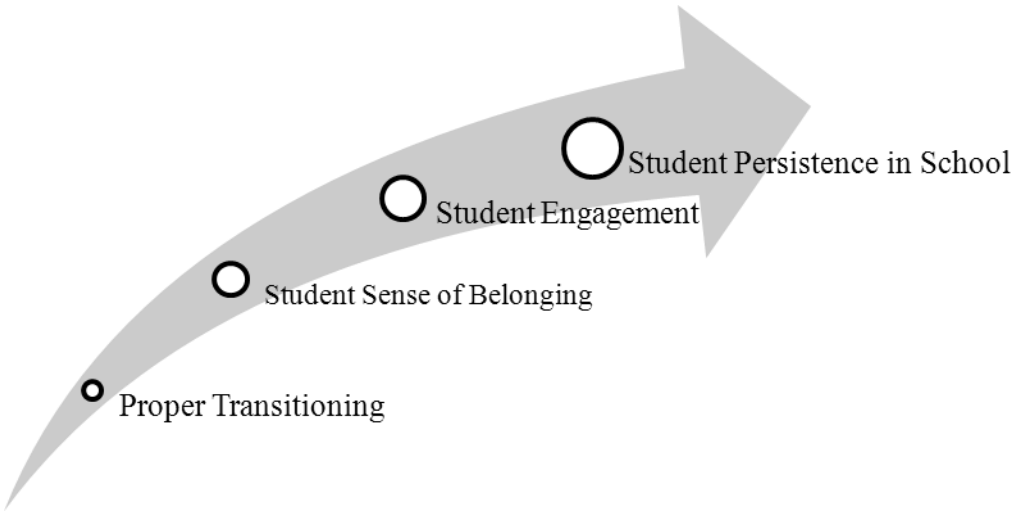

Figure 1. Conceptual Framework of this Study

Conceptual Framework of the Study

Researchers (e.g., Benner, 2011; Borden, 2012; Dembo & Gulledge, 2008; Duckenfield & Reynolds, 2012) have called attention to the importance of developing dropout prevention programs that are theoretically and empirically driven. There is a specific conceptual framework that comprises similarities to the foundations of the BICS program (see Figure 1). This framework involves focusing on the extent to which differences in student behavioral engagement (as measured by attendance and number of referrals), student achievement (as measured by GPA) and student' perception of belongingness between students enrolled in the BICS program and students not in the program. This conceptual framework is based on the assumption that identifying the areas where students do not properly transition nor engage in school affects their achievement. This framework is useful in determining where to focus efforts to help reduce high school dropout rates.

The first factor considered is the transition from middle school to high school. Research has consistently documented that transitioning to the ninth grade is the riskiest time for students because more students fail ninth grade than any other grade (Bowers & Sprott, 2012; Knesting, 2008; Williams & Richman, 2008). The stressors related to the transition to ninth grade, however, can be reduced via interventions that increase students' sense of belonging and student engagement. In turn, students' enhanced sense of belonging and engagement can lead to successful educational outcomes, including the completion of high school (Christenson et al., 2012; Goodenow, 1993, 1994; Hammond et al., 2007).

Proper transitioning from middle to high school. Academic transition has been defined by Schiller (1999) as "a time [when] institutional and social factors can determine whether students' educational careers are positively or negatively affected" (p. 216–217). The transitional period from middle school to high school has been documented as one of the riskiest times of students' learning careers. Student engagement declines as the student progresses through grades, being high in the elementary years, decreasing in middle school, and greatly decreasing in the high school years (Fredricks et al., 2011). Parallel to this decline is the decline of parental engagement with the school as well as a decline in student academic achievement, especially among students with learning and emotional disabilities (Cohen & Smerdon, 2009). For example, in a study by the Editorial Projects in Education (EPE Research Center) in 2006, the researchers found that students were most likely to become disengaged and fail or leave school between 8th and 9th grades; some states have experienced a 20% decrease of students from 8th to 9th grade (Kennelly & Monrad, 2007). Indeed, the student dropout rate between middle and high school is higher than all the other years of school combined (Cohen & Smerdon, 2009; Kennelly & Monrad, 2007).

There are numerous reasons as to why the middle to high school transition period is an especially risky time for students. Researchers (e.g., Cohen & Smerdon, 2009; Kennelly & Monrad, 2007) have argued that this transitional period creates a mismatch between the developmental stages of the adolescents and "the demands of the school environment" (Benner & Graham, 2009, p. 356). Students often face new social networks in high school that differ from those in middle school; these factors often include having a larger and more diverse group of peers at the high school level, the heightened importance of peer cliques, and dating and the development of romantic relationships (Benner & Graham, 2009). It has, however, been posited that the transitional period may be beneficial for students who were socially excluded by peers in middle school, as the high school environment may provide this student the ability to establish new peer relationships unencumbered by middle school cliques (Benner, 2011). Students also must deal with more academic demands at the high school level; dropping out of school occurs more often among students who were not academically prepared for high school work (Benner, 2011). Moreover, students become much more at risk for school failure and dropping out of school as they leave a middle school environment where teachers and administrators were supportive, encouraging, familiar with students, and where academic and social factors are not as demanding as they are in the high school milieu (Benner, 2011).

Student sense of belonging. Tied to both the middle to high school transition period and to student engagement is the student's sense of belonging, a construct that has been consistently documented as influencing student academic motivation and persistence (Baumeister & Leary, 1995; D'Angelo & Zemanick, 2009; Goodenow, 1993; Morrisette, 2011). Numerous theorists, starting with Maslow (1954) and his concept of hierarchy of needs, have documented the importance of belongingness not only in the school system but in life in general (e.g., Baumeister

& Leary, 1995; Deci & Ryan, 1991; Goodenow, 1993; Vallerand, 1997). It was Baumeister and Leary (1995) who proposed the belonging hypothesis that argued that "human beings have a pervasive drive to form and maintain lasting, positive, and significant interpersonal relationships" (p. 497). Goodenow (1993) was one of the earliest researchers who considered sense of belonging within the school context. She argued that student sense of belonging as being comprised of four factors, in that the student feels accepted, respected, included, and supported by school staff, faculty, and peers.

It has been well documented that if students do not form connections with positive role models, they will seek a sense of belongingness by developing attachments with groups who may impede their academic success. Kagen (1990) suggested at-risk students possess low self-images, are most likely not to have visions of pursuing higher education and have a negative attitude towards school because of a history of academic failure from previous years. Low self-esteem coupled with poor attitudes and beliefs about education, groups of which they do have a sense of connection — those who see little value in education — become more and more attractive (Hammond et al., 2007; Kagen, 1990). The reason students are attracted to these types of influences is that at least they receive care, support, and understanding from these individuals (Goodenow, 1993; Osterman, 2000). Thus, such students become more disengaged from school (Christenson et al., 2012). Given that a common perception among at-risk students is that the teacher just does not care about them or their education (Wehlage & Rutter, 1986), at risk students would rather be any place than a place where they feel they are of no importance. As dropping out of school is a process of disengagement from school — often in reaction to consistent and systematic school and instructor practices that show the student that they are not

worth caring about — dropping out of school is not just an individual path, but one that is influenced by the school context (Goodenow, 1993; Kagan, 1990; Osterman, 2000).

Core to the construct of sense of belonging is the student's sense of trust. Relationship building and how it influences trust was magnificently stated by Imber (1973):

> If the child's biological and social needs have been met regularly and predictably during the first year of life, then the child reacts, at least initially, to people in a trusting fashion. That is, he feels secure and confident when dealing with others and regards the world as fair and dependable. If, however, the child's needs have not been met, or have been gratified capriciously, he views the world as undependable. (p. 22)

What if this is the same reaction when a child meets a teacher for the first time? What if the child's whole view is tainted when he does not believe the teacher is concerned about his needs? If ongoing engagement and connectedness to school is to take place, then teachers must become aware that negative situations can arise and teachers must be educated about ways to handle these situations (Christenson et al., 2007). Most students who are at risk for dropping out may not understand how to react to challenges, or may tend to react the way they have reacted in the past because they do not trust that the adult that is responsible for guiding them is indeed someone in whom they can trust (Goodenow, 1993). Trustworthiness becomes the gatekeeper for connectedness, hence it becomes a way for students to feel a positive sense of belonging to their school, and this creates a pathway for positive academic learning. When a student feels supported in any environment, they are more likely to have positive outcomes no matter what they do. Having support, from friends and family makes the learning experience one that is valued not for the outcome, but the lesson learned from the experience (Goodenow, 1993, 1994).

The school environment has become increasingly influential in the success of a child. Many of the student's social relationships are based in the school environment; therefore, it is not surprising that a student's sense of belonging within the school context provides numerous academic and social benefits to the student (Goodenow, 1992, 1993; Osterman, 2000). Relationship building has been recognized by several researchers as being important not only at home, but also even in schools. Several studies have pointed out that strong school and student relationship is very important when seeking to understand how some students who are at risk achieve (Christenson et al., 2012; Larocque et al., 2011; Patall, Cooper, & Robsin, 2008; Strom & Boster, 2011). However as one seeks to understand the effectiveness of strong relationships and how they promote students achievement and success, one must understand the meaning of what makes relationships strong.

Factors related to student sense of belonging. Across studies (D'Angelo & Zemanick, 2009; Morrisette, 2011), students reported numerous qualities that enhanced their sense of belonging. Students in the study by Morrisette (2011) noted the importance of the instructor's ability to teach to the student's individual strengths and needs. D'Angelo and Zemanick (2009) furthermore found that students were drawn to teachers who provided flexible and enriching instruction while displaying genuine concern for their needs. In a study by Atkins et al. (2008), students reported that teacher/student rapport was a significant factor in changing their inappropriate behavior. Specifically, 59% of the students having a stronger sense of belonging reported attending class more (Atkins et al., 2008). In fact, Knesting (2008) noted that students who dropped out of school did so in part because of the lack of close relationships with their teachers. Indeed, in an evaluation study of a dropout prevention program for alternative high school students by D'Angelo and Zemanick (2009), they found that students' sense of belonging

concerning their teachers directly affected their decision to stay in school. Students were more likely to stay in school if they had teachers who provided individual attention to the student and were involved in tracking students' progress and discussing students' goals on an ongoing basis. In summary, research has shown that students sense of belonging increases when they have instructors and mentors who (a) were approachable, accessible, and showed genuine acceptance, care, and concern for the student; (b) encouraged students to build on their academic self-efficacy and strengths while minimizing their academic deficits; (c) had the ability to provide learning experiences that were meaningful to the students and their future goals; and (d) and provided individualized instruction and coaching to promote student learning (Lagana-Riordan et al., 2011).

Student engagement. Student engagement has been defined and constructed in numerous ways, with the general research consensus being that it is a multidimensional construct (Appleton, Christenson, & Furlong, 2008; Christenson et al., 2012; Fredricks, et al., 2011; Parsons & Taylor, 2011). As student engagement refers to "the quality of a student's connection or involvement with the endeavor of schooling and hence with the people, activities, goals, values, and place that compose it," the construct is an incorporation of motivational, behavioral, social and cognitive components (Skinner, Kinderman, & Furrer, 2008, p. 2). Student engagement has been measured in numerous ways in the literature. Student engagement is often assessed via measures of academic achievement and/or specific student behaviors, such as tardiness or skipping school, involvement in extracurricular activities or school programs, or disruptive behavior (Christenson et al., 2012).

At the core of most definitions of student engagement are the four engagement domains of (a) psychological/emotional engagement; (b) behavioral engagement; (c) cognitive

engagement; and (d) academic engagement (Appleton et al., 2008; Christenson et al., 2012; Fredricks et al., 2011; Skinner et al., 2008). Psychological or emotional engagement is defined as students' sense of belonging with instructors and the school, but the definition also includes students' feelings, interests, and attitudes about their teachers, classmates, and school; and students' identification and social connectedness with academics and school (Appleton et al., 2008). Behavioral engagement is best defined as students' participation in specific and general learning tasks; behavioral engagement is also determined by other factors such as students' attendance and tardiness, attention in class, and participation in extracurricular activities (Fredricks et al., 2011). Cognitive engagement is measured in quite a diverse fashion, and can include such constructs as metacognition, students' cognitive, emotional, and behavioral methods to increase academic skills, and students' ratings of the importance of school and education (Fredricks, et al., 2011). Cognitive engagement can also pertain to the student's level of investment or effort in learning tasks (Appleton et al., 2008). Academic engagement is most often defined as students' engagement as it relates to self-regulation regarding learning tasks and students' investment in learning (Christenson et al., 2012; Skinner et al., 2008).

The definition of student engagement comprised of the four engagement domains of psychological, behavioral, cognitive, and academic engagement is considered to be the foundational and most consistently agreed-upon definition (Appleton et al., 2008; Christenson et al., 2012). However, the definition for student engagement nonetheless remains muddied due to theoretical/conceptual overlap of engagement domains and the difficulty in the operationalization of some domains (Appleton et al., 2008; Christenson et al., 2012; Finn, 1993; Yazzie-Mintz, 2007). With regard to theoretical overlap, Finn (1989) defined student engagement as contrasts, for example, engagement and disengagement. Yazzie-Mintz (2007) proposed a model of student

engagement wherein cognitive and academic engagement was defined as a single construct that assessed both student investment in learning and student strategies for learning. In contrast, Marks (2008) and Newmann, Wehlage, and Lamborn (1992) defined psychological engagement as students' level of investment, which is often considered to be a cognitive engagement construct. The theoretical aspects of social engagement are still being debating in the literature (Christenson et al., 2012).

As with the definition, the operationalization and measurement of student engagement remains imprecise. In a review of student engagement instruments, Fredricks et al. (2011) noted that 21 assessments, 14 of which were student self-report surveys, were those most currently utilized in student engagement research. Three domains of student engagement were most often measured via these self-report surveys. The first one was behavioral engagement that was assessed in 11 out of the 14 self-report surveys and included such factors as student attendance, attention and persistence in class, adherence to classroom and school rules, time doing homework, and participation in school activities. The second one was psychological or emotional engagement, seen in 10 of the 14 self-report surveys; it included items on students' positive or negative emotions regarding various aspects of school, feelings of safety and belonging, having positive relationships with teachers and peers, and having family support surrounding academic issues. The third domain was cognitive engagement, measured in eight out of the 14 self-report surveys. This domain measured the most diverse of factors, from metacognition and mnemonic practices to autodidactic learning behaviors to attitudes about the importance of school and education (Fredricks, et al., 2011).

Student engagement has been shown to be a very strong predictor of academic performance and dropping out of school when assessed multi-dimensionally or globally, via the

use of behavioral, psychological/emotional, cognitive and academic engagement constructs (Appleton et al., 2008; Archambault et al., 2009; Parsons & Taylor, 2011). Behavioral and psychological engagements as single constructs have also been shown to be strong predictors of academic performance and school completion (Appleton et al., 2008). These consistent findings may result due to behavioral engagement indicators of attendance and staying on task, which tend to be easier to measure than cognitive engagement constructs such as school investment or metacognition (Appleton et al., 2008; Parsons & Taylor, 2011). Indeed, Parsons and Taylor (2011) noted that student engagement is most commonly measured as a behavioral construct via (a) student attendance and tardiness; (b) student academic achievement based on test/assignment grades, grade point average (GPA), standardized test scores; (c) student time on learning task and completion of homework; (d) participation in extracurricular activities; and (d) frequency of behavioral problems. Psychological or emotional engagement is most frequently assessed as students' sense of belonging, and has been shown to be a strong predictor of school performance and completion, especially in studies with ethnic minority youth (Appleton et al., 2008). Proponents of measuring student engagement as a sense of belonging have argued for its primary importance in predicting school completion, as "students as expected to disengage first psychologically and then behaviorally" (Archambault et al., 2009, p. 655). Indeed, researchers (e.g., Archambault et al., 2009; Christenson et al, 2012) have noted the significant role of student engagement as a sense of belonging as being an early indicator of later school outcomes as well as a mediating factor between other student cognitive or behavioral factors and dropping out of school (Appleton et al., 2008). As noted by Appleton et al. (2008), dropping out of school is not an "instantaneous event, but a process that occurs over time" (p. 35).

Factors related to student engagement. Existing research suggests that specific factors influence student engagement. Students with developmental disabilities and behavioral and emotional disorders tend to have both low school engagement and low school persistence (Fredricks et al., 2008). Regardless of the presence of a disability or disorder, students enter the instructional setting with beliefs about their ability to be academically successful, about schooling, and about the nature of the content to be learned based on their prior experiences and existing knowledge (Skinner et al., 2008). Students with low self-esteem and poor academic self-efficacy and academic motivation are likely to have low student engagement (Appleton et al., 2008). Moreover, students who do not have a school sense of belonging and feel alienated from teachers and other students tend to disengage from school (Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003). If these student issues are not effectively addressed in elementary or middle schools, students have an increased likelihood of not succeeding at the high school level (Shernoff et al., 2003).

Certain demographic characteristics have been associated with school engagement. Females tends to be more engaged in the school and with teachers and other students this is especially seen in research conducted with students in alternative high school settings (e.g., Lagan-Riordan et al., 2011; Suhyun et al., 2007). Lagana-Riordan et al. (2011) contended that high school males more so than high school females have a negative view of both the traditional and alternative school context; and high school males more often become involved in drug use and drug-related problems than females. Both of these factors may influence males' lack of engagement and future school completion (Lagan-Riordan et al., 2011). In contrast, females tend to fare better academically in a traditional or an alternative school setting than males (Suhyun et al., 2007). High school females are more likely than males to perceive the school

context as a positive experience, often as a result of the small teacher-to-student ratio in alternate school environments and supportive interactions with teachers and staff (Suhyun et al., 2007).

Students who reside in high poverty communities and attend low-performing schools are more likely to have lower school engagement than their peers who reside in wealthier communities and high performing schools (Fredricks et al., 2011). In fact, the rate of student disengagement may be as high as 60% among high school students attending low performing school in high poverty communities (Fredricks et al., 2011). Students who are from ethnic minority groups and/or whose first language is not English also tend to have lower school engagement; however, researchers (e.g., Benner & Graham, 2009) have argued that it is not these student factors per se that influence engagement, but instead that engagement is influenced indirectly by negative teacher attitudes and the factor of attending low-performing schools.

Facilitators of student engagement. Students are greatly influenced by the numerous "facilitators of engagement" in their lives (Appleton et al., 2008). Appleton (2008) defined facilitators of engagement as "factors that influence the strength of connection" between student and school (p. 382), and can include both contextual factors such as programs and practices as well as individuals in the student's life. Parents are primary facilitators of engagement. Higher levels of parental involvement, engagement, and effective communication have been associated with better student attendance, higher math and reading scores, higher graduation rates, and less grade retention (Christenson et al., 2012; Larocque et al., 2011; Patall, Cooper, & Robsin, 2008; Strom & Boster, 2011). In addition, parental involvement has been associated with academic outcomes, such as student achievement and school persistence, and with nonacademic outcomes, such as parent and student satisfaction with schools, fewer student discipline problems, and positive student attitudes (Larocque et al., 2011).

A substantial body of research on parental involvement (e.g., Christenson, Palan, & Scullin, 2009; Larocque, Kleiman, & Darling, 2011; Patall, Cooper, & Robinson, 2008) has consistently documented, however, that parent involvement tends to decrease as the child enters high school. Indeed, Larocque et al. (2011) reported that over 90% of parents of kindergarten through fifth grade students were involved in their children's school work compared with 75% of middle school parents, 59% of parents of ninth through tenth grade students, and 53% of parents of the eleventh and twelfth grade students, thus there is a need to increase parents of high school students involvement in collaboration efforts with teachers.

School and teacher factors are also key facilitators of engagement who play key roles in students' academic completion. There are a number of reasons for this. One, student engagement is achieved when students' learning is related to real-life experiences, is relevant to the student, and is "intentionally interdisciplinary" (Appleton et al., 2008, p. 5). Two, a learning environment that is technologically-rich promotes student engagement (Christenson et al., 2012). Three, students whose teachers involve students in their own learning, challenge students to take risks in their learning, and ask for student feedback in regard to the assessment of student learning (Appleton et al., 2008; Christenson et al., 2012). Four, students whose teachers learn along with them — who focus on the process and not the outcome learning — often have high levels of student engagement (Appleton et al., 2008). Moreover, studies have revealed that the elements of good and successful schools that promote student engagement include strong leadership, focused curriculum and vision, parent involvement, and an organizational environment that supports instruction (Christenson et al., 2012; Larocque et al., 2011; Strom & Boster, 2011). Hoke and Brewington (2008) further suggested that school administrators who encouraged teachers to trust each other and to work collaboratively to monitor students' progress

and to share concerns and suggestions improved their relationships with students and were able to provide them with learning opportunities that promoted their school engagement and academic success. Empirical research provides much support for the relationships among teachers as being social capital to improve public schools (Warren, Noftle, Ganley, & Quintanar, 2011).

Dropout Prevention during the Middle to High School Transition

There are numerous evidenced-based interventions documented to reduce the likelihood of dropping out of high school. According to Hammond et al. (2007), dropout prevention programs typically fall into four types: (a) school-community collaboration programs, which include such strategies as increasing the safety of the school and the neighborhood in which it is located; (b) early intervention programs, which often focus on parenting skills, family engagement, and early literacy and can start as early as infancy; (c) student academic enhancement programs, which focus on enhancing students' learning via unique instructional methods such as individualized instruction and technology-based instruction; and (d) basic core learning programs. Mentoring, service learning, and leadership development programs are the most common types of basic core learning programs for dropout prevention (Hammond et al., 2007) and have been documented as being beneficial in promoting school engagement among 8th and 9th grade students (Gentle-Genitty, 2009).

The basic core learning program is somewhat of a misnomer: while all programs that fall under this category focus to some extent on building students' basic academic skills, they also include a focus on enhancing students' social, life, and work skills, especially those skills crucial for future employment (Davis & Snyder, 2009). Many at-risk students drop out of high school because they see no relevance in attending school; they do not see the connection between education and their future (Campolieti et al., 2009). Basic core learning dropout prevention

programs can provide students with the opportunity to learn a skill in school and, upon graduation, transfer that knowledge to the workforce (Davis & Snyder, 2009). Central to the basic core learning dropout prevention programs are students' relationships with facilitators of engagement (Davis & Snyder, 2009). It has been posited that the success of these programs in promoting school engagement is based on the caring environment created by facilitators of engagement that promote the students' school sense of belonging (Knesting, 2008; Strom & Boster, 2011). When students feel as if they belong, they become stakeholders in their educational learning. When students play active roles in helping to develop best practices, not only do they enjoy the learning, they become facilitators of their learning, and that makes a difference.

Mentoring. A substantial body of research has documented the positive benefits of mentoring as a means to increase 8th and 9th grade students' school engagement and to reduce future dropping out of school (Hammond et al., 2007; Lampley & Johnson, 2010). Mentoring is defined as a one-to-one supportive relationship between a mentor, who can be an adult or peer, and a protégé (Borden, 2012; National Dropout Prevention Center, 2013). Mentoring programs are typically categorized into two types: (a) formal mentoring programs, which include community-based programs such as Big Brothers/Big Sisters and school-based mentoring programs; and (b) informal or "natural" mentoring, which is defined as mentor-protégé relationships "existing authentically without the help of a school or outside agency" (Black, Grenard, Sussman, & Rohrbach, 2010, p. 893). While the two types of mentoring differ with regard to the type of relationship, both types have been shown to be effective when the mentoring relationship (a) is focused on the development of the protégé, whether it be in relation to future life or career goals, developing self-sufficiency and responsibility, or coping with a

traumatic event (Borden, 2012); (b) involves a sense of reciprocity, trust, honesty, and authenticity between the mentor and protégé; and (c) lasts at least 12 months (Borden, 2012). Research conducted on mentoring ethnic minority youth has also documented the importance of the mentors' sense of cultural awareness and sensitivity as positive mentoring factors (Owens & Johnson, 2009; Scheel, Madabhushi, & Backhaus, 2009).

While the majority of evaluation studies of mentoring programs have examined such formal programs as Big Brothers/Big Sisters (Hammond et al., 2007), there have been studies (e.g., Farmer et al., 2010; Lampley & Johnson, 2010; Simon, Abrams, McDonnough, & Warren, 2009) that have examined the impact of mentoring on middle school students transition to high school. In a study of a teacher mentoring program conducted with middle school students in Appalachia, Farmer et al. (2010) found that students in the mentoring program reduced their levels of aggression and increased their sense of school engagement, whereas control students increased their levels of aggression and decreased in their sense of school engagement. The mentoring program had beneficial outcomes for the teacher-mentors. Teacher-mentors noted a higher sense of efficacy in meeting students' academic, emotional, and social needs as compared to teachers who were not mentors (Farmer et al., 2010). In a study evaluating a college-student mentoring program for middle school predominantly African American students in a southeastern city, Simons et al. (2010) found that students who received mentoring from college students had higher academic scores on standardized achievement tests and a higher sense of school engagement as compared to students in the control group. Finally, Lampley and Johnson (2010) evaluated a comprehensive mentoring program for at-risk middle school students. The unique aspect about this mentoring program was that mentors included not only school teachers, but all school faculty and staff. Not surprisingly, mentoring students significantly predicted

increases in student academic achievement and reductions in student school absences (Lampley & Johnson, 2010).

Summary

Dropping out of school has far-reaching consequences for not only youth but the society at large (Alliance for Excellence in Education, 2011; Child Trends, 2013). However, numerous interventions have been shown to increase student persistence in school (Child Trends, 2012; Hammond et al., 2007). Results of studies (e.g., Benner, 2011; Bowers & Sprott, 2012) have identified that a difficulty in transitioning from middle to high school may often place students at risk for dropping out of high school. Moreover, being engaged in school may profoundly affect students' academic orientation, goals, and persistence (Goodenow, 1993; Hammond et al., 2007). The BICS program was developed via guidance from theoretical and empirical work (e.g., Benner, 2011; Borden, 2012; Christenson et al., 2009, 2012; Goodenow, 1993; Hammond et al., 2007; Suh et al., 2007) that has recognized the importance of proper transitioning and a sense of student belonging and engagement as means to help enhance student persistence in school among African American high school students from low-income households.

To address a gap in the literature, the focus of this study is an examination of Auburn University's Building Individual Capacity for Success (BICS), a strengths-based school completion program for Alabama students in 9th through 12th grade attending five public high schools in Bullock County, Lee County, Tallapoosa County, and Opelika City schools districts in Alabama. The core components of the BICS programs center on building students' sense of school belongingness and engagement via supportive mentoring relationships, leadership development, and service-learning initiatives. The BICS program started in 2008 and, with funding from the AT&T Aspire Foundation, will continue until 2014. The purpose of this study

is to examine the influence of participation in the BICS program (versus non-participation) on specific school engagement outcomes: (a) the behavioral engagement outcomes of school attendance and number of disciplinary referrals, (b) the cognitive engagement outcome of school achievement, and (c) the emotional engagement outcome of student sense of belonging.

CHAPTER III. METHODS OF STUDY AND INSTRUMENTATION

This chapter describes the methods used to conduct the study. Further, it describes the purposes, significance, research questions, design and approach, population, instrumentation, data collection and analysis.

The national high school dropout rate has consistently declined since the late 1960s, from 17% in 1967 to 7% in 2012 (Child Trends, 2013). Nonetheless, the dropout rates for ethnic minority students — especially those attending low-income urban high schools — remain higher than the national average of 7% (National Center for Education Statistics, 2012). The 2011 dropout rate for African American students was 8% and 13% for Hispanic students, and African American and Hispanic youth are four times more likely to drop out of school as compared to Caucasian and Asian youth (Child Trends, 2013). In some schools and communities, up to 50% of African American male students who enter the ninth grade will fail to complete high school (APA, 2012; Child Trends, 2013).

In addition to having a negative impact upon society, failure to graduate from high school has adverse consequences for most students. High school achievement represents a major developmental indicator toward a productive adulthood (Card, 1999). Basic educational attainment seems to play a key role in estimating both social and economic resources, as well as health behaviors and outcomes throughout adulthood (Caspi, Wright, Moffitt, & Silva, 1998; Lynch, Kaplan, & Salonen, 1997). When high school dropouts get ready to enter their adult life and seek to build a future for themselves and their families, they will face many economic and

occupational disadvantages (Caspi, Wright, Moffitt, & Silva, 1998). They tend to earn less than those who have completed high school, are less concerned with community, commit crime at a higher rate and engage less politically (Caspi, Wright, Moffitt, & Silva, 1998.)

Influences stemming from the home life of students that leave school have attracted much attention; however, researchers have begun to focus attention on factors that stem from the school environment and influences from school that relate to students leaving school early (Heck & Mahoe; 2006). This study investigated the results from a dropout prevention mentoring program that offered interventions in hopes of helping students remain in school. Building Individual Capacity for Success (BICS) is a strengths-based high school completion program coordinated through the Truman Pierce Institute in the College of Education at Auburn University in Auburn, Alabama, and it was created in hopes of helping students with lifelong success.

Program Description

BICS is program designed to provide services to assist students identified as at risk of dropping out of high school. These students were each identified from five Alabama public schools as they transition from eighth to ninth grade. Students had to meet certain criteria to be included in the BICS program: 1) having reading and math scores below grade average; 2) having significant attendance problems; and/or 3) having significant discipline referrals from teachers, administrators, and/or counselors. The BICS curriculum aimed to increase participants' awareness of skills related to action research, service learning, globalization, leadership development and mentoring. The design of the BICS program was to help students develop the appropriate leadership skills they need to be successful in high school; as well as, help them develop life skills. After assessing student individual learning needs a plan will be developed to

address these needs. This plan will be implemented in collaboration with the students' teachers, as well as, the advisors. BICS will offer leadership opportunities for the students whereas the focus will be to help them to develop leadership skills that help them as individuals, as well as, help them to collaborate with others. Community involvement via service learning is a concept that the BICS program hopes to instill in the participants. Community service activities will include school-wide events, or separately organized school programs. Examples of service activities could include cleaning up a local park, visiting the elderly, or collecting and distributing food to those that are in need.

Participants in the study in the study consisted of 100 individuals in the first year of implementation of the BICS program. Although there were 100 participants in the study, the program provided funding for 50 students during the first year; therefore, the other 50 students were matched based on the same identifying factors that predict dropping out. Both group of student were from five different five in Alabama. These schools are located in four counties. The participants were both males and females.

The students met several times during the year during and away from school. Meetings were planned and designed by the Truman Pierce Institute (TPI) leaders who enhanced the leadership development of the BIC students as well as offered BICS students opportunities for mentoring. TPI planned college visits twice a year at colleges that afforded the student opportunity to experience diversity. There were also organized planned multi-day gatherings, including an overnight stay at a hotel or retreat facility that introduced the students to life skills.

At the school level, advisors were carefully selected with one advisor being a school level administrator, while the other included a classroom teacher. Training and technical support was provided to the advisors related to action research which focused on identifying the needs of

the students, assessing those needs, and assisting with those needs that were deemed effective. The advisors had direct contact with the students at school and were expected to meet with the students periodically. The advisors met with students weekly during planned allotted times during the school day. Some schools advisors met with the student's afterschool, as well as on weekends to plan community activities; however, some were given time to meet during the day. If the advisors were asked to meet outside of school time and required assistance from other school personnel, the grant that was provided to Truman Pierce to fund the program offered a stipend to cover any cost that was relevant to activities concerning the BICS program. Advisors were responsible for communicating the success or decline of the participant's academic, social, and cognitive achievement to the staff of Truman Pierce by collecting data from the STI schools database.

Purpose of the Study

The purpose of this research was to investigate whether students' sense of belongingness improved when they participated in the BICS program. The study also examined the degree to which there were differences in the academic performance and the number of discipline referrals and absences for students who engaged in the BICS program when compared to students with similar characteristics that did not participate in BICS.

Research Questions

The following research questions guided the study:

1. To what extent were there differences in student behavior, as measured by student attendance and discipline referrals, between students enrolled in the BICS program and students not enrolled in the BICS program?

2. To what extent were there differences in student achievement, as measured by GPA, between students enrolled in the BICS program and students not enrolled in the BICS program?

3. After one year in the BICS program, to what extent did participating students' perceptions of belongingness change?

The following null hypotheses were formulated to test for statistically significant differences:

H∅1: There are no statistically significant differences in student behavior, as measured by student attendance and discipline referrals at the .05 level of significance, between the students enrolled in the BICS program when compared to a matched group of control students.

H∅2: There are no statistically significant differences of student achievement, as measured by GPA, at the .05 level of significance between the students enrolled in the BICS program when compared to a matched group of control students.

H∅3: There are no statistically significant changes at the .05 level of significance in BICS student participants' perceptions of belongingness between those scores collected just prior to the BICS program and those scores collected after one year in the BICS program.

Data Collection

The BICS intervention, a grant-funded high school completion program for students transitioning from five middle schools to five high schools in eastern Alabama, started during the 2008 spring semester. The BICS program facilitators — education faculty and graduate students trained in research and survey methodology from Auburn University's Truman Pierce Institute — assisted the researcher with the data collection activities by allowing the researcher access to

the data once it was collected from schools. Each student was given a numerical identification to protect the privacy of the names. School-based advisors and administrators at the participating schools identified and recruited eligible eighth grade students for participation in BICS. Students were identified as being at-risk for dropping out of high school either by (a) teacher and/or administrator recommendations or (b) via documentation of poor attendance, high discipline infractions, and/or poor grades. Students (n = 50) who met BICS criteria and showed interest in the BICS intervention were given information packets about the program. In addition to the packets containing information on the BICS program, the study and study purpose, and data collection procedures, the packets also contained a student assent form and a parent consent form. Of the 50 information packets distributed to students, 49 information packets were returned with signed assent and consent forms. This resulted in a response rate of 98%.

The BICS intervention was a pilot program in 2008 and thus was scaled down to include just 50 students in the intervention group. Students who were identified by administration and teachers as at risk of dropping out of school were preselected for the BICS program. Once the team decided the best candidates for the program, they were asked to receive permission from their parents to participate in the programs. Once the preselected students returned the signed assent and consent forms they were placed in the intervention groups. Using student data retrieved from the STI© Assessment student data software platform (STI©, 2004), the BICS advisors and administrators at each participating school then selected a matched sample of 50 students who were transitioning into 9th grade and attended the same five schools as the intervention group of students (10 students per school). These students were the control group for the study. This student selection stemmed from participants who qualified for participation if additional funding was available. Since these students did not participate in the BICS pilot

intervention, did not participate in any surveys, and remained anonymous to everyone but the school-based advisors and administrators, they did not have to provide assent and parental consent to participate in the data collection activities.

During this pilot year, student data relevant to the BICS intervention were collected and/or retrieved at two points in time: (a) during the spring semester of 2008, when the students were in eighth grade; and (b) during the spring semester of 2009 when the students were in ninth grade and had participated in the BICS program for an entire school year. The majority of school-based data used in this study were retrieved from student records stored in the STI© Assessment student data software platform (Gonzalez, Allen, & Blohm, 2004). Data pertinent to this study were (a) student monthly attendance, (b) number of student discipline referrals per month, and (c) semester grade point average (GPA). Data on student demographics were retrieved also from the STI© Assessment platform (STI©, 2004).

Participating BICS students completed the Psychological Sense of School Membership Survey (PSSM; Goodenow, 1993) to gauge their sense of school belongingness before and after the first year of the BICS intervention. Pre-intervention survey data were collected as part of the first session of the BICS program during the spring semester of the students' eighth grade year. The students' 2008 PSSM data were entered into an Excel spreadsheet file by the staff of TPI. Post-intervention data were collected upon completion of the BICS program, at scheduled meetings at the five schools during the spring semester of the students' ninth grade year. Post-intervention data, therefore, was collected almost exactly one year later — and in the same way — after students had participated in the BICS program for a school year.

Upon completion of the first year in the BICS program, a BICS program facilitator created a dataset of student pretest and posttest data, inclusive of 2008 and 2009 PSSM Survey

data. No identifying information such as students' names and addresses were contained in the dataset. Students were assigned instead a numerical ID, coded for time (i.e., pretest or posttest), student group (i.e., intervention versus control), and school. As such, the researcher was completely blind as to the identity of the students. The data file was maintained on a computer in the BICS program office on the campus of Auburn University. It was accessible only to the BICS program facilitators, statistician, and study researcher.

Research Design

This study, titled "Transitioning and Relationship Building among High Students and Mentors: An Examination of the BICS program", is a quasi-experimental research study. A quasi-experimental study is one in which participants are neither randomly selected nor randomly assigned to intervention or control groups (Vogt, 2007). As such, results from quasi-experimental studies do not show cause-and-effect (Vogt, 2007). Quasi-experimental research typically answers the question of associations (Vogt, 2007). This study attempted to investigate whether students' sense of belongingness improved when they participated in the BICS program. Descriptive statistics such as mean and standard deviation were used to compare the BICS group to the matched group. Data obtained also included student's discipline records, absences and grades/GPA.

The alternative hypotheses in this study were:

HA1: There are statistically significant differences in student behavior, as measured by student attendance and discipline referrals at the .05 level of significance, between the students enrolled in the BICS program when compared to a matched group of control students.

HA2: There are statistically significant differences of student achievement, as measured by GPA, at the .05 level of significance between the students enrolled in the BICS program when compared to a matched group of control students.

HA3: There are statistically significant changes at the .05 level of significance in BICS student participants' perceptions of belongingness between those scores collected just prior to the BICS program and those scores collected after one year in the BICS program.

IRB Approval

The study was an initiative of the Truman Pierce Institute, which received Auburn University IRB approval prior to conducting the intervention and collecting student data. The researcher for this study was also given approval from the IRB to use pre-existing data collected by the Truman Pierce Institute. All IRB information is maintained at the Truman Pierce Institute.

Participants

The unit of analysis for the study was the individual child. Participants consisted of 100 males and females from five different schools in four Alabama counties. Fifty of the participants were students in the BICS program and 50 of the students were matched based on same identifying predictors and were not in the program. Students were from rural schools and one small city school. The student body was predominantly of low socioeconomic status, as the schools were mostly Title 1 schools and the majority of the students received free and reduced lunch. The age of the participants ranged from 13 to 15 years. They had been identified as potential dropouts by at least one of their 8th grade teachers.

Measures

Student engagement data. Student data relevant to the BICS intervention were collected and/or retrieved at two points in time: (a) during the spring semester of 2008, when the students were in eighth grade; and (b) during the spring semester of 2009 when the students were in ninth grade and had participated in the BICS program for an entire school year. Data used in this study were (a) student attendance, (b) number of student discipline referrals and (c) semester grade point average (GPA). Data on student demographics were retrieved also from STI© Assessment student data software platform (Gonzalez, Allen, & Blohm, 2004).

Student perception data. The measure used in this study was the Psychological Sense of School Membership Survey (PSSM; Goodenow, 1993). The PSSM is an 18-item scale that measures adolescent's feelings about their sense of school belonging (Goodenow, 1993). The items speak to adolescent's perceptions about the school climate, personal acceptance within the school, and feelings of being included and respected by teachers and school personnel. A few of the items included in the survey are "I feel I am a real part of __ high school" and "Teachers are not interested in people like me." Items on the PSSM are scored using a Likert-type scale from 1 = not true at all to 5 = completely true; items 3, 6, 9, 12, and 16 are reverse coded items (Goodenow, 1993). The PSSM total scale is scored by summing the items and dividing by 18 to obtain a mean scale score (Goodenow, 1993).

The PSSM has been recognized as a recommended assessment tool for prevention programs by the CDC (2005), and it has been used as part of the National School Climate Survey (Kosciw, Diaz, & Greytak, 2007). The PSSM has shown good criterion-related validity whereas the test has demonstrated its effectiveness with measures of student's sense of community (Chiessi, Cicognani, & Sonn, 2010) and student motivation in school (Sanchez, Colon, &

Esparza, 2005; Walker & Green, 2009). The reliability of this measure has been found to be high, and ranged from .79 to .95 in a review of 27 studies by Shochet, Smith, Furlong, and Homel (2011). The PSSM has been translated into many languages, among them Spanish (Sanchez et al., 2005) and Russian (Moscardino, Scrimin, Capello, & Altoè, 2010).

Students completed the Psychological Sense of School Membership Survey (PSSM; Goodenow, 1993) to gauge their sense of school belongingness before and after the BICS intervention. Pre-intervention survey data were collected as part of the first session of the BICS program during the spring semester of the students' eighth grade year. The students' 2008 PSSM data were entered into students' records and maintained in files at the Truman Pierce Institute. Post-intervention data were collected upon completion of year one of the BICS program, at scheduled meetings at the five schools during the spring semester of the students' ninth grade year. Post-intervention data, therefore, was collected almost exactly one year later — and in the same way — after students had participated in the BICS program for a school year. The students of BICS were matched with students with same criteria (i.e., being at risk for dropping out of school due to poor grades, poor attendance, and/or high discipline infractions) that were not in the program, and followed for one year. Collected data was coded for input into a Statistical Package for the Social Sciences (SPSS version 20).

Data Collection Procedures

Data collection was part of the BICS pilot intervention program called Building Individual Capacity for Success (BICS) involving students from five schools in the state of Alabama. Since students were part of a pilot program, permission to collect information from them was obtained from the parents as part of the students' participation in the program. PSSM scale data were collected on the participants in the spring of their eighth grade year and again in

the spring of their ninth grade year. Students completed the first year measurements during scheduled meetings that involved the BICS program, and completed the final survey during a scheduled meeting at each school.

Data Analysis

In this study, descriptive and quantitative analyses were used. A quasi-experimental quantitative research design was deemed to be the best choice for this study as it is used to compare differences between groups that have not been randomly selected for the study nor randomly assigned to intervention or control groups (Vogt, 2007). The data were collected and coded for input into a Statistical Package for the Social Sciences (SPSS, 2012). Descriptive data such as mean, and standard deviation were used to compare the BICS group to the matched group and were calculated for data obtained from the student's discipline records, absences, and grades. Research questions were addressed via analysis of variance (ANOVA) statistical tests. For the first two study research questions, the type of ANOVA used was a mixed (between-groups, within-groups) analysis of variance (ANOVA) test. A mixed (between-groups, within-groups) ANOVA allows for the examination of pretest to posttest (i.e. within-groups) differences for all groups as well as the examination of intervention versus control group (i.e., between-groups) differences at posttest (Huck & McLean, 1975; Garnst, Meyers, & Guarino, 2008). A repeated-measures ANOVA was used for the third research question to determine any significant posttest changes in students' sense of school belonging due to participating in the BICS intervention (Vogt, 2007).

Limitations

As with all studies, this study had limitations. This study did not utilize an experimental design because neither the intervention nor the control group of students were randomly selected

and assigned to conditions (Rosenthal & Rosnow, 2008). The potential differences between groups, however, were minimized by selecting a group of control students who were matched to intervention students on demographic factors. Nonetheless, as this was not an experimental study, it cannot be stated that participation in the BICS program *caused* the changes in students' attendance, discipline referrals, grades, and overall GPA, and sense of belongingness (Rosenthal & Rosnow, 2008). Indeed, likely numerous other individual, family, school, and community factors also contributed to the results.

The study's internal validity (i.e., evidence of a well-structured design is rid of confounding variables) may have been compromised due to the study's implementation procedures, unique qualities of the study sample, and/or research design (Rosenthal & Rosnow, 2008). Instrumentation was not likely a significant threat to internal validity in this study (Cohen & Cohen, 1983; Muijs, 2010). Attendance and discipline referrals are often utilized as measures of behavioral engagement, and grades and overall GPA is very often used as an indicator of cognitive engagement, in education studies (Wang & Eccles, 2011). The Psychological Sense of School Membership Survey (PSSM; Goodenow, 1993), used in this study to measure students' sense of school belonging, is a psychometrically valid instrument that has been used in educational studies for 20 years (Cemalcilar, 2010).

The majority of student data were not based on self-reports, but was instead retrieved from the STI© Assessment student data software platform. Data were entered into the software platform by teachers and other school personnel; thus, participant self-presentation and maturation were not potential threats to internal validity (Cohen & Cohen, 1983; Muijs, 2010). Self-presentation and maturation, however, may have influenced students' responses on the PSSM (Goodenow, 1993). A strength to this data process was that the researcher was blind as to

the identity of the students and thus did not know their survey responses. Differential selection can have profound consequences on study outcomes; however, students in the intervention and control groups had very similar pretest scores on all variables.

History can be a threat to internal validity, especially if there is a significant length of time between pretest and posttest (Cohen & Cohen, 1983). No significant historical events occurred during the study period that likely influenced participants' responses. Attrition of participants was a threat to internal validity in this study being that both the intervention and control groups were comprised of 50 students each at pretest (N = 100), but decreased to 87 participants at posttest. However, the losses seen occurred mostly in the control group (i.e., from 50 to 37 participants, resulting in a loss of n = 11 students) because data were not accessible when advisors changed locations and students changed schools for the matched group. Also, 1 dropped out, and 1 moved that was participating in the BICS program.

External validity of a study refers to the ability to generalize study results to other populations, situations, and treatment/patient contexts (Cohen & Cohen, 1983; Muijs, 2010). The participants in this study were youth who (a) participated in a year-long pilot dropout prevention program developed by researchers at a large university, (b) attended five schools in Alabama, (c) were of low income socioeconomic status, (d) were predominantly African American, (e) had been identified by their teachers as being at risk for dropping out of school, and (f) were transitioning from eighth to ninth grade. Concerning population external validity, which concerns the degree to which the conclusions in this study would hold for other samples, places, and times, the results from this study cannot be generalized to other student populations, situations, and contexts with regard to these demographic and school characteristics (Rosenthal & Rosnow, 2008). As this study was conducted with primarily African American high poverty

students, results from this study cannot be generalized to non-African American students. Results from this study cannot be applied to students who come from wealthier households. Results from this study do not hold for other school districts that have differing high school structures and characteristics (i.e., non-public schools, schools with additional or fewer grade levels, schools located in geographical regions outside of this Alabama school district). Moreover, results from this study would not apply to studies conducted in future decades.

CHAPTER IV. RESULTS

National educational data suggest that high school graduation rates have improved at the national level, increasing from 75.5% in 2009 to 78.2% in 2012 (National Center for Education Statistics, 2012). While Alabama high school graduation data followed this national upward trend, this state's overall percentage of high school graduates is much lower than the national rate. The high school graduation rate in Alabama was 66.2% in 2009, but did increase to 80% in 2013, the highest ever to be reported in Alabama (Alabama State Department of Education (ALSDE), 2013).

Dropping out of high school can result in numerous and potentially far-reaching societal and economic problems (Hammond et al., 2007; Lee & Burkam, 2003; Neil et al., 2008). A student who drops out of high school can look forward to a future wherein he or she is likely to be unemployed or under-employed, unhealthy, making below of livable wage, and even possibly incarcerated (Balfanz et al., 2013; Bowers & Ryan-Sprott, 2013; Knesting, 2008; Neil et al., 2008). The societal and economic costs from high dropout rates include increased crime and poverty rates in communities and billions of dollars in lost wages (Balfanz et al., 2013).

Just as dropping out of school is related to specific individual and societal factors, specific individual and societal factors are related to dropout rates. One factor is the middle-to-high school transition period, a crucial academic turning point for many students (Kennelly & Monrad, 2007). The student dropout rate between middle and high school is higher than all the other years of school combined (Cohen & Smerdon, 2010; Kennelly & Monrad, 2007).

Students' sense of belonging to his or her school is also related to dropout rates (Morrisette, 2011). Core aspects of belongingness include feelings of acceptance and respect as well as trust (Goodenow, 1993). Another factor is student engagement. In this study, the focus was on behavioral engagement, which can be defined by such behaviors as attending school, coming to school on time, paying attention in class, and behaving appropriately in class and in school (Fredricks et al., 2011.)

The purpose of this chapter is to provide the statistical results of the study as they pertain to the research questions. This chapter opens with an overview of the data collection procedures. This overview is followed by a presentation of descriptive data on the study participants. The statistical results of the study's research questions are the topics of the third section of this chapter. A summary section concludes this chapter.

Data Collection

The BICS intervention, a grant-funded high school completion program for students transitioning from five middle schools to five high schools in eastern Alabama, started during the 2008 spring semester. The BICS program facilitators' first activities were the identification and recruitment of eligible eighth grade students. Students were identified as being at-risk for dropping out of high school either by (a) teacher and/or administrator recommendations, or (b) via documentation of poor attendance, high discipline infractions, and/or poor grades. Students who met BICS criteria and showed interest in the BICS intervention were given information packets about the program. In addition to information on the BICS program, the study and study purpose, and data collection procedures, the packets contained a student assent form and a parent consent form, all of which were part of the BICS pilot program.

The BICS intervention was a pilot program in 2008 and thus was scaled down to include just 50 students in the intervention group. Students who were identified by administration and teachers as at risk of dropping out of school were preselected for the BICS program. Once the team decided the best candidates for the program, they were asked to receive permission from their parents to participate in the programs. Once the preselected students returned the signed assent and consent forms they were placed in the intervention groups. Using student data retrieved from the STI© Assessment student data software platform (STI©, 2004), the BICS program facilitators then selected a matched sample of 50 students who were transitioning into 9th grade and attended the same five schools as the intervention group of students. These students were the control group of students for the study. This student selection derived by what would have been qualified participants if additional funding were available. Student data relevant to the BICS intervention were collected and/or retrieved at two points in time: (a) during the spring semester of 2008, when the students were in eighth grade; and (b) during the spring semester of 2009 when the students were in ninth grade and had participated in the BICS program for an entire school year. The majority of school-based data used in this study were retrieved from student records stored in the STI© Assessment student data software platform (STI©, 2004).

Study Descriptive Statistics

The final study sample size was 87 participants. Of the 87 participants, 34 (39.1%) were female and 53 (60.9%) were male. The majority (79, 90%) of participants were African American. The mean age of study participants was 13.48 years (*SD* = .50) and ages ranged from 13 to 14 years of age. The participants attended schools where at least 55% of the study body was eligible for free/reduced lunch.

Of the 87 participants, 48 (55.2%) were in the BICS program and 39 (44.8%) were in the control group. Two chi-square (χ^2) tests of independence were conducted to determine if the BICS program group and the control group of students differed with regard to gender or age. There was not a significant difference between the BICS program group and the control group with regard to gender groups, $\chi^2(1) = .981$, $p = .322$, or age groups, $\chi^2(1) = .006$, $p = .941$. Table 2 provides the frequency and percentage of males and females and students 13 years of age and 14 years of age by intervention and control groups.

Table 2

Descriptive Statistics for the Study Sample by Intervention or Control Group: Gender and Age (N = 87)

	Frequency	%
BICS Intervention Group		
Male	27	50.9%
Female	21	61.8%
Control Group		
Male	26	49.1%
Female	13	38.2%
Intervention Group		
13	25	55.6%
14	23	54.8%
Control Group		
13	20	44.4%
14	19	45.2%

Preliminary Analyses

Preliminary analyses were run on study variables prior to conducting statistical tests for the research questions. For each pretest and posttest study variable, variable mean, standard deviation, and minimum and maximum scores were calculated (see Table 3). The inter-item reliability was computed for the Psychological Sense of School Membership Survey (PSSM; Goodenow, 1993), which measured students' sense of school belonging. A Cronbach's alpha (α) above .70 is considered good, $\alpha > .80$ is considered very good, and $\alpha > .90$ is considered excellent (Berry, 1993). The PSSM pretest α was .73 and the PSSM posttest α was .74, both of which indicated that the inter-item reliabilities of the PSSM at pretest and posttest were good. Normality of variable scores was examined by calculating the skewness and kurtosis values for PSSM variables. Skewness values higher than +/- 2.00 indicate considerable skewness, and kurtosis values with values greater than 3.00 indicate substantial kurtosis (Berry, 1993). There were no skewness values higher than +/- 2.00 nor were there any kurtosis values higher than +/- 3.00 for any of the study variables. All study variables, therefore, showed a normal distribution of scores. The sphericity assumption was not relevant to this data, as there were only two within-group levels (i.e., pretest and posttest) (Garnst et al., 2008).

Table 3

Descriptive Statistics: Student Attendance, Discipline Referrals, GPA, and Sense of School Belonging Pretest and Posttest Scores (N = 87)

	N	*M*	*SD*	*Min*	*Max*	*Sk*	*K*	*α*
Pretest: Attendance[a]	87	9.66	4.57	1.00	25.00	1.03	1.78	N/A
Posttest: Attendance[a]	87	8.95	4.54	1.00	25.00	1.26	2.64	N/A
Pretest: Referrals[b]	87	11.70	4.62	2.00	22.00	.38	-.21	N/A
Posttest: Referrals[b]	87	6.56	5.89	0.00	22.00	.84	-.20	N/A
Pretest: GPA[c]	87	1.81	.51	.75	3.00	-.10	-.21	N/A
Posttest: GPA[c]	87	2.32	.66	.75	3.75	-.34	-.32	N/A
Pretest: Sense of Belonging	87	3.06	.55	2.13	4.78	.89	.87	.73
Posttest: Sense of Belonging	87	3.77	.53	2.56	4.78	-.19	-.79	.74

Note. Sk = skewness, K = kurtosis. [a]Attendance score was determined by the number of days that the student missed per school year; [b] Referral score was determined by the number of discipline referrals the student received per school year; [c] GPA was based on a scale 4.00 grading scale

Pearson bivariate correlations were conducted to determine if any significant associations existed among the study variables of attendance, discipline referrals, and GPA at pretest and posttest to assess whether any pretest variables were significantly correlated with posttest variables and thus needed to be controlled for in analyses (see Table 4). There were few significant associations amongst these variables, and there were no significant associations between pretest and posttest variables. The only significant association at pretest was between pretest attendance and pretest GPA, $r(87) = -.32$, $p = .003$: the more days of school a student

missed, the lower his or her GPA. All posttest variables were significantly correlated with one another. Posttest attendance was significantly associated with posttest disciple referrals, $r(87) = .41$, $p < .001$, and posttest GPA, $r(87) = -.42$, $p < .001$. The more school days a student missed, the higher the number of discipline referrals he or she received and the lower his or her GPA was in the past school year.

Table 4

Pearson Bivariate Correlations: Attendance, Discipline Referrals, and GPA at Pretest and Posttest (N = 87)

	Pretest Attendance[a]	Pretest Referrals	Pretest GPA	Posttest Attendance[a]	Posttest Referrals	Posttest GPA
Pretest Attendance	1.00					
Pretest Referrals	.16	1.00				
Pretest GPA	-.32**	-.15	1.00			
Posttest Attendance	.09	-.07	-.15	1.00		
Posttest Referrals	-.02	.10	-.04	.41***	1.00	
Posttest GPA	-.04	.08	.08	-.42***	-.56***	1.00

Note. [a]Calculated as number of days missed in past school year. **$p < .01$, ***$p < .001$

Data Analyses for Hypothesis Testing

Research questions were addressed via analysis of variance (ANOVA) statistical tests. For the first two research questions, the type of ANOVA used was a mixed (between-groups, within-groups) analysis of variance (ANOVA) test. A mixed (between-groups, within-groups)

ANOVA allows for the examination of pretest to posttest (i.e. within-groups) differences for all groups as well as the examination of intervention versus control group (i.e., between-groups) differences at posttest with regard to student attendance, referrals, and GPA (Garnst, Meyers, & Guarino, 2008; Huck & McLean, 1975). A repeated-measures ANOVA was used for the third research question to determine any significant posttest changes in students' sense of school belonging due to participating in the BICS intervention. Both repeated-measures and mixed ANOVA tests are the recommended statistical analyses to test for intervention effects when pretest-posttest measurement is involved (Zhang & Watanabe-Galloway, 2013).

Research question 1: Behavioral engagement differences across intervention and control groups. The first research question was, "To what extent are there differences in student behavior (i.e., attendance, discipline referrals) between students enrolled in the BICS program and students not enrolled in the BICS program?" The results of the mixed ANOVA for the first research question on attendance are presented in Table 5. The Levene's tests of equality of error variances were significant for both the pretest attendance variable, $F(1, 85) = 3.94$, $p = .05$, and for the posttest attendance variable, $F(1, 85) = 9.37$, $p = .03$. Attendance data violated this assumption; therefore, results are unreliable when Levene's tests are significant because the (p value) is less than or equal to the statistical level for this test.

Table 5

Mixed (Between-Groups/Within-Groups) ANOVA: Pretest-Posttest Differences on Attendance by Group (N = 87)

Source	Type III Sum of Squares	df	M Square	F	p
Between-Groups					
Group	87.15	1,85	87.15	3.98	.049***
Within-Groups					
Attendance	10.69	1,85	10.69	.63	.431
Attendance by Group	165.31	1,85	165.31	9.68	.003***

Note. ***p < .05

Between-groups effects were examined first. There was a significant posttest difference between the intervention and control groups on attendance, as measured by the number of missed school days, $F(1,85) = 3.98$, $p = .049$. The mean number of missed school days for the intervention group was 7.44 days ($SD = 3.00$) while the mean number of missed school days for the control group was 10.82 days (SD = 5.39), per school year, at posttest. Based on the partial η^2 value of .045, participation in the BICS intervention explained 4.5% of the variance, a moderate effect, in posttest attendance scores.

With regard to within-groups effects, there was not a significant pretest to posttest within-groups decrease in the number of missed school days for the two groups, Wilks $\lambda = .993$, $F(1,85) = .63$, $p = .431$, partial $\eta^2 = .007$. There was, however, a significant decrease in the number of

missed school days for the intervention group, Wilks $\lambda = .898$, $F(1,85) = 9.68$, $p = .003$, partial $\eta^2 = .102$. The number of missed school days for the intervention group significantly decreased from an average of 9.90 days ($SD = 5.32$) at pretest to 7.44 days ($SD = 3.00$) at posttest. In contrast, the number of missed school days for the control group slightly increased at posttest — to 10.82 days ($SD = 5.39$) — from the pretest average of 9.36 days ($SD = 3.48$).

For the discipline referral component of the first research question, the results of the mixed ANOVA are presented in Table 6. The Levene's test of equality of error variances was not significant for the pretest discipline referral variable, $F(1, 85) = .02$, $p = .885$, but it was significant for the posttest attendance variable, $F(1, 85) = 18.00$, $p < .001$. The non-significant Levene's test demonstrated that the assumption of homogeneity of variances was not violated

Table 6

Mixed (Between-Groups/Within-Groups) ANOVA: Pretest-Posttest Differences on Discipline Referrals by Groups (N = 87)

Source	Type III Sum of Squares	df	M Square	F	p
Between-Groups					
Group	1101.18	1,85	1101.18	61.29	<.000**
Within-Groups					
Discipline Referrals	942.68	1,85	942.68	59.67	<.000**
Discipline Referrals by Group	842.22	1,85	842.22	53.31	<.000**

Note. **p < .001

With regard to between-groups effects on posttest discipline referrals, there was a significant difference between the intervention and control groups on posttest discipline referrals, $F(1,85) = 61.29$, $p < .001$. The mean number of discipline referrals for the intervention group was 2.31 ($SD = 2.02$) while the mean number of discipline referrals for the control group was 11.79 ($SD = 4.74$), for the school year, at posttest. Based on the partial η^2 value of .419, participation in the BICS intervention explained a quite robust 41.9% of the variance, a large effect, in posttest attendance rates.

With regard to within-groups effects, there was a significant decrease in the number of discipline referrals for both groups, Wilks $\lambda = .588$, $F(1,85) = 59.67$, $p < .001$, partial $\eta^2 = .412$, with the results being more substantial for the intervention group, Wilks $\lambda = .615$, $F(1,85) = 53.31$, $p < .001$, partial $\eta^2 = .385$. These results showed that while both groups of students reported significantly fewer discipline referrals at posttest, students in the intervention group realized greater decreases. The number of discipline referrals for the control group decreased from 12.05 ($SD = 4.63$) at pretest to 11.79 ($SD = 4.74$) at posttest. The number of discipline referrals for the intervention group decreased from an average of 11.42 referrals ($SD = 4.63$) at pretest to an average of 2.31 referrals ($SD = 2.02$) at posttest.

Research question 2: Cognitive engagement (i.e., GPA) differences across intervention and control groups. The second research question was, "To what extent are there differences in student achievement (GPA) between students enrolled in the BICS program and students not enrolled in the BICS program?" The results of the mixed ANOVA for GPA are presented in Table 7. The Levene's test of equality of error variances was not significant for the pretest GPA variable, $F(1, 85) = .12$, $p = .731$, nor was it was significant for the posttest GPA

variable, $F(1, 85) = .66$, $p = .421$. The non-significant Levene's tests demonstrated that the assumption of homogeneity of variances was not violated.

Table 7

Mixed (Between-Groups/Within-Groups) ANOVA: Pretest-Posttest Differences on GPA by Group Contrasts (N = 87)

Source	Type III Sum of Squares	Df	M Square	F	p
Between-Groups					
Program Group	8.40	1,85	8.40	29.37	<.001**
Within-Groups					
GPA	9.19	1,85	9.19	40.49	<.001**
GPA by Program Group	8.69	1,85	8.69	38.27	<.001**

Note. **p < .001

With regard to between-groups effects, there was a significant mean GPA difference between the intervention and control groups at posttest, $F(1,85) = 29.37$, $p < .001$. The mean posttest GPA for the intervention group was 2.72 (equivalent to a B+), whereas the mean posttest GPA for the control group was 1.83 (equivalent to a C). Based on the partial η^2 value of .257, participation in the BICS intervention explained 25.7% of the variance, a large effect, in posttest GPA.

With regard to within-groups effects, there was a significant increase in GPA for both groups, Wilks $\lambda = .677$, $F(1,85) = 40.49$, $p < .001$, partial $\eta^2 = .323$, with the results being more substantial for the intervention group, Wilks $\lambda = .69$, $F(1,85) = 38.27$, $p < .001$, partial $\eta^2 = .310$.

These results showed that while both groups of students reported a higher mean GPA at posttest, students in the intervention group realized greater GPA increases. The mean GPA for the intervention group increased from 1.81 (*SD* = .50) at pretest to 2.72 (*SD* = .46) at posttest. The mean GPA for the control group slightly increased from 1.81 (*SD* = .53) at pretest to 1.83 (*SD* = .53) at posttest.

Research question 3: Psychological/emotional engagement differences from pretest and posttest for the intervention group. The third and final research question was, "After one year in the BICS program, to what extent did participating students' perceptions of school belonging change?" For this question, a repeated-measures ANOVA was conducted to determine any pre- to post-intervention changes in perceptions of school belonging amongst BICS participants. The results of the repeated-measures ANOVA are presented in Table 8. The Levene's test of equality of error variances was not applicable to this type of ANOVA.

Table 8

Repeated-Measures ANOVA: Pretest to Posttest Changes on Sense of School Belonging in BICS Intervention Group (N = 47)

Source	Type III Sum of Squares	Df	M Square	F	P
Sense of School Belonging	11.76	1,46	11.76	82.13	<.001**

Note. **p < .001

With regard to within-groups effects, there was a significant pretest to posttest increase in sense of school belonging for the BICS participants, Wilks $\lambda = .36$, $F(1,46) = 82.13$, $p < .001$,

partial $\eta^2 = .641$. Sense of school belonging for BICS participants increased from 3.06 (*SD* = .55) at pretest to 3.77 (*SD* = .53) at posttest.

Summary

Among the core reasons that students disengage from school and subsequently leave school is their inability to connect and engage with the school environment (Hammond et al., 2007; Knesting, 2008). Negative and stressful experiences during the middle to high school transition period can worsen students' ability to make school connections in high school (Strom & Boster, 2011). Researchers now agree that dropping out of school is the culmination of a process of progressive disengagement with academics as well as the social aspects of school (Balfanz et al., 2013; Goodenow, 1993; Hammond et al., 2007; Knesting, 2008; Lagana-Riordan et al., 2011). While it is important that dropout prevention programs be developed to assist students to stay in school, it is crucial that such programs be evaluated as to their effectiveness on more outcomes than just students' intentions to drop out of school (Lemon & Watson, 2011).

The purpose of this study was to examine the influence of participating in BICS, a strengths-based high school dropout prevention program, on 9th grade student outcomes related to student engagement factors of attendance and discipline referrals (behavioral engagement), GPA (cognitive engagement), and sense of school belonging (psychological/emotional engagement). Intuitively, connecting students to a programmatic environment that affords the student opportunities, skills, and resources for school success during a particularly perilous time will in fact increase positive student academic outcomes. This sense of intuition proved to be correct, at least with regard to student attendance, discipline referrals, GPA, and student sense of school belonging.

The first research question pertained to intervention effects on student behavior, specifically attendance and discipline referrals. Results from a mixed ANOVA showed that students who participated in the BICS intervention had fewer absences from school as compared to the control group of students. Indeed, the control group of students reported *decreased* attendance at posttest. The impact of the BICS intervention was more evident with regard to changes in the number of student discipline referrals from pretest to posttest. While both groups of students reported significantly fewer discipline referrals at posttest, students in the intervention group realized greater decreases, from an average of 11.42 referrals at pretest to an average of 2.31 referrals at posttest. Based on the significant results from mixed ANOVA testing, the null hypothesis for the first research question was rejected and the alternative hypothesis accepted.

The potential impact of the BICS intervention on GPA was addressed in the second research question. The findings for the intervention group were quite robust. The mean GPA increased one letter grade for BICS participants, going from 1.83, which was equivalent to a mean GPA of a D-, to 2.72, which was equivalent to a mean GPA of a C+. This finding suggested that the BICS intervention had a positive and profound effect on student GPA. Based on the significant results from mixed ANOVA testing, the null hypothesis for the second research question was rejected and the alternative hypothesis was accepted.

The third research question suggested that student participation in the BICS program would result in higher levels of school belongingness. Based on the significant results from this repeated-measures ANOVA testing, the null hypothesis was rejected and the alternative hypothesis, accepted. Students' sense of school belonging significantly increased as a result of

participation in the BICS program. A full summary of this study, conclusions and recommendations are presented in Chapter 5.

CHAPTER V. DISCUSSION

Dropping out of school has far-reaching consequences for youth, and these consequences can extend to society, creating significant social and economic problems (Alliance for Excellence in Education, 2011). High school dropouts are more likely to be underemployed or unemployed; as a result, they have lower earnings as adults in comparison to their peers who graduated from high school (Balfanz et al. 2013; Child Trends, 2013). The inability of individuals without a high school degree to command a living wage is furthermore associated with higher incidence of criminal behavior, poor health, lack of family stability, higher rates of public assistance for food and housing and medical care, and less participation in community life (APA, 2012; Child Trends, 2013). The students who dropped out of school in 2010 could, over their lifetime, cost the nation close to $350 billion in lost wages (Child Trends, 2013). However, numerous interventions have been shown to increase student persistence in school (Child Trends, 2013; Hammond et al., 2007). By focusing and addressing specific issues known to correlate with dropping out of school — difficulty in transitioning from middle to high school and lack of school engagement and sense of belonging — the education community can better meet the needs of students at risk for dropping out of high school (Smith et al., 2013; Uvaas & McKevitt, 2013).

The focus of this study was to determine associations between participating in Building Individual Capacity for Success (BICS), a strengths-based school completion program developed at the Truman Pierce Institute for Alabama middle and high school students, on student

engagement outcomes. The core components of the BICS program center on building students' sense of school belongingness and engagement via supportive mentoring relationships, leadership development, and service-learning initiatives. The primary purpose of this study was to determine the effectiveness of the BICS program in enhancing students' school-based behaviors and attitudes. As such, one aim of this study was to examine the degree to which differences emerged with regard to attendance, number of discipline referrals, grades and GPA across the intervention and control groups. Another aim of this study was to assess whether students, by participating in the BICS program, showed an associated increase in their sense of school belongingness from pretest to posttest.

The purpose of this chapter is to provide a brief review and discussion of the study research findings. In this chapter, information derived from this study is presented in four sections. The first section is a summary review of the study participants and data collection procedures. The second section is devoted to a discussion of the study findings, in consideration of relevant research studies. Study limitations and delimitations are the topics for the third section. The fourth and final section presents recommendations for further research and practice.

Review of Study Participants and Data Collection Procedure

The unit of analysis for this study was the individual child. In this study, the sample size was 87 students, 48 of whom were in the BICS program and 39 of whom were in the matched control group. The 87 participants attended five different schools in four counties of Alabama; students came from both rural and small city schools. As all five schools were Title I schools, the participants were predominantly of low socioeconomic status. Participants ranged in age from 13 to 14 years and were predominantly African American. Students who participated in the study had been identified as potential dropouts by at least one of their eighth grade teachers or

administrators. Permission to collect information from students who participated in the study was obtained from the parents, who provided informed consent.

The data for this study were collected as part of the BICS pilot program. Participants in the intervention groups completed pre-test surveys in the spring of their eighth grade year and completed post-test surveys in the spring of their ninth grade year. While data was collected from both groups of students on their attendance and number of discipline referrals they received in the past school year as well as grades, and their overall GPA, only students in the BICS program completed, a pre- and post-test, the Psychological Sense of School Membership Survey (PSSM; Goodenow, 1993) as a measure of their sense of school belongingness.

Study Implications

The first two research questions focused on the examination of whether BICS participants reported higher rates of school attendance (behavioral engagement) and lower rates of discipline referrals (behavioral engagement) as well as improved GPA (cognitive engagement) in comparison to a control group of students across one school year. The third and last research question examined whether participation in the BICS program enhanced students' sense of school belongingness (psychological/emotional engagement), as measured by the PSSM (Goodenow, 1993).

Study Implications: Student Behavioral Engagement

The purpose of the first research question was to determine if participation in the BICS program led to changes in two student school-based behaviors, that is, attendance and discipline referrals. Attendance and discipline referrals are indicators of behavioral engagement (Appleton et al., 2008; Fredricks et al., 2011; Parsons & Taylor, 2011). Students in the BICS program and students in the control group had a similar number of missed school days – nine – at pretest

(eighth grade spring semester). However, based on the statistical results, students in the BICS program increased their school attendance both over time, from eighth grade spring semester to ninth grade spring semester, and in comparison to the control group at posttest (ninth grade spring semester). BICS participants missed, on average, nine days in their eighth grade spring semester and seven days in their ninth grade spring semester, a statistically significant difference. In contrast, students in the control group reported missing, on average, nine days during their eighth grade spring semester and ten days during their ninth grade spring semester. The average of ten days missed during the ninth grade spring semester by the control group was a significantly higher number than the seven missed days during the ninth grade spring semester as reported by BICS participants.

With regard to discipline referrals, BICS participants and students in the control group reported a similar mean number of discipline referrals at pretest (i.e., 12 for the control group and 11 for the intervention group during eighth grade spring semester). Students in the BICS program reported significantly fewer discipline referrals both over time (from eighth grade spring semester to ninth grade spring semester) and in comparison to the control group at posttest (ninth grade spring semester). BICS participants reported, on average, 11 discipline referrals in their eighth grade spring semester and 2 discipline referrals in their ninth grade spring semester, a statistically significant difference. In contrast, students in the control group reported an average of 11 discipline referrals in the ninth grade spring semester, as compared to 12 reported in their eighth grade spring semester.

These results are quite profound when considering that these attendance and discipline referral changes occurred during the students' ninth grade year, a time where student engagement significantly declines (Cohen & Smerdon, 2009; Fredricks et al., 2011). Poor attendance and a

significant number of discipline referrals, especially in 8th and 9th grade, are regarded as "an early warning" sign of dropping out of high school (Henry, Knight, & Thornberry, 2012, p. 157). Results with regard to the control group of students from this study support prior studies (e.g., Fleming et al., 2010; Henry et al., 2012; Wang & Eccles, 2011) that have shown that poor attendance and increased number of discipline referrals are two of the most common signs of the downward academic trajectory that at-risk students face in ninth grade. Moreover, these results supported theoretical engagement positions that have argued that the dropout prevention programs that are most effective in changing behavioral school engagement factors are those that are strengths-based programs that involve relationships between "facilitators of engagement" and students and are implemented during sensitive school transition periods (e.g., Appleton et al., 2008; Christenson et al., 2012; Knesting, 2008).

School attendance and discipline referrals have also been shown to have other long-term effects (Bowers & Sprott, 2012; Henry et al., 2012; Wang & Eccles, 2011). For example, Wang and Eccles (2011) examined school engagement predictors of school and academic outcomes longitudinally, following students from seventh to eleventh grade. Results from their study showed that poor attendance was the most significant predictor of decreases in students' GPA from seventh to eleventh grade, more significant than students' sense of school belongingness and their ability to be self-regulated learners. In Wang and Eccles' (2011) study, the behavioral engagement factor of attendance was more influential than psychological/emotional and cognitive engagement factors in predicting decreased GPA. Moreover, poor attendance influenced students' educational aspirations over time (Wang & Eccles, 2011). Other studies (e.g., Fleming et al. 2010; Henry et al., 2012; Tucker et al., 2011) have documented that poor attendance and a high number of discipline referrals in eighth and ninth grade predicted not only

an increased likelihood for dropping out of school but also delinquent behavior and substance use in late adolescence and early adulthood. These studies suggest that the BICS program, by effectively reducing the number of missed school days among program participants, may offer long-term academic, social, and emotional benefits.

Study Implications: Student Cognitive Engagement

As cognitive engagement can be defined as students' level of investment or effort in learning tasks, GPA was considered an indicator of cognitive student engagement in this study (Appleton et al., 2008; Christenson et al., 2012). The potential impact of the BICS intervention on student grades and overall GPA was addressed in the second research question. The findings for the intervention group were quite robust. The mean GPA increased one letter grade for BICS participants, from a mean GPA of D at pretest (eighth grade spring semester) to a mean GPA of C+ at posttest (ninth grade spring semester). This finding suggested that the BICS intervention had a positive and profound effect on student GPA. Students in the BICS program reported very strong GPA increase during one of the riskiest school grades, ninth grade (APA, 2012; Benner, 2011; Tucker et al., 2011).

Student engagement – whether it is psychological/emotional, behavioral, or cognitive – has been shown to decline as the student progresses through grades, with decreases most evident during the ninth grade transition (Fredricks et al., 2011). Parallel to this decline is a decline in student academic achievement, a cognitive engagement indicator (Benner & Graham, 2009; Black et al., 2010; Cohen & Smerdon, 2009). The transitional period from middle school to high school has been documented as one of the riskiest times of students' learning careers (APA, 2012; Benner & Graham, 2009; Kennelly & Monrad, 2007). However, the BICS program seemed to provide a buffer against the difficulties that students confronted in the ninth grade.

The impact of BICS on students' ninth grade GPA may also be beneficial in preparing students for the demands of high school academics as well as promoting their college readiness (Benner, 2011). These students were more likely to be successful academically in later grades having entered high school with a GPA of C+. Moreover, a C+ GPA could provide to these students more post-high school graduation academic opportunities (Davis & Snyder, 2009; Smith et al., 2013).

Results from this study, however, differed from a study conducted by Somers et al. (2010) that examined the efficacy of dropout prevention programs similar to BICS. Somers et al. (2010) described the evaluation results of a school dropout program that, like BICS, was created out of a university-school partnership, and that provided personal development, enrichment, and leadership opportunities to students transitioning into ninth grade over one school year. Interestingly, the pretest GPA of participants in Somers et al. (2010) study was 1.80, very similar to the GPA of 1.81 in this study. Student GPAs in Somers et al. (2010) increased to an average of 2.00 at posttest, but this increase was not significant. The dropout prevention program evaluated by Somers et al. (2010) differed from BICS in that students attended four tutoring sessions per week and were provided enrichment opportunities only once a month. The BICS program may have contributed to students' increased GPA by providing programming that was more academically holistic (i.e., having mentorship, leadership, and service learning opportunities) and that did not emphasize deficits through heavy focus on remediation.

Study Implications: Student Psychological/Emotional Engagement

The purpose of the third and final research question was to determine if students who participated in the BICS program increased in their sense of school belongingness from pretest (eighth grade spring semester) to posttest (ninth grade spring semester). Results showed that

students did in fact report an increase in school sense of belongingness after a year of participating in the BICS program. It has been consistently documented in research that students' sense of school belongingness is a significant predictor of student academic motivation and persistence (Atkins et al., 2008; Baumeister & Leary, 1995; Cauley & Jovanovich, 2006; Duckenfield & Reynolds, 2013; Morrisette, 2011). Goodenow (1993) argued that a student sense of belonging was comprised of four factors. The four factors she identified are; student acceptance, respect, inclusion, and support. The BICS program may have provided for all four of these factors. The "informational, tangible, emotional, and social" supports deemed necessary for successful academic transitions and growth (Cauley & Jovanovich, 2006, p. 16) were likely provided by BICS program leaders, and those supports may have led to increases in students' sense of school belongingness.

Recommendations for Research and Practice

The results in this study were showed that participation in the BICS program was associated with increased sense of student belonging, higher GPA, decreased absences, and lower rates of referrals. There is good evidence that the BICS program works. The study showed that the students' grades, and attendance, increased, while their discipline infractions decreased. They also felt more connected to their environment based on their sense of belonging, however, even though the report of this study was positive, there are still more recommendations for research and practice that could be of better benefit for students that emerge from this study.

Recommendations for Research

With regard to research recommendations, additional statistical analyses could be conducted in future studies with this and additional years of BICS data. The construct of student

sense of belongingness could be examined as a mediator (i.e., a variable that explains the linkages or relationships between the independent and dependent variable) or moderator (i.e., a variable that interacts with the independent variable to influence the dependent variable) between participation in the BICS program and behavioral and cognitive indicators of student engagement (Rosenthal & Rosnow, 2008). Like the current study, studies (e.g., Duckenfield & Reynolds, 2013; Montgomery & Hirth, 2011; Smith et al., 2013; Uvaas & McKevitt, 2013) have documented that students in transitional educational programs have reported higher levels of school engagement and that they tend to have higher levels of achievement. It seems that sense of belongingness may be a factor linking the program to the engagement outcomes. It may be that participation in the BICS program increased students' sense of belonging, which in turn, led to decreases in absences and referrals and increases in school achievement. Indeed, this has been supported in research on dropout prevention initiatives "A positive school climate improves … student sense of belonging [and] … achievement" (Duckenfield & Reynolds, 2013, p. 43).

In addition to the role that sense of belonging plays as a mediator or moderator (how having a sense of belongingness impacts, or have direct links to), longitudinal examinations of student sense of belonging (and its potential impact on school outcomes) would be beneficial. In a longitudinal study by Benner and Graham (2009), conducted with over 1,900 ethnically diverse urban middle school students transitioning to high school, results showed that the students' feelings of school belonging not only increased at middle school but also stayed at that level during the ninth grade transition.

As school attendance and discipline referrals have been shown to influence not only dropping out of school but an increased likelihood of delinquent behavior and substance abuse in early adulthood, it would be interesting to examine whether participation in dropout prevention

programs in middle and high school afforded long-term benefits into adulthood (Bowers & Sprott, 2012; Henry et al., 2012; Smith et al., 2013).

In this study, the sample was too small and homogenous to test as to whether gender, ethnicity, socioeconomic, and disability played a role in both participation in the BICS program and resultant outcomes. Previous studies (e.g., Lagana-Riordan et al., 2011; Suhyun et al., 2007; Vaughn, et al., 2011) have shown that gender, ethnicity, and disability play a role in dropping out of school. Studies that consider the interactions of gender, ethnicity, and socioeconomic with programmatic effects would be beneficial. Another area of research could focus on understanding the impact of dropout prevention programs on students of color with mental illness. In a recent longitudinal study by Quiroga, Janosz, Bisset, and Morin (2013), conducted with 493 students in Quebec, Canada, the results showed that seventh grade students diagnosed with depression were more likely to drop out of school later in their adolescence than were students not diagnosed with depression. Moreover, in a study by Vaughn et al. (2011), the results showed that students with a psychiatric disability reported high levels of school disengagement. However, neither of these studies was conducted with a predominantly African American group of students.

Most dropout prevention programs have been evaluated with regard to school-based outcomes (Bowers et al., 2013; Uvaas & McKevitt, 2013). The body of research on dropout prevention could be enhanced by studies examining the effects of such programs on the students' behavior at home and/or socially, with peers. Few studies have examined the benefits — or the negative consequences — of such programs for mentors, advisors, and school personnel involved in the program. To do so would provide a unique perspective on dropout prevention programs. Results from this study suggested that programs that involve components of mentoring,

leadership, and service learning would be beneficial for students transitioning to ninth grade, however, this study did not examine whether certain components of the BICS program were more influential than other components in affecting school behaviors and achievement. In a study by Somers et al. (2010), wherein a dropout prevention program for ninth grade students was evaluated, the results showed that the tutoring component of the program was significantly related to increased student GPA but was not related to favorable student attitudes toward staying in school. In addition, in an evaluation study conducted by Hendon and Jenkins (2013) on two high school dropout prevention programs in Alabama, the teacher advisement program did not relate to student outcomes. Future studies that examine the individual benefits of dropout program components as well as the holistic impact of dropout prevention programs on student outcomes would be beneficial.

Recommendations for Practice

As with research, there are numerous applications of this study to practice. There is good evidence that the BICS program works. One reason may be that the program was geared toward those students who were not only at risk for dropping out of school but who were also "likely to have the greatest difficulty with … transitions" (Cauley & Jovanovich, 2006, p. 18). Students who have difficulties with transitions include students who are ethnic minorities and are of low socioeconomic status (Benner & Graham, 2009; Smith et al., 2013). However, other student groups who have difficulties with transitions include "girls, students with behavior problems, [and] low achievers" (Cauley & Jovanovich, 2006, p. 18). The BICS program was created for a school population that was predominantly African American and of low income. More students may benefit from such a program if it is not limited to such schools: the BICS program may

work well with students most at risk during the transitional point of ninth grade as well as students from different ethnic backgrounds and socioeconomic levels.

A strength of the BICS program was its numerous programmatic components. The components of mentoring, service learning, and leadership activities have been shown in research to be effective in reducing the stress associated with school transitions as well as in preventing dropping out of school (Black et al., 2010; Lagana-Riordan et al., 2011; Uvaas & McKevitt, 2013). Moreover, mentoring is most effective when the mentor receives ongoing training and support, works with the student for at least a year, and meets with the student regularly: mentoring requires long-term commitments (Black et al., 2010; Borden, 2012; Owens & Johnson, 2009; Scheel et al., 2009), and the training that the leaders, advisors and entire faculty received made the transition of mentoring smooth and effective.

Service learning activities are varied and can include school-to-work programs, business partnerships, internships, and apprenticeships; all require community "buy in," collaboration and coordination with businesses and community partners, and reliable transportation (Curtin & Garcia, 2011; Davis & Snyder, 2009). Leadership activities can range from student participation in leadership conferences (which occurs as part of the BICS program) to training and courses on ethics, managing conflict, and motivation, and teamwork to building students' communication, social, and interpersonal skills (Durlak, Weissberg, & Pachan, 2010; Gentle-Genitty, 2009). All of these programmatic components require extensive commitment, school support, training, and resources. As such, it is important to assess the logistics and practicality of such components to guide successful replication of the program at different sites.

An ongoing concern in the field of dropout prevention is that effective programs may not continue if they do not have funding. Well-planned, developed, and implemented dropout

prevention initiatives often continue via "strategies [that] provide the supportive environment and infrastructure in which [a program] is able to thrive" (Duckenfield & Reynolds, 2013, p. 44). The BICS program was likely successful due to the strategy of having one primary advisor at each school coordinating the program and a core group of supportive teachers at each school, all of whom receive ongoing professional development. Another effective strategy is systemic renewal, wherein school leaders in collaboration with teachers and staff engage in a system-wide continuous process of assessing programs, services, practices, and policies that consider the entire school population. The systemic renewal strategy can help to build school resources and advocacy and can often lead to the receipt of funding (Duckenfield & Reynolds, 2013). Dissemination of evidence from this study may help to promote school systemic renewal and increase ongoing continued funding and support for the BICS program.

A second strategy for leadership development is school-community collaboration, which can "provide collective support" to the student body (Duckenfield & Reynolds, 2013, p. 44). The BICS program is not only collaboration among middle and high school administrators, teachers, and staff, but is also school-university collaboration. This is strength of the program and should be replicated, especially as universities typically have more resources than the local public school system (Pyne, Scott, & Long, 2013). One study by Pyne et al. (2013) highlighted a program similar to BICS that was developed between Elon University and the local public school community in Elon, North Carolina. Results documented both challenges and positive outcomes of this partnership. Some of the challenges included logistics (i.e., time commitments, location of programming, scheduling) and the differing "worldviews" between the university and community partners (Pyne et al., 2013). The positive outcomes included the awareness and advancement of advocacy "for real community needs" and the development of additional school

and university partnerships (Pyne et al., 2013). It is quite realistic that the BICS program can have a similar positive impact on the community.

Chapter Summary

Building Individual Capacity for Success (BICS) is a leadership development program that introduces students to opportunities to be proactive in their learning. BICS programming focuses on helping students build strong relationships among their peers, their teachers, and others. As one of the advisors in BICS, I was able to observe and participate in this relationship building. Through an increased sense of belonging, students engaged more fully in school related activities, both academic and beyond. They developed as leaders and when given the chance, often exceeded expectations.

When responsibilities were given to the students in BICS, it did not matter if they were familiar with what was being asked of them or not. Once they were introduced to the basics of what was expected, they were able to create a plan of action to complete the assignment. These assignments were often, but not always, service projects that required a team effort to implement. When the students in BICS presented what they had developed as a team, they were praised for their efforts and they discovered their capacity to contribute substantially to their community. At times, they were given ideas from the advisors that may have had an influence, however, the ultimate decision of how to execute their plans were left up to the students. Delegating to the students this responsibility provided them ownership within the program. In turn, this ownership provided clarity to the student participants of their self-reflected investment into their individual learning and academic success overall. These service learning projects, though not specifically addressed in this dissertation, were likely important to the improved sense of belongingness that the student participants reported.

There is no simplified approach to solving the multitude of complex problems of students leaving school early. However, research-based recommendations such as improving student belongingness and connectedness can be extremely beneficial for all students. These efforts will take sacrifices from all stakeholders if children are to experience success. Abraham Lincoln said it best when he said "The best way to predict your future is to create it" (Pettinger, 2013), therefore, as people who seek to invoke an impressive, and bright future, we must be willing to help create the future we are proudest of, and that starts by educating and never, ever, giving up on a child. They are the future.

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Appendix 1

School Connection Scale

For each item, rate it according to this scale:

1 = Strongly Disagree
2 = Disagree
3 = Uncertain
4 = Agree
5 = Strongly Agree

Items	Rating				
Commitment	①	②	③	④	⑤
I can be a success at this school.	①	②	③	④	⑤
It pays to follow the rules at my school.	①	②	③	④	⑤
My schoolwork helps in things that I do outside of school.	①	②	③	④	⑤
I can reach my goals through this school	①	②	③	④	⑤
Power					
Adults at this school listen to students' concerns.	①	②	③	④	⑤
Adults at this school act on students' concerns.	①	②	③	④	⑤
The principal at this school asks students about their ideas.	①	②	③	④	⑤
I have many opportunities to make decisions at my school.	①	②	③	④	⑤
Belonging					
I can be myself at this school.	①	②	③	④	⑤
I feel like I belong at this school.	①	②	③	④	⑤
I have friends at this school.	①	②	③	④	⑤
I am comfortable talking to teachers at this school about the problems.	①	②	③	④	⑤
Belief					
The rules at my school are fair.	①	②	③	④	⑤
We do not waste time in my classes.	①	②	③	④	⑤
Students of all racial and ethnic groups are respected at my school.	①	②	③	④	⑤
When students have an emergency someone is there to help.	①	②	③	④	⑤