The Impact of a Mentoring Program on Low-Income, High Achieving Students and Their

Possibility of Enrolling in a Four-Year College or University

by

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ABSTRACT

The purpose of this sequential exploratory mixed-methods study was to explore the perceptions of low-income, high achieving students participating in a school-based mentoring program as they related to the needs of these students regarding post-secondary preparedness. A stratified random sample of 40 low-income, high achieving students was selected to participate in the study. The sample consisted of 10 freshmen, 10 sophomores, 10 juniors, and 10 seniors. From this sample of 40, three students from each grade level were randomly selected to participate in focus group interviews. There were four interview sessions conducted by grade level. Data for the qualitative strand were collected using focus group interviews. Interview questions focused on student perceptions of the current mentoring program. Quantitative strand data were collected from the curriculum that was implemented. All 40 participants completed a Student Perception Survey before and after the implementation of the curriculum to determine any changes in college-going behavior or perceived level of preparedness. The qualitative data were analyzed using Creswell's six generic steps approach to analyzing qualitative data. The quantitative data were analyzed using SPSS. The qualitative data revealed four benefit themes which were notifications, careers, comfort, and academic preparedness. The data also revealed four need themes including finances, cost of attendance, location of schools, researching schools, and frequency of meetings. The quantitative data revealed a significant increase in the number of students planning to attend a four-year university and a significant increase in perceived level of post-secondary preparedness after exposure to the curriculum. However, males were more likely to attend a four-year university than females. The findings suggest the current mentoring program needs to include more female role models in post-secondary pathways.

Keywords: low-income, high achievers, mentoring programs, college-going behavior

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DEDICATION

This dissertation is dedicated to all of my students, past, present, and future, who have inspired me and taught me so much more than I could ever teach them.

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CHAPTER 1

Introduction

Background

Today's society is more technologically advanced than it has ever been. It is the responsibility of high schools to produce graduates who are college or career ready in this data-driven world. With all the advancements in technology and education, it would be reasonable to assume that college admission and retention has progressed with the times. Granted the number of students who enroll in U.S. colleges is on the rise, but the proportion of those who enroll and actually earn a degree continues to decline (College Success, 2010).

In 2015, college completion rates fell at all types of colleges and for all age groups. Only 53% of students who entered college in 2009 had completed a degree by 2015. This was a 2.1% decrease compared to the students who entered college the previous year. No matter whether the student was full time or part time, older or traditional, graduation rates declined for all types of students (Stoltzfus, 2015). In light of this trend, the entire blame cannot be found in the lack of commitment by today's high schools; however, high schools still need to be doing all they can to promote college admission and completion for their students.

Increased focus on college success predictors identifies some of the issues leading to the trend of attrition plaguing colleges and universities. There have been many studies on the factors that influence college persistence and completion. Historically, high school GPA and standardized test scores have been predictors of college academic success (Zwick & Sklar, 2005). While these numbers still have a high correlation with college aptitude, there also appear to be non-cognitive predictors that not only affect ability, but also the perseverance of students while in college (Sparkman, Maulding, & Roberts, 2012).

There are several predictors that have been identified that contribute to the perseverance of students in college. One of these predictors is the number of hours spent in extracurricular activities. Students who spent more than 15 hours a week in extracurricular activities were found to have a higher rate of persistence at a four-year college than those who spent fewer hours in extracurricular activities (Sciarra, Seirup, & Sposato, 2016). Students in this study also had a higher level of perseverance in college when they had a history of speaking to their math teachers outside of the classroom while in high school. It is possible that this communication helped students develop the confidence needed to approach and communicate with their professors when they had issues in college classes (Sciarra, Seirup, & Sposato, 2016).

It has been suggested that college students need a safety net and someone who truly cares about them, both personally and academically, in order for them to adjust and persevere. Just providing new students with information can be overwhelming without someone to guide and support them. Many times, students do not know how to interact with their professors appropriately regarding their concerns and needs. Most students do not face academic difficulty or adversity in high school. In college, even high achieving students deal with personal issues that can affect their success. A high achieving student's first instinct is to deal with these issues privately and suffer in silence (Sloan, 2013). The need for adult role models and mentors is apparent at the college level. If students have experience developing these supportive relationships, the relationships developed at the college level will be more secure and constructive.

Although failure to complete a degree program is a substantive issue for today's youth, with college enrollment on the rise there is still one student demographic underrepresented at colleges and universities. Low-income, high achieving students push themselves during high

school to adequately prepare for the academic demand of college; however, many of these students never even apply to a single college or university. If they do apply to a college, it is not typically a more-selective college which would actually be a better match for their ability (Hoxby & Turner, 2013). Many low-income students do not have the necessary access to information comparing the quality and cost of different schools. These students are intimidated by the cost of tuition for a school because they do not understand the difference between the listed cost and the net cost of attendance (Hoxby & Turner, 2013).

Selective colleges desire these low-income, high achieving students to help diversify their student body. Many selective colleges are even more cost-efficient for low-income, high achieving students because of the available scholarships and grants established specifically for this group of learners. Most low-income, high achieving students follow the college application behaviors of other students in their socioeconomic level instead of students in their achievement level. A possible explanation of this pattern is that these students are poorly informed about their financial and academic options (Hoxby & Avery, 2013).

However, not understanding the actual cost of attendance is not the only important information that low-income, high achieving students happen to be missing. These students and their families might believe all colleges and universities are the same. They do not know or understand the differences between graduation rates, possible resources, or demographics when considering a school. These students also do not know how to distinguish which schools are a good fit to fulfill their chosen path. They have no knowledge of the rigor or curricula offered or required to complete their desired degree requirements (Hoxby & Turner, 2015).
 Providing more specific information about the college application and enrollment issues that directly address the concerns of low-income, high achieving students can increase the likelihood

of these students applying not only to college but a more competitive college than they would normally consider. Due to their low socioeconomic status, these students will already qualify for grants. Their grades and test scores will qualify them for scholarships. By taking the time to go over financial options with students, mentors can help the low-income, high achieving students find a college that is the right fit for them, financially and academically (Deutsch & Spencer, 2009).

A school culture that supports and encourages success for all students requires the needs of all students to be identified and addressed. School culture is comprised of both visible and invisible aspects. The surface layer of culture, which can be categorized as climate, can be easily affected and influenced by environmental factors. However, the deeper layer of culture is the supporting values and beliefs which are much more stable and difficult to alter (Fiore, 2001). These layers are descriptive of an organization's culture, including the culture of a school. In order to transform the thinking and behavior of those low-income, high achieving students, a shift in school culture must occur.

According to Fiore (2001), the principal is the person with the most influence over school culture. Principals have the opportunity to support the constantly issued change initiatives by establishing positive school cultures and developing teachers as leaders which in turn has been shown to have positive effects on student achievement (Allen, Grigsby, & Peters, 2015). Principals must also cultivate leadership in other stakeholders to foster school improvement through any type of change initiative (Harvey & Holland, 2012). When considering the implementation of a new initiative focused on student success, the entire school must be on board, especially if the initiative is a school-wide mentoring program that affects everyone.

Mentoring programs have become widely accepted and implemented as interventions for addressing issues with at-risk youth across the country. When designed and implemented appropriately, these programs can result in improvements in student academics, attendance, and behavior. However, poorly planned mentoring programs can result in negative outcomes. It is imperative that leaders wanting to execute these programs successfully research mentoring best practices and devote the time needed to plan and design the program effectively (Anastasia, Skinner, & Mundhenk, 2012).

For a mentoring program to be successful, there are a few best practices that should be used during its implementation. The program should have a formal structure and clear expectations. It should also have ongoing support and self-monitoring (Anastasia et al., 2012). The mentor should also adhere to best practices. Training, commitment, and respect for individuals and families should be priorities for mentors. Mentors need to build relationships through activities and access support when needed (Anastasia et al., 2012).

The effects of a mentoring program depend greatly on the mentor-mentee relationship. Mentors must understand individual relationships and program components. There are several factors that affect the actual relationship. The duration of the relationship and the frequency of contact have the greatest influence. The connections and the mentor's attitude toward the relationship are also important. Interviews and open-ended questions should be used to assess the quality of the relationships (Deutsch & Spencer, 2009).

Statement of the Problem

In light of the research, low-income, high achieving students are underrepresented with regard to college enrollment (Hoxby & Turner, 2013). The guidance counselors at the high school are so busy dealing with day-to-day issues that they leave the upper-level students to do a

lot of things on their own. Plenty of help with financial aid is provided for all students. Through a partnership with the Niswonger Foundation, students at the high school are provided with up to ten financial aid meetings per school year. However, these students really do not understand their college options.

Tennessee Promise (2017) is a scholarship and mentoring program that provides students attending eligible post-secondary institutions in Tennessee with money to cover tuition and fees not covered by other grants and scholarships. Many of the low-income, high achieving students automatically jump at the Tennessee Promise option and attend a local community college. There is nothing wrong with this, but these students do not even realize they can also go ahead and start at a larger institution for free with the financial aid they receive from being low-income, high achieving students. Most of these students are first-generation college students and no one has sat down and really explained the way Tennessee Promise works, how to look into requirements for programs of study, housing options, and other college necessities. Nor do these students know how to determine if a college or university is a good fit academically and financially.

Low-income, high achieving students are not considered "at-risk" due to their academic success. Unfortunately, they are at risk and this fact only supports the research findings of the underrepresentation of low-income, high achieving students enrolled in colleges or universities (Hoxby & Turner, 2013). Therefore, it is needful to examine the impact of a mentoring program ion low-income, high achieving students and their possibility of enrolling in a four-year college or university.

Purpose of the Study

The purpose of this sequential exploratory mixed-methods study was to explore the perceptions of low-income, high achieving students who participated in a school-based

mentoring program at a high school in rural East Tennessee. Perceptions were investigated and analyzed as they related to the needs of these students regarding post-secondary preparedness in order to develop a curriculum to address those needs and increase the number of these mentees planning to enroll in a four-year college or university.

An exploratory mixed-methods study was used for this research. Focus group interviews, a qualitative methodology, were used to gain insight from the low-income, high achieving mentees about the current mentoring program at a high school in rural East Tennessee, their perceived needs from the program, and what they currently felt prepared for with regard to their post-secondary path. A curriculum was developed and implemented in the mentoring program to address the needs identified in the interviews. A random sample of these mentees was asked to identify the college or university at which they were planning to enroll prior to the implementation of the curriculum and again after the curriculum was covered.

Research Questions

Six important research questions arise to address the purpose of this study;

1. What benefits do low-income, high achieving students perceive themselves to gain from the current mentoring program?

2. What issues do low-income, high achieving students perceive themselves prepared to address with regard to their post-secondary path?

3. In what ways do low-income, high achieving students perceive the mentoring program could help prepare them for their post-secondary path?

4. Is there a significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options?

5. Is there a significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options?

6. Is there a significance in the mean level of perceived preparedness for post-secondary pathways among low-income, high achieving students before and after exposure to information about post-secondary options?

Mentoring programs are popular interventions to address the needs of at-risk students. High achieving students are not considered at-risk in most schools regardless of their actual risk factors. Low-income, high achieving students are underrepresented in today's colleges and universities. Many of these students do not have the information they need to select a college or university that would be a good fit for them academically and financially (Hoxby & Turner, 2013). This study was designed to use the perceptions of low-income, high achieving students participating in the mentoring program at a high school in rural East Tennessee in order to design and implement a curriculum to increase the number of these students planning to enroll at a four-year college or university.

Significance of the Study

The purpose of this study was to explore the perceptions of low-income high achieving students participating in an established mentoring program in order to develop a curriculum to address their perceived needs with regard to a post-secondary path. With the development and implementation of a curriculum to address identified needs, the researcher hopes to increase the likelihood that these students will plan to enroll directly at a four-year college and university.

By gaining insight to what low-income, high achieving students perceive as needed information and guidance with regard to college, mentors will help educate students about concerns such as financial options, curriculum demands, and college graduation rates. This will guide students toward making more informed decisions about which colleges and universities would be the best fit for them financially and academically. While further research would need to be conducted, it could be the first step in validating the need and use of mentoring programs to address all students' needs.

Definition of Terms

The following terms are defined to ensure understanding and standardization of definitions throughout the paper. The researcher developed all definitions not accompanied by citations.

<u>At-risk:</u> In this study, at-risk factors include performing below grade level, poor attendance, having discipline problems, low-income socioeconomic level, and first-generation college students.

<u>Low-income, high achieving students:</u> A low-income student is a member of a family which is at or below the current poverty level with a cumulative grade point average of 3.75 or higher.

<u>Poverty:</u> Poverty level is identified by those students who qualify for free or reduced lunch.

<u>School-based mentoring program:</u> School-based mentoring program refers to the current mentoring program being utilized at a high school in rural East Tennessee, in which all students at the high school participate.

Student Perception: Student perceptions pertain to the students' own unique experiences in the school-based mentoring program at their school with regard to benefits of the program, level of preparedness for a post-secondary path, and how students feel the current mentoring program could address any issues of preparedness. Student perceptions will be measured qualitatively through focus group interviews based on grade level.

Delimitations

The current mentoring program at the high school was selected because it has been in place for two years. This program has already shown improvements in attendance, behavior, and academic performance for "at-risk" students. It was easy to adjust the mentor assignments and curriculum to directly address low-income, high achieving students while still serving the need of rest of the student body. All the students involved have participated in the mentoring program for at least one year and are accustomed to the mentor relationships, meetings, and curriculum presentation.

Limitations

One limitation of the study is that every mentor-mentee relationship is different. There is also a possibility that the match between the mentor and mentee was not ideal and therefore positive relationships did not develop. Both of these limitations led to different results based on the effectiveness of the mentor-mentee relationship. Another limitation is since the initial qualitative data were collected in focus groups, some students might not have felt comfortable expressing their true perceptions and opinions about the mentoring program. Students may have felt pressured to only provide positive responses due to being in a group setting.

Study Organization

This dissertation is organized into five chapters. Chapter 1 introduced the underrepresentation of low-income, high achieving students attending colleges and universities and the background on the positive impacts mentoring programs have had on at-risk students. The statement of the problem, the purpose of the study, and the significance of the study was also introduced. Definitions of terms, delimitations, and limitations of the study were also provided.

Chapter 2 provides a literature review related to low-income, high achieving students. It describes their demographics, college-going behaviors, and research supporting those behaviors in order to support the concept that these students are at-risk. Chapter 2 also provides information describing and defining successful mentoring programs for at-risk youth. It describes the importance of programs which target at-risk youth and the different types of mentoring programs which have been used to provide support. A final focus on school-based mentoring programs provides information concerning school culture, best-practices, characteristics of successful mentor-mentee relationships, and challenges that may be faced when implementing a mentoring program.

Chapter 3 outlines the methodology for this study. The research design and rationale, human subject considerations and ethical considerations are addressed in this chapter. The instrumentation, data collection procedures, and analytic techniques for both the qualitative and quantitative data are also described. Chapter 4 presents the results of the study. Chapter 5 provides a discussion of the findings and suggestions for future research.

CHAPTER 2

Literature Review

Introduction

Students applying and enrolling in a post-secondary institution is more common today than it has ever been before. However, although more students are enrolling at colleges and universities, the proportion of those completing a degree program is on the decline. In a comparison of graduation rate data from 2007, the United States ranked 12th among 36 countries with a rate of 40.4%. In 2010, only 40 percent of adults ages 25 -34 had a post-secondary degree (College Success, 2010). However, according to the U.S. Department of Education's National Center for Education Statistics, the graduation rate for 2017 was up to 84.6% (www.edweek.org). Although high school GPA and standardized test scores still relate to a student's propensity for academic success (Zwick & Sklar, 2005), there are several personality and social factors which have been identified as predictors for perseverance at the post-secondary level (Sparkman, Maulding, & Roberts, 2012).

The educational systems in the United States have long been concerned with the development and success of at-risk students. Historically, at-risk students were identified as minorities, students from low-socioeconomic backgrounds, and/or students with disabilities. However, other characteristics such as below-grade-level performance and chronic absenteeism have also been included as descriptors (London, Sanchez, & Castrechini, 2016). High achieving students have not been considered at-risk, regardless of whether or not these demographics apply to them. However, around 23% of students across the nation in the top academic quartile who are in the bottom socioeconomic quartile do not even take the ACT or SAT (Pennamon, 2018).

There are several factors which contribute to the fact that most low-income, high achieving students do not attend post-secondary schools. Some students merely cannot afford the costs incurred from mandatory entrance exams, application fees, and travel expenses (Hoxby & Turner, 2013; Pennamon, 2018). Others do not have access to necessary information about college choice and college fit (Hoxby & Turner, 2015). This study was designed to assess the impact of a school-based mentoring program on the intended enrollment of high achieving, low-income students attending a high school in rural East Tennessee.

The review of literature will begin by exploring the history of the efforts to increase student achievement. It will include the effects of increased demands on schools to improve student achievement, college readiness, and college admission. The components of successful college behaviors including student attributes, parental involvement, and school involvement will be described to identify areas in which low-income, high achieving students may be deficient. Evidence-based research will be used to describe the demographics, college-going behaviors, and at-risk factors. Mentoring programs will be introduced as one intervention which has been shown to aid at-risk students with academic achievement and post-secondary adjustment. The components of successful school-based mentoring programs will be described.

The role of school culture and educational leadership will also be discussed with respect to the importance of implementing a school-wide change initiative in addition to the research supporting the positive effects of school culture on student achievement and success. Mentoring program best practices will be discussed in support of successful mentoring programs with a focus on mentor-mentee relationships. The characteristics of successful relationships will be described using evidence-based research to further stress the importance of these relationships. Finally, possible challenges related to implementing program initiatives, developing mentoring

programs, and establishing successful mentor-mentee relationships will be introduced and discussed.

Increasing Student Achievement

Improving student achievement is the ultimate goal of any educational organization. With increased rigor and state standards, the demands placed on schools to produce graduates who are college or career ready is amplified. College admission rates are currently higher than they have ever been, however, the proportion of students who enroll and actually complete a degree is declining (College Success, 2010). No matter whether the student is full time or part time, older or traditional, graduation rates have decreased for all types of students (Stoltzfus, 2015).

The current generation of college students and their parents view post-secondary education with a consumer mindset. Education is categorized as goods or services in an economic transaction where colleges and universities are the suppliers and students and parents are the consumers (Couture, Schwehm, & Couture, 2017). Educators must take note of this change in the perception of education and develop a positive school culture which fosters an intrinsic motivation to succeed while developing autonomy and leadership skills in today's students.

As a result, schools, principals, and teachers have been given the responsibility to see these new standards are met through the district and personal accountability. The factors that constitute accountability and the methods used to assess those factors have constantly been reviewed, revised, and implemented. In addition to the new accountability measures, the school report cards have been shown to affect public perceptions about schools merely by the way they are formatted (Snyder & Saultz, 2014). School report cards provide data on principal and teacher

accountability in addition to student achievement. Educators are addressing accountability issues from all directions, most of which are beyond their control.

Educational reform has been an ongoing process for over five decades. In earlier years, the focus of educational reform was based on equality for all students. In 1954, the landmark Supreme Court Decision in *Brown vs. Topeka Board of Education* sparked a catalyst of educational reform. This decision not only mandated desegregation of public schools, but it opened the door for more human rights movements in the educational forum (Franklin, 2005). The goal of providing every student with an equal opportunity for education continued to promote educational reform for the next two decades.

Educational education continued to address and improve equal access to education for all students from the 1970s to the 1980s. In 1975, the Education for All Handicapped Children Act was passed by Congress. At this time, there were over eight million children with disabilities whose needs were not being met. Among those children, four million had not been provided with appropriate educational services and over one million had not received any type of public education (Essex, 2016). This legislation was the beginning of the push for equality in education for students with disabilities. It has been reviewed, revised, amended over the last few decades and became known as The Individuals with Disabilities Education Act (IDEA) in 1990 and then The Individuals with Disabilities Education Improvement Act (IDEIA) in 2004.

Under IDEA, children with disabilities ages three to twenty-one are guaranteed a free, appropriate education in public schools based on their individual needs. Section 504 of the Rehabilitation Act of 1973 provides accommodations and assistance to students with disabilities not covered under IDEA (Essex, 2016). For almost 30 years, the goal of educational reform was to provide equivalent educational experiences for all students. However, in the 1980s there was a

shift from providing education to producing educated students. Merely giving students the opportunity to learn was no longer enough as international competition for commerce increased.

Then in 1983, a report from the National Commission on Excellence in Education (NCEE) turned the focus of education reform to student achievement. "A Nation at Risk" highlighted the lack of high standards and expectations for students (NCEE, 1983). This report identified indicators that the prosperity of the nation as a whole was at-risk due to the low expectations of the educational system. The high level of illiteracy, drops in SAT scores, and the inability of the nation's youth to compete academically with students from other nations were reported concerns in need of addressing (NCEE, 1983).

As a result, the NCEE recommended improving student achievement and obtaining a level of excellence by addressing specific areas of education. Curriculum and standards, teacher quality, leadership, and financial support were all noted areas for improvement (NCEE, 1983). Stakeholders took action by setting high expectations of students, revising academic standards, and implementing measures of accountability (Peterson, 2003). "A Nation at Risk" was the initial catalyst for the educational reform of expectations and standards. This was the first time there was a defined line between equality and equity in education. The shift went from treating all students the same to providing all students what they need to be successful.

Continued focus on improving student achievement, perpetuated more input and guidance from the federal government. The No Child Left Behind Act of 2001 (NCLB) has kept educational accountability in the political and media spotlight for almost two decades. The act was passed to evaluate schools' effectiveness with respect to student achievement based on standardized test scores. Schools are required to make Adequate Yearly Progress (AYP) under the guidelines of NCLB (Mathis, 2004). The responsibility of student achievement and growth

falls completely on the schools. There are accountability measures for principals and teachers, but no true accountability is placed on the students.

Research has shown that the educational reform initiated by NCLB has not resulted in significant gains for students across the country. While some progress has been made in closing the gaps in math, the gains are relatively small. Through a comparative time-series analysis of state assessment data, Lee and Reeves (2012), used the National Assessment of Education Progress (NAEP) scores to determine pre- and post-NCLB effects on student achievement. According to the data, progress in reading has remained the same and even slowed down for certain racial and socioeconomic subgroups (Lee & Reeves, 2012). There have been many negative consequences from NCLB including narrowed curriculum, teaching to the test, manipulating the testing pool, and even cheating by principals and teachers. Low-income schools face even more challenges when attempting to improve student achievement. By holding these schools solely accountable for student performance is unfair. These schools face challenges that stem from low-socioeconomic backgrounds which are beyond their control (Ladd, 2016).

In 2009, the Obama administration created the Race to the Top Program as an incentive for states to improve educational policy and as a result, student achievement. This initiative was part of the American Recovery and Reinvestment Act of 2009 which was designed to stimulate the economy, create jobs, and invest in response to the Great Recession (Howell, 2015). States were asked to assess their current status and design comprehensive plans to address educational standards, teacher effectiveness and evaluation, college and career ready students, and turn around low performing schools (Weiss & Hess, 2015). This incentive created competition between states for extra educational funding from the government. States were subject to a monitoring process which included annual performance report cards, accountability procedures,

and onsite visits (Howell, 2015). Twelve states were awarded money under Race to the Top. Although all twelve of those states have fallen short on their promises under the legislation, Race to the Top has increased and improved educational policies with respect to expectations and accountability (Weiss & Hess, 2015). While student achievement is still not where it needs to be, improvements have been made.

It is evident that educational reform has come in waves across the nation. From desegregation to equal access to higher standards, education has undergone major shifts with respect to serving students. Improving student achievement, requiring more courses in core subjects such as English, math, and science, and preparing students to graduate career or college ready have all pushed schools and teachers to improve curriculum and instruction (Mehta, 2015). While international comparisons stack the odds against American students, the fact is competition in a global society is real and therefore schools must prepare students to be successful in that environment. As a result, the rate at which this global economy is changing only increases the challenges being placed on educators (A Nation Accountable, 2008).

In contrast to *The Constitution of the United States* placing the responsibility of education on individual states, the federal government's involvement in education has continued to increase (Guthrie & Springer, 2004). High school curriculum has been revamped to increase rigor and achievement and to prepare students for success in international economic competition. Fewer electives and more core classes in English, math, and science with improved standards have increased the academic demands of students. Longer school days and school years have been implemented to increase instruction time (Mehta, 2015). All of these changes have also altered accountability measures for schools and teachers.

It has been suggested that accountability should move toward a more holistic approach than what is assessed through standardized testing. Using school visits, interviews with principals and teachers, and surveying parents a more comprehensive evaluation of school effectiveness. Although academic progress is important, addressing student needs, developing life skills such as responsibility and citizenship, and helping students learn to develop positive interpersonal relationships are all being developed into today's schools (Ladd, 2016). However, none of these are taken into account when determining school effectiveness. Everything is determined by a standardized test score. It is vital to the education of the entire student for school leaders to practice leadership styles which support this type of education. The ultimate goal of schools should be to produce productive members of society, not adults who can regurgitate information.

College success

Student characteristics. Although high school GPA and standardized test scores have been used to predict college success, these scores focus on students' academic potential (Zwick & Sklar, 2005). However, there are several predictors that have been identified to contribute to the perseverance of students in college. Academic self-efficacy and the desire to learn have been identified as strong predictors of perseverance at the post-secondary level (Fauria & Zellner, 2015; Hannon, 2014; Honken & Ralston, 2013). Studies have investigated the social and emotional characteristics of students who had performed extremely well in high school and the effects of these attributes on performance in their freshman year of college. Honken and Ralston (2013) focused on the dynamics of self-control, homework behaviors, and first semester GPA among full-time engineering students. Students who lacked self-control and poor homework habits in high school had lower first-semester college GPAs. This highlights the importance for students to

develop good social and emotional habits in high school in order to continue those behaviors in college.

Classroom engagement, study habits, and grit in high school have a major effect on a student's ability to continue onto a post-secondary program through graduation. Attendance, classroom participation, and time management skills have all been shown to improve persistence at the post-secondary level (Gentry, 2012; Muenks, Wigfield, Yang, & O'Neal, 2017; Terrence, 2017). Gentry (2012) asked 32 students enrolled in a teacher education program to describe their own classroom behavior, study habits, and time management skills. Participants identified being prepared and engaged in class, submitting assignments on time, and their perception of their own ability to succeed had the greatest impact on performance and grades. These behaviors can be cultivated within students in their early academic years.

In order to persist through a post-secondary program, students must also learn coping skills. Catherine Sloan is a program development associate at InsideTrack. This is a college coaching service which helps colleges and universities improve enrollment, retention, and graduation. Recognizing the initial adjustments of college freshman such as academic rigor, financial demands, and the maturation process of students, colleges must provide resources and support for students early in their collegiate career. During her service, Sloan found that the most common reason students gave for dropping out or transferring to another school was a financial difficulty. However, upon further investigation, underlying symptoms of personal effectiveness, mental and physical health, and social distress were the main factors in student decisions (Sloan, 2013).

Beyond personal characteristics, social behaviors outside of the classroom have also been identified as predictors of college success. One of these predictors is the number of hours spent in

extracurricular activities. Students who spent more than 15 hours a week in extracurricular activities were found to have a higher rate of persistence at a four-year college than those who spent fewer hours in extracurricular activities (Sciarra, Seirup, & Sposato, 2016). Sciarra et al. conducted a longitudinal study of 7,271 high school students. Data were collected from student surveys in 2002, 2004, and 2006. Students in this study had a higher level of perseverance in college when they had a history of speaking to their math teachers outside of the classroom while in high school. It is possible that this communication helped students develop the confidence needed to approach and communicate with their professors when they had issues in college activities (Sciarra, Seirup, & Sposato, 2016).

       Parent Involvement. Family dynamics have evolved over the last few decades. Immigration has diversified our society both racially and ethnically. There has also been a diversification in the traditional family structure. Single-parent homes, family member guardians, and same-sex parents are becoming more prevalent than ever before. With regard to parent involvement in schools, parent needs are also evolving. Language barriers, economic struggles, unstable partnerships, and lack of communication are issues which must be addressed by today's schools to help promote parental involvement. While parental engagement in education continues to enhance academic success, schools need to evolve with these family dynamics to ensure they are connecting to all parents (Crosnoe & Benner, 2012).

       According to Norvilitis and Reid (2012) surveyed 217 college students from upper-level classes to investigate the relationship between academic and social success. Although GPA predicted mastery of skills, motives to attend college, study skills, and parental encouragement were linked to academic adjustment of students in college. Parents can help students develop dependability, perseverance, and a strong work ethic (Leonard, 2013). However, when parents

and other family members do not have college degrees, they may lack the experience of dealing with post-secondary demands and provide insufficient levels of emotional support or lack of understanding about the persistence needed to succeed at that level (Sparkman, Maulding, & Roberts, 2012).

In a study by Kim (2010), students from two International Baccalaureate Degree Programs and one Governor's School were asked to identify the factors they considered important and influential on their career choices. Students listed parents' interests and expectations. Students selected courses of study which would prepare them for post-secondary education paths that would lead to careers their parents supported and promoted to the students (Kim, 2010). Students want their parents to be involved and supportive in their education. The multiple facets of parent involvement have been shown to increase student achievement and the probability of students continuing their education beyond high school (Rockwell, Andre, & Hawley, 2010).

In another study, eleven grant-supported projects were implemented in rural Appalachian counties in Mississippi, which aimed at increasing the college-going rate for rural high school students. The leaders reported that campus visits, ACT workshops, mentors, goal setting, and career information were the factors that had the greatest impact on the college-going rate. The leaders stressed the importance of involving mentors, creating job shadowing opportunities, and providing career information to students (King, 2012). Mentors provided information and encouragement that rural parents were unable to provide due to lack of experience with college demands.

High School Involvement. High school is the stepping stone for students with respect to their post-secondary path. Regardless of whether the student is planning to go to a college or

university, a trade school, or directly into the workforce, it is the responsibility of the high school to prepare students to be successful once they move into the adult world. High schools have developed specific course pathways for students to prepare for their chosen path (Hein, Smerdon, & Sambolt, 2013). High schools are redesigning their courses to offer more opportunities for students to acquire college credits prior to high school graduation.

When students are exposed to more rigorous and college-like programs in high school, their potential for success in college increases. Early college design combines high school and college in the same environment. It brings together rigorous study and support to allow students to push themselves in a safe environment (Ndiaye & Wolfe, 2016). More focused academic planning for high school is necessary to ensure students get the best benefit from their coursework. Career-related programs, Advanced Placement classes, and dual enrollment classes should be reviewed and strengthened to provide students with more knowledge and experience to aid students in choosing a career path. Additionally, partnerships within the community can provide students with the opportunity to make connections with professionals currently working in specific careers (Kim, 2013; Ndiaye & Wolfe, 2016). Providing more diverse opportunities for students in high school allows students to better explore their post-secondary options.

Some high schools are completely redesigning their curriculum structure in order to parallel a student's high school experience with the college experience. G.W. Carver High School of Engineering and Science in Philadelphia, Pennsylvania is a special admissions school with programs designed to mirror the demands, norms, and expectations of college. The goal is for students to graduate and move onto college with familiarity and confidence in navigating college life (Domers, 2017). Although this is a unique high school option for several reasons, public high

schools could work harder to align the experiences of their students more closely with what will be expected of them at the next level.

Low-Income, High Achieving Students

High schools are failing to reach low-income, high achieving students in the United States. Low-income students constitute over half of the current student population in public schools (Pennamon, 2018). While there are many barriers to college enrollment faced by this population, the biggest barriers are lack of access to advanced learning opportunities and access to standardized tests. While many school systems have programs in place to offset or cover the charge for the ACT or SAT, around 23% of low-income, high achieving students never take either exam (Pennamon, 2018). Failing to meet this college admission requirement due to lack of access is preventing these students from advancing their academic careers.

Many low-income, high achieving high school students become first-generation college students. Due to the lack of college experience of their parents, these students can develop numerous misconceptions about attending college. These students do not understand important attributes about specific colleges such as the net cost, graduation rates, best-fit institutions, rigor, student demographics, or curriculum (Hoxby & Turner, 2015). It has been suggested that while high schools should focus on improving GPA and standardized test scores to ensure college success, these improvements are nullified or ineffective if students choose to attend low performing colleges and universities (Roderick, Holsapple, Kelley-Temple, & Johnson, 2014).

Although failure to complete a degree program is a substantive issue for today's youth, with college enrollment on the rise there is still one student demographic underrepresented at colleges and universities. Low-income, high achieving students push themselves during high school to adequately prepare for the academic demand of college, however many of these

students never even apply to a single college or university. If they do apply to a college, it is not typically a more-selective college which would actually be a better match for their ability (Hoxby & Turner, 2013). Many low-income students do not have the necessary access to information comparing the quality and cost of different schools. These students are intimidated by the cost of tuition for a school because they do not understand the difference between the listed cost and the net cost of attendance (Hoxby & Turner, 2013).

However, not understanding the actual cost of attendance is not the only important information that low-income, high achieving students happen to be missing. For first-generation college students, parents' lack of college experiences can lead to insufficient levels of emotional support and understanding. These parents have no knowledge of the commitment required by their children to persevere down a college path (Sparkman, Maulding, & Roberts, 2012). Students and their families might believe all colleges and universities are the same. They do not know or understand the differences between graduation rates, possible resources, or demographics when considering a school. These students also do not know how to distinguish which schools are a good fit to fulfill their desired path. They have no knowledge of the rigor or curricula offered or required to complete their specific degree requirements (Hoxby & Turner, 2015).

Low-income, high achieving students help to diversify the student body for many colleges. The availability of scholarships and grants actually make many selective colleges more cost efficient for low-income, high achieving students. Unfortunately, most low-income, high achieving students do not follow the college application behaviors of other students in their achievement level. These behaviors of low-income, high achieving students follow more closely to students in the same socioeconomic level. A lack of information about financial and academic

options has been considered a possible explanation of this behavior pattern (Hoxby & Avery, 2013).

It has been suggested that college students need a safety net and someone who truly cares about them, both personally and academically, in order for them to adjust and persevere. Just providing new students with information can be overwhelming without someone to guide and support them. Many times, students do not know how to interact with their professors appropriately regarding their concerns and needs. Most students do not face difficulty or adversity academically in high school. In college, even high achieving students deal with personal issues that can affect their success. A high achieving student's first instinct is to deal with these issues privately and suffer in silence (Sloan, 2013). There is an apparent need for adult role models and mentors at the college level. If students have had experience developing these supportive relationships, the relationships developed at the college level will be more secure and constructive.

Mentoring Programs

Mentoring programs have become widely accepted and implemented as interventions for addressing issues with at-risk youth across the country. When designed and implemented appropriately, these programs can result in improvements in student academics, attendance, and behavior. However, poorly planned mentoring programs can result in negative outcomes (Komosa-Hawkins, 2009). It is imperative that leaders wanting to execute these programs successfully research mentoring best practices and devote the time needed to plan and design the program effectively.

There are many different types of mentoring programs. One-on-one mentoring programs are typically used to help students academically with respect to tutoring, time management, and

remediation (Tolbert & Maxson, 2015). There are one-to-one mentoring opportunities in which students are paired with a professional within their community in order to shadow the mentor and gain insight into possible career paths (Kim, 2010). School-based mentoring programs have increased as interventions for at-risk students. After-school mentoring programs can be designed for one-on-one or group meetings. Again, these sessions are usually focused on catching students up in academic areas where they have fallen behind (Anastasia et al., 2012). There are many other possible benefits to school-based mentoring programs if the school culture provides support and the program follows best practices.

School-Based Mentoring Programs

School culture. Today's schools are under ceaseless scrutiny from all levels of stakeholders which demands constant change, reform, and redirection toward improving student achievement. Administrators, principals, and teachers consistently receive information on new requirements and expectations, sometimes even after the school year is more than halfway over. This requires a new type of leadership compared to the educational leadership styles just a decade ago. As education continues to evolve, schools must evolve to meet students' needs. In order for schools to evolve, all levels of personnel must evolve. Change is inevitable in education. Today's educational leaders must know and understand how to initiate change, move forward, and sustain progress.

According to Daft (2015), the culture of an organization is made up of key values, ideas, beliefs, and standards shared by members of the organization. Culture is comprised of both visible and invisible aspects. The visible aspects are characteristics of the organizational environment which can be seen or heard during routine operations. The invisible aspects are comprised of deeper values and shared understandings that are developed over time through the

experiences, relationships, and interactions between the members of the organization (Daft, 2015). The surface layer of culture, which can be categorized as climate, can be easily affected and influenced by environmental factors. However, the deeper layer of culture is the supporting values and beliefs which are much more stable and difficult to alter (Fiore, 2001). These layers are descriptive of an organization's culture, including the culture of a school.

While a clear mission statement, shared vision, and schoolwide goals are important contributors to improvements in student achievement, the culture of the school is the foundation on which all of these ideas are based. School culture is the thread which binds all of these pieces together (Fiore, 2001). Effective leadership strategies of principals can support and develop positive school cultures that are conducive to improving student achievement. Maintaining high expectations, creating an environment that supports taking risks, providing data to stakeholders, and creating a student-focused culture are all characteristics of principals who increase student achievement (Ash, Hodge, & Connell, 2013). Although developing a positive school culture begins with an effective principal, it takes active participation from all stakeholders to actually achieve that culture. Positive school culture can only exist when all stakeholders are included and share ownership in the culture (Fiore, 2001).

According to Fiore (2001), the principal is the person with the most influence over school culture. Principals must be visible and communicate with all stakeholders in order to develop the school culture they desire. Principals are role models. If they want others to be passionate about their school, principals must exhibit this passion themselves. Principals must understand their responsibilities, stay organized and positive, and take pride in their schools (Fiore, 2001). They must share leadership when possible and practice stewardship as servant leaders. Only when principals practice these behaviors, can they positively change the culture of their school.

Effective principals have to cultivate leadership in other stakeholders to foster school improvement (Harvey & Holland, 2012). Focusing on shared leadership in addition to clear descriptions of goals and strategies will make the establishment of a positive school culture more likely. By developing teacher leaders, principals can create an extended branch of school leadership and empower the faculty at the same time. While relinquishing control may be difficult at first, by personally training teacher leaders, principals can make certain the beliefs and actions of these teacher leaders align with the goals for the school culture (Wilhelm, 2013). Teachers can take the necessary steps at the classroom level to model, teach, and set the expectations conducive to the school culture they are trying to establish.

Teachers have the most interaction with students during the school day. They have the ability to provide students with examples of leadership through modeling with their own behavior and through the curriculum. Teachers have the opportunity to provide lessons to students which define and explain leadership roles. They can also support these concepts by exposing students to effective leaders throughout history and show students real-world applications of leadership skills (Parlar, Turkoglu, & Cansoy, 2017). Work ethic, social skills, leadership skills, and perseverance are all requirements for student success which can be addressed and developed through positive school cultures.

School culture sets expectations both academically and behaviorally for students. It does not matter how engaging a lesson is or how strong the classroom management abilities of a particular teacher might be, the culture of the school determines acceptable and unacceptable student behavior (Boyd, 2012). Merely having a code of conduct does not create a school culture that addresses discipline. School leaders must be involved in defining and promoting behaviors

that are supportive of positive school culture. All classes offer opportunities for students to develop communication skills, teamwork, goal setting, and responsibility, all of which are characteristics of effective leaders (Daft, 2015). Kalinovich and Marrone (2017) even recommend having students review scholarly readings about shared leadership. By providing students with examples from different occupations and fields of study, it is more likely to motivate students to engage in leadership opportunities. It is the responsibility of teachers to provide students with the opportunity, guidance, and support to develop these skills. This not only improves school culture but better prepares students for the future.

Best practices. The effects of a mentoring program depend greatly on the mentor-mentee relationship. Mentors must understand individual relationships and program components. There are several factors that affect the actual relationship. The duration of the relationship and the frequency of contact have the greatest influence. The connections and the mentor's attitude toward the relationship are also important. Interviews and open-ended questions should be used to assess the quality of the relationships (Deutsch & Spencer, 2009).

A needs assessment should be the initial task when developing a mentoring program. Preferably, students should be allowed to provide information and requests pertaining to their individual needs. An advisory council should be put in place to act as a liaison between the school and the community. Roles need to be communicated and explained explicitly. Standards need to be created and implemented regarding recruitment, screening, and training of mentors. Care must be used when matching mentors to mentees to help foster positive relationships. Mentoring programs should be monitored and evaluated at regular intervals to ensure the programs are truly providing for the needs of the youth being served (Komosa-Hawkings, 2009).

Standards need to be created and implemented regarding recruitment, screening, and training of mentors. Care must be used when matching mentors to mentees to help foster positive relationships. Mentoring programs should be monitored and evaluated at regular intervals to ensure the programs are truly providing for the needs of the youth being served. Family involvement needs to be encouraged and included in the program. Students see better success when their parents are involved in their lives. The program should be made visible and accessible to the community. The youth are the future and therefore, the community should be invested in them. Although most mentoring programs focus on the mentor-mentee relationship, there are many more people necessary for program success beyond one-on-one relationships (Komosa-Hawkings, 2009).

Successful mentor-mentee relationships. The effects of a mentoring program depend on the mentor-mentee relationship. Mentors must understand individual relationships and program components. There are several factors that affect the actual relationship. The duration of the relationship and the frequency of contact have the greatest influence. The connections and the mentor's attitude toward the relationship are also important. Interviews and open-ended questions should be used to assess the quality of the relationships (Deutsch & Spencer, 2009).

The quality of mentor-mentee relationships can vary in quality. The amount of time and the frequency of contact between the mentor and the mentee greatly affects the relationship. The longer the relationship is sustained with consistent meaningful contact, the greater the effect of the mentor on the mentee (Deutsch & Spencer, 2009). With respect to school-based mentoring, teachers must be open and available to students. They must also be willing to invest their time and energy into their mentees (Tolbert & Maxson, 2015). A strong, meaningful mentor-mentee relationship is the foundation of a successful program.

The mentor's approach also greatly affects the relationship. Strong emotional connections between mentors and mentees have been associated with better outcomes. Mentors must be supportive and open. They must be understanding and non-judgmental (Deutsch & Spencer, 2009). Mentors must establish trust with their mentees. Once the relationship is formed, mentoring may begin. In a school-based mentoring program, these relationships allow teachers to help students with issues beyond the classroom such as poverty, broken homes, future plans, and self-worth (Deutsch & Spencer, 2009). With this in mind, school-based mentoring programs can be so much more than academic tutoring sessions.

Challenges. Mentoring programs are popular interventions to address the needs of at-risk students. High achieving students are not considered at-risk in most schools regardless of their actual risk factors. Low-income, high achieving students are underrepresented in today's colleges and universities. Many of these students do not have the information they need to select a college or university that would be a good fit for them academically and financially (Hoxby & Turner, 2013). This study is designed to use the perceptions of low-income, high achieving students participating in the mentoring program at high school in rural East Tennessee in order to design and implement a curriculum to increase the number of these students planning to enroll at a four-year college or university.

Providing more specific information about college application and enrollment issues that directly addresses the concerns of low-income, high achieving students can increase the likelihood of these students applying not only to college but also to a more competitive college than they would normally consider. Due to their low socioeconomic status, these students will already qualify for grants. Their grades and test scores will qualify them for scholarships. By taking the time to go over financial options with students, mentors can help the low-income, high

achieving students find a college that is the right fit for them, financially and academically. Mentors can help fill the gaps for students who have parents or guardians with limited college experience.

Summary

Educational reform in the United States has been an ongoing process for over 50 years. Early on, school desegregation in the 1950s and providing access to all students in the 1970's regardless of any disability, quality in education was the driving force of reform (Essex, 2016; Franklin, 2005). However, "A Nation at Risk" changed the focus of education from equality to equity in the 1980s, which continues today (NCEE, 1983). Simply providing students with the opportunity to learn was no longer sufficient. Expectations, academic standards, and accountability have all become keywords associated with education. International student comparisons forced the United States to create legislation to increase student achievement and global competition (Lee & Reeves, 2012; Peterson, 2003; Weiss & Hess, 2015). The increased demands on schools to improve student achievement, college readiness, and college admission are constantly evolving.

Although graduation rates have increased over the last decade, as well as the number of students attending a post-secondary school, the proportion of students actually completing a degree program has not increased (College Success, 2010; Stoltzfus, 2015; www.edweek.org). As society becomes more and more global, the ability of students to compete with their international peers is more important than ever. While academic achievement and performance are typically the indicators used to project post-secondary success, there are many other variables affecting student outcomes. The components of successful college behaviors including school involvement, parental involvement, and student attributes have all been shown to affect student

achievement (Zwick & Sklar, 2005; Sparkman et al., 2012). These findings have pushed schools to educate the whole student which includes emotional, behavioral, and social skills in addition to academic skills.

The purpose of this study was to explore the perceptions of low-income, high achieving students participating in an established school-based mentoring program in order to develop a curriculum to address their perceived needs with regard to a post-secondary path. A curriculum was developed and implemented to address identified needs to determine any effect on the likelihood students would plan to enroll directly at a four-year college and university. While mentoring programs are being widely implemented as interventions for at-risk youth, they are typically not designed to address the needs of high achieving students (Komosa-Hawkings, 2009).

Low-income, high achieving students are not considered "at-risk" due to their academic success. However, the underrepresentation of low-income, high achieving students enrolled in colleges or universities indicates these students are an "at-risk" population (Hoxby & Turner, 2013). Many times, these students are first-generation college students whose parents lack any college experience to help direct their children (Hoxby & Turner, 2015). Unfortunately, most low-income, high achieving students follow the post-secondary behaviors of peers in the same socioeconomic class rather than their peers at the same academic level (Hoxby & Avery, 2013). By providing the support and guidance these students need to understand financial and academic options, schools can help students determine which post-secondary path is the best fit for them.

Mentoring programs are one way low-income, high achieving students can receive the information, advisement, and support they are missing (Kim, 2010). Historically, mentoring has been used as a remediation tool for struggling students (Anastasia et al., 2012). However,

mentoring is flexible with different types of programs which can be implemented. Mentoring programs have been widely implemented across the country and have provided effective benefits for at-risk youth (Deutsch & Spencer, 2009). School-based mentoring allows teachers to establish meaningful relationships with students based on the frequency of contact within the school day (Anastasia, et al., 2012).

When designing a school-based mentoring program, school culture is a vital component. Principals must model and communicate the expectations and standards set by the culture of the school (Fiore, 2001). Only then can a mentoring program become embedded in the community of the school. The use of mentoring best practices and the importance of the mentor-mentee relationship are required to increase the likelihood of a successful school-based mentoring program. Programs must be evaluated regularly and adjusted as needed (Komosa-Hawkings, 2009).

Although mentoring programs have been successful over the years, they are not without their challenges. The match between the mentor and the mentee is the greatest challenge to a successful program. If the relationship is terminated early, the mentor does not have a good approach, or no level of trust is ever established, then the costs outweigh the benefits. It is imperative program administrators put assessments in place to continually evaluate the program and make adjustments when needed. Even though there are some costs involved when implementing a school-based mentoring program, the student outcomes from a successful program can be priceless.

CHAPTER 3

Research Design and Methods

Introduction

In 2016, a school-based mentoring program was implemented at a high school in rural East Tennessee which focused on what was considered the 20% most at-risk students based on attendance, grades, and behavior. Mentors volunteered and met with students as often as possible. With the improvements that were seen in the pilot program, it was decided to extend the program to the entire student body and faculty the following year.

When the students registered for classes in the spring of 2017, they also selected three faculty members to serve as their mentor for the next school year. Students chose three possible options to ensure they were matched with a mentor they liked in order to establish relationships more quickly. Freshmen were not allowed to choose a mentor because they had no knowledge of the high school faculty. These students were randomly assigned to a mentor.

During the program at that time, mentors met with mentees as a group once a month and had a curriculum to cover in mentoring classes. That curriculum addressed skills such as creating resumes, applying to college, and participating in job interviews. While all students "benefitted" from the curriculum being covered, there were still unique student needs not being met. The current mentoring program at the high school was used to implement a curriculum that addressed student-identified needs regarding post-secondary pathways.

The purpose of this sequential exploratory mixed-methods study was to explore the perceptions of low-income, high achieving students who participated in a school-based mentoring program at a high school in rural East Tennessee as they related to their needs regarding post-secondary preparedness. Based on the needs identified, a curriculum was

implemented to address those needs and increase the number of these mentees planning to enroll in a four-year college or university.

This chapter provides a rationale for the exploratory sequential mixed-methods design of the study. The population and sample used in the study are described. Data collection methods for each type of data are included in addition to the analysis of the data sets. This chapter ends with a summary to lead to the results described in Chapter 4.

Rationale for Using Mixed-Methods

An exploratory sequential mixed-methods study was used for this research. A mixed-methods approach to research provides the opportunity for researchers to design a single study which answers questions regarding a phenomenon from the point of view of participants in addition to investigating any relationships between measurable quantitative variables (Mitchell, 2018). Using a mixed-methods approach combined the strength of both types of research to provide a more comprehensive understanding of the perceptions of low-income, high achieving students with regard to the current mentoring program and feelings of preparedness for post-secondary pathways. This design allowed qualitative and quantitative data to complement one another rather than compete against one another (Fetters, Curry, & Creswell, 2013). The interactions and relationships between students, teachers, and administrators within schools and classrooms are cultural (Kozleski, 2017). By beginning the research with a qualitative inquiry, the intervention implemented in the study was better defined and focused on the specific student needs identified in the interviews, as were the quantitative instruments used to determine any measurable changes.

Qualitative Components

Qualitative research methods were used in this study to collect information about those interactions and relationships within the school from the students' perspectives. A pilot test for focus group interviews was conducted to increase the reliability and validity of data collection and analysis. The pilot test was also used to inform and create the questionnaire addressing perceptions of preparedness for post-secondary pathways. Focus group interviews were used to compare and contrast the perceptions of low-income, high achieving students with respect to the current mentoring program at the school. The responses were analyzed and used to guide the creation and implementation of a curriculum to address student identified needs from the interviews.

Quantitative Components

A survey was used and administered to students before and after the implementation of the curriculum to collect quantitative data. The first part of the survey was comprised of demographic questions in order to determine any measurable changes in students' post-secondary plans. These responses also allowed a comparison of post-secondary plans based on gender. The second part of the survey used a Likert scale from 1 to 5 in order to compute and compare the mean level of perceived preparedness of students before and after the curriculum was implemented.

Qualitative Research Questions

The following three research questions were used to address the qualitative research in the study:

1. What benefits do low-income, high achieving students perceive themselves to gain from the current mentoring program?

2. What issues do low-income, high achieving students perceive themselves prepared to address with regard to their post-secondary path?

3. In what ways do low-income, high achieving students perceive the mentoring program could help prepare them for their post-secondary path?

Quantitative Research Questions

The following three research questions were used to address the quantitative research in the study:

1. Is there a significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options?

Null Hypothesis: There is no significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options.

2. Is there a significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options?

Null Hypothesis: There is no significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options.

3. Is there a significant difference in the mean level of college preparedness for low-income, high achieving students before and after exposure to information about post-secondary options?

    Null Hypothesis: There is no significant difference in the mean level of college preparedness for low-income, high achieving students before and after exposure to information about post-secondary options?

Population

The population for this study came from a high school in rural East Tennessee. The high school serves a student population of 429 grades 9-12. The student population is 95% white, 3% African American, and the remaining 2% Hispanic or Asian. A low-income, high achieving student is a member of a family who is at or below the current poverty level and has a cumulative GPA of 3.75 or higher.

Sample

To obtain the sample, the population was separated by grade level and then students were listed by class rank based on their current GPA. Total class size for each individual class ranged from 98 to 110. From these class lists, all students who met the definition of low-income, high achieving students were isolated to ensure all participants met the sample criteria from the class lists. A stratified random sample of 40 low-income, high achieving students was selected. A stratified sample was needed to include members from each segment of the population (Larson & Farber, 2012). A stratified sample was used to ensure low-income, high achieving students from each grade level, 9–12, were included in the sample.

Ten low-income, high achieving students from each grade level were randomly selected to complete the survey. A random integer generator was used to collect the random sample of

students from each class list until a sample size of 10 from each grade had been selected. By sampling 10 students from each grade, an overall sample size of 40 was selected. From each section of the stratified sample, three subjects from each grade level were randomly selected to participate in the focus group interviews. A random integer generator was used to collect the random sample of students until a sample size of three from each grade had been selected.

Instrumentation

Qualitative Instrumentation

Qualitative data were collected in the form of focus group interviews. Focus group interviews, a qualitative methodology, were used to gain insight from the low-income, high achieving mentees about the current school-based mentoring program at a high school in rural East Tennessee, their perceived needs from the program, and for what they currently felt prepared in regard to their post-secondary path. A focus group interview is an interview of a small group of people who have knowledge of the subject being discussed. The qualitative data is collected and facilitated in a group setting (Merriam & Tisdell, 2016). Focus group interviews were semi-structured with a guide for the discussion while allowing each focus group the freedom to expand the discussion if needed. The focus group interview questions were designed to aid in the development of a curriculum for the mentoring program to address the needs of low-income, high achieving students identified in the interviews. Focus groups met based on class level, seniors, juniors, sophomores, and freshmen, over the course of four weeks to ensure triangulation of the qualitative data. The interview questions which were asked in the focus group interviews were separated into groups which directly related to the main research questions of this study (see Appendix E). Focus group interviews were held in an empty

classroom and facilitated by the researcher. The qualitative data were analyzed using Creswell's six generic steps approach to analyzing qualitative data (Creswell, 2009).

Quantitative Instrumentation

A Student Perception Survey was created in Google Forms to collect the quantitative data (see Appendix F). Students reported to the initial mentor meeting of the school year in August, during which time the survey was administered to them through their school email address. The form collected demographic data from the sample for grade level, gender, GPA and current post-secondary plans. In addition to the demographic data, the sample was provided with 10 statements to evaluate how prepared they perceived themselves to be with respect to college-going behaviors. These surveys were used to provide additional information about student perceptions and needs with respect to the current mentoring program. The students ranked the application of the statement to their self-perception using a 5-point Likert scale (1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree). The statements were written so that the higher the number of the response to each question, the more prepared students perceived themselves to be for post-secondary pathways. The quantitative data from the survey were transferred to a Microsoft Excel file, so it could be easily copied and pasted into the statistical program. SPSS statistical software was used to test hypotheses.

Pilot test. Pilot tests are scaled down versions of the planned study. They are conducted using a similar sample from the population whose members cannot be included in the actual study. Pilot tests allow researchers to collect preliminary data, clarify questioning, practice data analysis techniques, and enhance their skills prior to the actual study (Doody & Doody, 2015). A pilot test was conducted in March 2019, to improve instrumentation validity and reliability. The pilot test allowed the researcher to develop and enhance interview skills, assess the interview

questions and make necessary adjustments, practice scoring data, and enhance the credibility of the study.

The same sampling procedure was used to obtain the pilot sample. However, the sample was drawn from low-income, high achieving seniors who would not be in high school during the study the following year. Ten low-income, high achieving students from the 2017 senior class were randomly selected using a random integer generator. From this sample of ten students, three students were randomly selected to participate in the pilot test interviews. Interviews were conducted in the same empty classroom as the actual study. The interviews were audiotaped with the same digital recorder and lasted approximately 45 minutes.

Once the interviews were over, participants were asked to fill out a form to provide feedback to the researcher about questioning and topics to be addressed (see Appendix H). The interviews and feedback were used to refine and clarify the interview questions. The data were analyzed using Creswell's six generic steps approach to analyzing qualitative data (Creswell, 2009) to allow the researcher to practice organizing and coding the data into themes, as well as interpret the results of the interviews. The survey statements for the quantitative data were also created using feedback from the pilot test. The survey statements were administered during the pilot test to ensure clarity and reliability.

Data Collection and Procedures

Before the study was conducted, a proposal was sent to the Milligan College IRB for approval. Consent to conduct research was acquired from the school system's superintendent (see Appendix A) and the principal of the high school (see Appendix B). Informed consent was acquired from parents (see Appendix C) and students (see Appendix D) before anyone was allowed to participate in the study. Two copies were provided to parents and students, one to be

signed and returned and another to be kept as a copy for their records. Once informed consent

was received, parents and students were continually provided with information pertaining to

dates, location, and time of focus group interviews, surveys, and individual interviews. A

reminder was sent to participants one week prior to conducting each session.

Participants experienced minimal risk during this study such as minor discomfort from

being questioned by an adult and slight anxiety when asked to expand on negative aspects of the

current mentoring programs. The school counselors were informed of possible reaction so

students could be referred to their counselor for additional support if needed. In the event

students might feel some apprehension, they were reassured of the types of questions to be

presented and reminded they could refuse to participate at any time.

A stratified random sample of 40 low-income, high achieving students was selected for

the study, ten from each grade level. There were three students randomly selected from each

group of ten to participate in the focus group interviews. The qualitative data were collected in

the form of focus group interviews in April 2018. Students had participated in the current

mentoring program for at least 8 months. Focus groups met based on class level, seniors, juniors,

sophomores, and freshmen, over the course of 4 weeks. Interviews were audiotaped during each

session using a digital audio-recorder. Interviews lasted approximately 30 to 40 minutes.

The focus group interviews were conducted in an empty classroom. Students

participating in the study were asked interview questions related to the research questions of this

study. Questions asked during the interviews were related to the perceptions and needs of low-

income, high achieving students with respect to the current mentoring program at a high school

in rural East Tennessee. The qualitative data were scored using Creswell's six generic steps to

analyzing qualitative data (Creswell, 2009). Information from the focus group interviews was

used to develop a curriculum (see Appendix G) to address the needs and concerns of the students with respect to post-secondary paths. The curriculum was implemented through the mentoring program the following year for at least 6 months.

The curriculum began in August 2018. Students were assigned alphabetically by last name to mentors by grade level. Training and materials for the curriculum to be covered by the mentors was provided one week prior to the mentoring sessions. Mentors were provided with a presentation of the curriculum outline. Mentors attended a faculty meeting at least two days prior to scheduled mentoring sessions. During these meetings, the mentors viewed the presentation in the role of the mentee. This was done to provide the opportunity for mentors to experience the curriculum as a student to allow them to ask questions and get clarification on the curriculum to be covered. One mentoring session was conducted each month for six months.

In August 2018, prior to the implementation of the curriculum, a quantitative survey was administered to collect demographics, post-secondary plans, and student perceptions of college preparedness. The quantitative survey was administered again in March 2019 after students had at least six months of the new mentoring curriculum to determine any changes in post-secondary plans and perceptions of college preparedness. Quantitative data were collected in a Google Form. In August 2018, students reported to their mentor for the initial meeting of the school year. The survey was administered during this initial meeting to collect pre-curriculum data. The same survey was administered again in March 2019 after six months of the new curriculum during a scheduled mentor meeting to collect post-curriculum data. The quantitative data were collected and organized into a Microsoft Excel Spreadsheet

All interviews were recorded using a digital audio recorder. Copies of all important information were kept in a file. There was a digital copy as well as a hard copy of all forms,

transcriptions, field notes, surveys and procedures followed during the research process. Both types of copies were kept in safe storage to protect the confidentiality and the integrity of the research project in a locked cabinet to which only the researcher had access.

Although the researcher participated in the mentoring program, it was not in the role of directly implementing the curriculum to the sample in the study. The researcher did not implement the curriculum to the sample to avoid any bias or researcher effects on a class. The researcher provided the mentoring program administrators with the qualitative results from the focus group interviews and aided in the curriculum outline development. The researcher also assisted in conducting training sessions for mentors on each lesson of the curriculum.

Data Analysis

Qualitative Strand

After the qualitative data were collected from the focus group interviews, a multiple step qualitative data analysis using Creswell's six generic steps approach to analyzing qualitative data was used (Creswell, 2009). The following steps were used to analyze the data:

1. Organized and prepared the data for analysis: the researcher transcribed the audio into a Microsoft Word Document to prepare the data for further analysis.

2. Read through all of the data and developed a general understanding of the information and its meaning: individual student responses to each question were recorded on colored notecards to aid in sorting responses into categories. A different colored notecard was used for each interview question.

3. Detailed analysis with a coding process: student responses were organized into categories. Similar responses were grouped together to aid the researcher in developing themes.

4. Coded responses to generate theme: each category was analyzed and grouped with other categories to develop general themes for response questions.

5. Represented themes in a qualitative narrative: Tables were created to display student responses for each theme. Keywords and phrases directly from student responses were used to ensure understanding of response themes.

6. Interpreted the meaning of the data: the researcher analyzed the data to determine the perceived needs of students in order to implement changes to the current mentoring program and create a curriculum.

These steps were taken to improve the validity and reliability of the analysis of the qualitative data (Creswell, 2009). By following these steps, the researcher was able to organize the data, develop a curriculum, and present the findings in a summary and discussion. Based on the data analysis, the researcher was able to develop conclusions and recommendations for future research on this topic.

Quantitative Strand

Data from the pre- and post-curriculum surveys were collected and entered into a Microsoft Excel spreadsheet for organization. The researcher entered the data into SPSS for statistical analysis. For quantitative question #1, a paired t-test was used to test for a significant difference in the number of students planning to enroll in a four-year college or university before and after the new curriculum. For quantitative question #2, a t-test for independent samples was used to test for a significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options. For quantitative question #3, a paired t-test was used to test for a significant difference in the mean level of

college preparedness for low-income, high achieving students before and after exposure to information about post-secondary options

Summary

The exploratory sequential mixed-methods design used for this research combined the strength of both qualitative and quantitative research to provide a more comprehensive understanding of the data (Fetters, Curry, & Creswell, 2013). By collecting the qualitative data through focus group interviews, the researcher had access to the individual experiences and perceptions of students in the sample with respect to the current mentoring program. Through analysis of the qualitative data, a curriculum was developed and implemented to address student needs identified in the interviews. Student surveys were administered before and after the curriculum was used in the mentoring program to determine if there were any significant differences in the number of low-income, high achieving students planning to attend a four-year university directly out of high school. Any significant gender difference with respect to post-secondary plans was also investigated. Finally, a comparison of the perceived level of preparedness for college before and after the curriculum implementation was completed to determine any significant changes.

CHAPTER 4

Data Analysis and Findings

Introduction

The purpose of this sequential exploratory mixed-methods study was to explore the perceptions of low-income, high achieving students participating in an established mentoring program in order to develop a curriculum to address their perceived needs with regard to a post-secondary path. In addition to addressing students' perceived needs, their perceptions of their own level of preparedness for post-secondary pathways was assessed, as well as any effects the mentoring curriculum may have had on improving these self-perceptions. The population studied was low-income, high achieving students participating in a mentoring program at a high school in rural East Tennessee. A low-income, high achieving student is a member of a family who is at or below the current poverty level and has a cumulative GPA of 3.75 or higher.

Qualitative data assessing student perceptions of the current mentoring program and needs were collected in the form of focus group interviews in the Spring of 2018. The sample consisted of 12 students from a stratified random sample of 40 low-income, high achieving students. The interviews lasted approximately 45 minutes. Students participating in the interviews were asked questions related to the research questions of this study. The following research questions guided the interviews:

1. What benefits do low-income, high achieving students perceive themselves to gain from the current mentoring program?

2. What issues do low-income, high achieving students perceive themselves prepared to address with regard to their post-secondary path?

3. In what ways do low-income, high achieving students perceive the mentoring program could help prepare them for their post-secondary path?

Prior to administering the actual interviews, a pilot test was conducted to ensure the reliability and validity of the interview questions. Research questions were adjusted based on the pilot test to ensure the questions were addressing the target information in the interviews. The researcher used the data from the pilot test to practice sorting, coding, and identifying themes.

A curriculum was developed and implemented in the mentoring program based on the needs identified in the interviews. Quantitative data were collected in the form of a survey to address the following research questions:

4. Is there a significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options?

5. Is there a significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options?

6. Is there a significant difference in the mean level of college preparedness for low-income, high achieving students before and after exposure to information about post-secondary options?

Surveys were distributed to the stratified random sample of 40 low-income, high achieving students via Google Forms before and after the implementation of the curriculum. The response rate was 100%.

In this chapter, population and sample demographics are identified and described for each part of the study. Qualitative data are presented in the form of tables that have themes listed based on the total number of responses. Keywords and phrases from student responses are included. An asterisk is used to identify any keywords or phrases that were repeated by students in the interviews. Quantitative data are presented in the form of tables to identify test statistics and levels of significance.

Demographic Data

The population studied was low-income, high achieving students participating in a mentoring program at a high school in rural East Tennessee. A low-income, high achieving student is a member of a family who is at or below the current poverty level and has a cumulative GPA of 3.75 or higher. A stratified random sample of 40 low-income, high achieving students was selected from the population. Ten low-income, high achieving students from each grade level were randomly selected to complete the survey. From this sample, three subjects from each grade level were randomly selected to participate in the focus group interviews.

The random sample of ten freshmen consisted of 4 males and 6 females ages 14 and 15. The random sample of ten sophomores consisted of 5 males and 5 females age 15. The random sample of ten juniors consisted of 5 males and 5 females ages 16 and 17. The random sample of ten seniors consisted of 5 males and 5 females ages 16 through 18. All 40 of these participants were administered the Student Perception Survey. Interview samples were drawn randomly from each of the four strata. Freshman interviewees consisted of 1 male and 2 females age 14. Sophomore interviewees consisted of 2 males and a 1 female ages 15. Junior interviewees consisted of 1 male and 2 females ages 16 and 17. Senior interviewees consisted of 2 males and a female age 18.

Qualitative Strand Findings

Research Question 1 Findings. Research Question 1 asked: What benefits do low-income, high achieving students perceive themselves to gain from the current mentoring program? In order to address this research question, the following three interview questions were asked:

a.   What are some of the benefits you have received from the current mentoring program?

b.   What information did you not receive that you feel should be addressed in the current mentoring program?

c.   Did choosing your own mentor affect your participation in the current mentoring program?

Responses to Interview Question 1a. What are some of the benefits you have received from the current mentoring program? Student responses are presented in Table 1. There was a total of nine students' responses to this interview question. Three themes emerged from the students' responses: notifications, career options, and resources. The themes of notifications and career options had the most responses (seven) and requirements had the fewest responses (three).

Table 1. *Student Responses to Interview Question 1a*

Themes	Number of Responses	Key Words and Phrases
Notifications	7	• Reminders for deadlines were important* • Reminders for upcoming events* • TN Promise requirements • ACT requirements
Careers	7	• Exploring different career paths* • Looking at different college requirements for jobs • Exposure to career choices* • Looking at different salaries for careers
Resources	3	• Advice about college* • Advice about future registration

Note. *Indicates a response that was given by multiple participants

Responses to Interview Question 1b. What information did you not receive that you feel should be addressed in the current mentoring program? Student responses are presented in Table 2. There was a total of nine students' responses to this interview question. Three themes emerged from the students' responses: practical skills, finances, and applications. The theme of practical skills had the most responses (eight). The theme of applications had the fewest (four).

Table 2. *Student Responses to Interview Question 1b*

Themes	Number of Responses	Key Words and Phrases
Finances	8	• Financing a car* • We know nothing about taxes* • We don't understand the FAFSA process* • General personal finances*
Practical Skills	5	• Courses for daily life skills* • We need Drivers' Education*
Applications	4	• Creating a resume • Filling out applications to college* • Filling out job applications and interviews*

Note. *Indicates a response that was given by multiple participants

Responses to Interview Question 1c. Did choosing your own mentor affect your participation in the current mentoring program? Student responses are presented in Table 3. There was a total of nine students' responses to this interview question. Two themes emerged from the students' responses: comfort and trust. The theme of comfort had most responses (eight) and trust had the fewest responses (seven).

Table 3. *Student Responses to Interview Question 1c*

Themes	Number of Responses	Key Words and Phrases
Comfort	8	• Having a choice made comfortable* • I was free to ask questions • The atmosphere was relaxed* • I was more involved in the meetings*
Trust	5	• I trust teachers I know* • I feel some teachers know more about college*

Note. *Indicates a response that was given by multiple participants

Research Question 2 Findings. Research Question 2 asked: What issues do low-income, high achieving students perceive themselves prepared to address with regard to their post-secondary path? In order to address this research question, the following three interview questions were asked:

a. How prepared do you feel you are for college or other post-secondary options?

b. How did you choose where you will attend college?

c. Do you know how to compare programs of study and cost of attendance?

Responses to Interview Question 2a. How prepared do you feel you are for college or other post-secondary options? Student responses are presented in Table 4. There was a total of nine students' responses to this interview question. One theme emerged from the students' responses: academically prepared. The theme of academically prepared had nine responses.

Table 4. *Student Responses to Interview Question 2a*

Themes	Number of Responses	Key Words and Phrases
Academically prepared	9	• My honor's classes are rigorous* • I feel academically prepared and that's it • My teachers push me academically* • I am confident with my academic skills • I feel prepared for college classes*

Note. *Indicates a response that was given by multiple participants

Responses to Interview Question 2b. How did you choose where you will attend college? Student responses are presented in Table 5. There was a total of nine students' responses to this interview question. Three themes emerged from the students' responses: cost, location, and programs of study. The theme of cost had the most responses (six), and programs of study had the fewest number of responses (three).

Table 5. *Student Responses to Interview Question 2b*

Themes	Number of Responses	Key Words and Phrases
Cost	6	• Schools that accept TN Promise*
		• Estimated cost of attendance*
		• Estimated financial aid*
		• Out of pocket expenses
Location	4	• I can live at home*
		• I do not have the life skills I need to move away
		• I can live with friends*
Programs of Study	3	• Guest speakers in my classes advised me
		• I have a specific program I want to attend
		• Research in specific classes about programs

Note. *Indicates a response that was given by multiple participants

Responses to Interview Question 2c. Do you know how to compare programs of study and cost of attendance? Student responses are presented in Table 6. There was a total of nine students' responses to this interview question. Three themes emerged from the students' responses: no idea, specific classes, and research myself. The theme of no idea had the most responses (five), and research myself had the fewest number of responses (three).

Table 6. *Student Responses to Interview Question 2c*

Themes	Number of Responses	Key Words and Phrases
No Idea	5	• I do not know where to look*
		• I do not know what I want to study*
		• I have never been shown how to do this
Specific Classes	4	• Research is required for some classes*
		• My teacher requires a project on this*
		• Guest speakers guided us through researching
Research Myself	3	• Research in a class led me to research myself*
		• Researched online

Note. *Indicates a response that was given by multiple participants

Research Question 3 Findings. Research Question 3 asked: In what ways do low-income, high achieving students perceive the mentoring program could help prepare them for

their post-secondary path? In order to address this research question, the following three

interview questions were asked:

a. In what ways could the mentoring program be designed to better prepare students?

b. In what ways could the curriculum be designed to better prepare students?

c. In what ways could extra time during meetings be used to better prepare students?

Responses to Interview Question 3a. In what ways could the mentoring programs be

designed to better prepare students? Student responses are presented in Table 7. There was a total

of nine students' responses to this interview question. Three themes emerged from the students'

responses: grade level, frequency, and presentations. The themes of grade level and frequency

had the most responses (six), and presentations had the fewest number of responses (three).

Table 7. *Student Responses to Interview Question 3a*

Themes	Number of Responses	Key Words and Phrases
Grade Level	6	• Separate students by grade level* • Not all information applies to me * • Some students cause distractions • Grade-specific information
Frequency	6	• Meet more often* • Meet at least twice a month* • Once a month is not enough*
Presentations	3	• Presentations need to be more in depth • Make presentations more interactive*

Note. *Indicates a response that was given by multiple participants

Responses to Interview Question 3b. In what ways could the curriculum be designed to

better prepare students? Student responses are presented in Table 8. There was a total of nine

students' responses to this interview question. Three themes emerged from the students'

responses: more depth, specific professions, and college representatives. The themes of grade

level and frequency had the most responses (six), and presentations had the fewest number of

responses (two).

Table 8. *Student Responses to Interview Question 3b*

Themes	Number of Responses	Key Words and Phrases
More Depth	6	• The slides need more information*
		• The information is skimmed*
		• Deeper explanations need to be provided
Specific Professions	4	• More information about careers*
		• Options other than college*
		• Guest speakers guided us through researching
College Representatives	2	• Have people come in and talk about programs*

Note. *Indicates a response that was given by multiple participants

Responses to Interview Question 3c. In what ways could extra time during meetings be used to better prepare students? Student responses are presented in Table 9. There was a total of nine students' responses to this interview question. Three themes emerged from the students' responses: test preparation, life skills, and college admissions. The theme of test preparation had the most responses (five), and college admissions had the fewest number of responses (two).

Table 9. *Student Responses to Interview Question 3c*

Themes	Number of Responses	Key Words and Phrases
Test Preparation	5	• ACT practice*
		• Test-taking strategies*
		• Test score requirements for different colleges
		• ACT scores and cost of attendance
Life Skills	4	• Establishing credit*
		• Creating a budget*
		• Balancing a checkbook*
College Admissions	2	• Look at college admission requirements
		• Look at different degree paths

Note. *Indicates a response that was given by multiple participants

The themes from the qualitative data were used to develop the curriculum which was implemented in the mentoring program. The Student Perception Survey was administered before and after the students were exposed to the curriculum. The responses from the Student

Perception Survey were used to compute the quantitative data to determine any significant changes in college-going behavior and perceived level of college preparedness.

Quantitative Strand Findings

Research Question 1. Is there a significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options?

Research Hypothesis: There is a significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options.

Null Hypothesis: There is no significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options.

A paired samples t-test was conducted to determine if there was a significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options. The results revealed a significant difference ($t(39) = -3.139$, $p = 0.003$, ES = 0.705) between students planning to attend a four-year college or university before exposure to information about post-secondary options ($M = 0.5250$, $sd = 0.5057$) and students planning to attend a four-year college or university after exposure to information about post-secondary options ($M = 0.8000$, $sd = 0.4051$). The effect size was calculated to determine the size of the difference. The results of Cohen's d for repeated measures indicated an effect size of 0.705. This indicates a large difference between the means. Therefore, the null hypothesis was rejected. The results of the paired samples t-test are displayed in Table 10.

Table 10. *Paired Samples t-Test Comparing Pre- and Post -Curriculum College-Going Behavior*

Test	n	Mean	SD	df	t	2-tailed sig	ES
Pre-Curriculum	40	0.5250	0.5057	39	-3.139	0.003*	0.705
Post-Curriculum	40	0.8000	0.4051				

Note. *Indicates significance at p = 0.05

Research Question 2. Is there a significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options?

Research Hypothesis: There is a significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options.

Null Hypothesis: There is no significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options.

An independent samples t-test was calculated to compare the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options. Levine's Test for Equality of Variances showed equal variances are not assumed (p = 0.001). There was a significant difference between the mean number of male and female students planning to attend a four-year college or university (t(29) = 2.382, p = 0.024, ES = 0.731); therefore, the null hypothesis was rejected. The mean number of males planning to attend a four-year college or university (*M* = 0.9474, *sd* = 0.2294) was significantly higher than the mean number of females planning to attend a four-year college or university (*M* = 0.6667, *sd* = 0.4831). The effect size

was calculated using Cohen's d for independent samples t-test. The results indicated a large

effect size of d = 0.731. Results are displayed in Table 11.

Table 11. *Independent Samples t-Test Comparing Males and Females on College-Going*

Behavior

Gender	n	Mean	SD	df	t	2-tailed sig	ES
Male	19	0.9474	0.2294	29	2.382	0.024*	0.731
Female	21	0.6667	0.4831				

Note. *Indicates significance at p = 0.05

Research Question 3. Is there a significant difference in the mean level of perceived

college preparedness for low-income, high achieving students before and after exposure to

information about post-secondary options?

Research Hypothesis: There is a significant difference in the mean level of perceived

college preparedness for low-income, high achieving students before and after exposure to

information about post-secondary options.

Null Hypothesis: There is no significant difference in the mean level of perceived college

preparedness for low-income, high achieving students before and after exposure to information

about post-secondary options.

A paired samples t-test was conducted to determine if there was a significant difference

between the mean level of perceived college preparedness for low-income, high achieving

students before and after exposure to information about post-secondary options. The results

revealed a significant difference (t(39) = -4.343, p = 0.001, ES = 0.988) between students' mean

level of perceived college preparedness before exposure to information about post-secondary

options (*M* = 28.3750 *sd* = 5.1822) and after exposure to information about post-secondary

options (*M* = 31.3250, *sd* = 4.1410). The effect size was calculated to determine the size of the

difference. The results of the Cohen's d for repeated measures indicated an effect size of 0.988

This indicates a large difference between the means. Therefore, the null hypothesis was rejected.

The results of the paired samples t-test are displayed in Table 12.

Table 12. *Paired Samples t-Test Comparing Pre- and Post-Curriculum Perceived College*

Preparedness

Test	n	Mean	SD	df	t	2-tailed sig	ES
Pre-Curriculum	40	28.3750	5.1822	39	-4.343	0.001*	0.988
Post-Curriculum	40	31.3250	4.1410				

Note. *Indicates significance at p = 0.05

CHAPTER 5

Summary, Conclusions, Discussion, and Recommendations

Purpose of the Study

The purpose of this sequential exploratory mixed-methods study was to explore the perceptions of low-income, high achieving students participating in an established mentoring program at a high school in order to develop a curriculum to address their perceived needs with regard to a post-secondary path. By allowing students to identify their own needs with respect to post-secondary paths, a curriculum was developed specifically to focus on meeting those needs and helping students become better prepared for choices after high school. The mentoring program at the high school was used to implement the curriculum and meet the needs identified by low-income, high achieving students to provide information, support, and resources so those students could make educated decisions about their post-secondary paths. The following research questions guided the study:

4. What benefits do low-income, high achieving students perceive themselves to gain from the current mentoring program?

5. What issues do low-income, high achieving students perceive themselves unprepared to address with regard to their post-secondary path?

6. In what ways do low-income, high achieving students perceive the mentoring program could help prepare them for their post-secondary path?

7. Is there a significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after exposure to information about post-secondary options?

8. Is there a significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options?

9. Is there a significance in the mean level of perceived preparedness for post-secondary pathways among low-income, high achieving students before and after exposure to information about post-secondary options?

Focus group interviews, were used to gain insight from the low-income, high achieving mentees' perceptions about the current school-based mentoring program. From these data, a curriculum was developed and implemented in the mentoring program. Pre- and post-curriculum assessments of college-going behavior and perceived level of college preparedness were conducted to determine any significant changes among low-income, high achieving students in the mentoring program.

Summary of Findings

Qualitative Strand Findings

Analysis of the qualitative data revealed low-income, high achieving students value trust, communication, and investment from their mentors. Through strong relationships with their mentors, these students developed comfort levels conducive to open discussions about important life choices. The interview data also revealed that although these students felt academically prepared to handle college coursework, they were extremely apprehensive about the non-academic demands they would be facing such as programs of study, finances, and housing. Not only did students feel unprepared to handle these issues, but they were also unsure about where

to find resources to help them. These findings were used to adjust the mentoring program and design a new curriculum to better meet student-identified needs.

Quantitative Strand Findings

Analysis of the quantitative data revealed two significant changes before and after students were exposed to the new curriculum in the mentoring programs. The mean number of students reported they were planning to go straight to a four-year college or university significantly increased. The mean level of perceived college preparedness also significantly increased after the students were exposed to the new curriculum. The quantitative data analysis also revealed a significant difference in the mean number of males and females planning to attend a four-year college or university directly out of high school. The mean number of males was significantly higher than the mean number of females with respect to this college-going behavior.

Discussion of Findings

Qualitative Strand Findings

Research Question 1. Three interview questions were used to determine what benefits and needs low-income, high achieving students perceive about the current mentoring program. An analysis of the data revealed three main benefit themes and two main need themes from the presentations of the current mentoring program. The three main benefit themes identified by students were notifications about important dates and upcoming events, information about career paths, and developing trust with their mentors. The two main need themes revealed were finances and practical skills.

The first benefit theme identified by students was notifications. Students stated that "reminders for deadlines were important" and being reminded of "Tennessee Promise

requirements kept them on track." Students appreciated the opportunity to ask "advice about college" and "future registration options" to help align their high school coursework with their post-secondary goals. This is consistent with previous research indicating these students often lack the resources outside of school which provide needed information to ensure college success (Hoxby & Turner, 2105). Low-income, high achieving students need to be provided with access to opportunities which provide guidance for navigating post-secondary pathways.

The students also identified presentations on career options as a benefit theme of the program. The presentations focused on different four-year degree careers, as well as two-year degree or certification careers. By providing research about the training required, current salaries, and job demand of all types of careers, the presentations researched students with diverse academic backgrounds and goals. Students said "exposure to career choices" and "looking at different salaries for careers" helped them make informed decisions. According to Hein et al. (2013), high schools are more conscientious about exposing students to specific career pathways. It is becoming more common for high schools to offer classes to students for college credits prior to graduating. These rigorous programs are designed to transition students into college coursework while still in the high school environment (Ndiaye & Wolfe, 2106). Early exposure to rigor and perseverance continues into post-secondary experiences.

The third benefit theme students identified from the mentoring program was developing comfort and trust with their mentors. Students appreciated the opportunity to choose their mentors because they were able to choose teachers who had already developed relationships with them. Students reported "the atmosphere was relaxed". Students felt that "some teachers know more about college" than other teachers they had for classes. Research supports the relationship between mentors and mentees as the foundation of program success. Teachers have the most

interaction with students during the school day and therefore more opportunities to make connections and develop relationships (Parlar, Turkoglu, & Cansoy, 2017). By increasing interaction through the mentoring program, these relationships become even stronger and more trusting. The longer the relationship is sustained between mentors and mentees, the greater the effect of the mentor on the mentee (Deutsch & Spencer, 2009). Establishing these relationships is vital to student success.

Student responses also revealed need themes of the current mentoring program. The most frequent need reported was information about finances. "We know nothing about taxes" and "we don't understand the FAFSA process" were among financial concerns. Along these lines, they reported applications for jobs, as well as post-secondary schools, were a concern for them. One student said "I have no idea how to even create a resume.' Others stated that simply "filling out an application" was a challenge. When faced with the unknown, a low-income, high achieving student's first instinct is to deal with these issues privately, avoid seeking help, and suffer in silence (Sloan, 2013).

The second main need theme was practical skills. Students felt basic life skills were inadequately addressed by the program. Students requested "courses for daily life skills." The push for improved student academic achievement from the federal government has caused schools to focus on standardized test preparation. As a result, there is very little time for schools to provide classes for life skills (Mehta, 2105; Snyder & Saultz, 2014). Students appreciated the information provided in the program and the connections they made with their mentors. However, students felt that basic life skills which cannot be covered in academic classes needed to be addressed by the program.

Lack of confidence with respect to application processes was also identified by students. They reported applications for jobs, as well as post-secondary schools, were a concern for them. One student said "I have no idea how to even create a resume.' Others stated that simply "filling out an application" was a challenge. When faced with the unknown, a low-income, high achieving student's first instinct is to deal with these issues privately, avoid seeking help, and suffer in silence (Sloan, 2013). As a result, the students identified ways in which the mentoring program could be improved to address those needs. Separating the mentoring groups, providing more in-depth presentations, and inviting college and career representatives to talk with students were all suggested improvements.

Research Question 2. Research Question 2 focused on the perceptions of low-income, high achieving students on college preparedness. Interview responses revealed one theme for preparedness: academically prepared. The responses also revealed three main themes of unpreparedness: cost of attendance, location of schools, and a combination based on researching programs of study. There were several areas the students felt were really needing to be addressed by the mentoring program to increase their preparedness for college.

With respect to the one theme of preparedness, students felt very well prepared for the academic demands of college courses. Several students stated they "feel academically prepared for college." One student stated, "I feel academically prepared and that is it." This is not surprising because improving student achievement has the driving force in today's schools. Students are required to take more courses in core subjects such as English, math, and science. Schools are pressured to graduate students who are career or college ready (Mehta, 2015). All of these factors have pushed schools and teachers to improve curriculum and instruction for all students. However, this does not leave much time in the classroom for non-tested learning.

However, the three main themes of unpreparedness revealed important concerns of these students. Two themes of unpreparedness focused on the cost of attendance and the location of schools. Cost and location were integrated because students considered "estimated financial aid" and being able to "live at home" as factors of affordable cost of attendance. According to research, these students do not understand the importance of the net cost of attendance, graduation rates, or best-fit institutions (Hoxby & Turner, 2015). Although these students have high GPA's and standardized test scores which ensure college success, these numbers are irrelevant if students choose to attend low performing colleges and universities (Roderick, Holsapple, Kelley-Temple, & Johnson, 2014). These outcomes stem from low-income, high achieving students following students in the same socioeconomic level in post-secondary paths Hoxby & Avery, 2013).

The third theme of unpreparedness was researching programs of study. When students were asked how they researched which institution they would attend, three themes were identified: no idea, specific classes they had in high school and research done on their own. Although some students reported they "didn't know what to study," others reported they "didn't know where to look" to find the necessary information. Other students were lucky enough to have specific classes which "required a project" investigating programs of study. In turn, these students also continued to research programs on their own outside of the school day. While students agreed the rigor and expectations of their classes had prepared them for college coursework, they felt uncertain of assessing cost, programs of study, and how to choose a college to attend. The students were overwhelmed by all of the factors that needed to be addressed when trying to decide where to pursue their post-secondary paths.

Research Question 3. In response to research question three which focused on ways in which low-income, high achieving students perceive the mentoring program could help prepare them for their post-secondary path two major program structure themes and four major content themes were revealed. The two structure themes, separation by grade level and frequency of meetings, addressed ways in which students felt the program could be improved to meet their needs. The four content themes were more depth in presentations, research on specific professions, test preparation skills, and life skills. This was identified by students as information which should be covered by the curriculum.

The first structural theme was separation by grade level. By separating the mentoring groups by grade level, students felt that information could be tailored to the specific grade level which concerned those students directly. The current program passed along information for each class together. Students reported "some information does not apply" to them and "some students cause distractions" because of the downtime when other class levels were being addressed. Students felt being separated by grade level would help mentors address specific student needs and allow more in-depth discussions of information pertaining to individual needs.

The other structural theme was the frequency of meetings. Students felt that meetings should occur "more often' and "once a month was not enough." Several students suggested meeting at least twice a month to improve communication and increase contact with their mentors. According to Deutsch and Spencer (2009), the longer the relationship is sustained with consistent meaningful contact, the greater the effect of the mentor on the mentee. In addition to conveying information more frequently, increasing the amount of contact with mentors, mentees have the opportunity to develop more trusting and meaningful relationships with them.

With respect to content themes, two themes were focused on the presentations: more depth and specific professions. Students felt the presentations needed to contain more depth and cover specific professions. Students requested information be added about program of study requirements, salary scales, and the job market for those professions. They wanted the presentations to be "more interactive" and the opportunities for "guest speakers to guide the research" into career fields. Research has identified factors that influence students' career choice. Extracurricular activities, classes, mentorships, and internships, and family support have all been shown to affect student choice (Kim, 2010; King, 2012). Schools must work to integrate the community and local colleges into their culture to provide students with these opportunities.

The other two content themes were test preparation skills and life skills. These were identified as areas to be covered during any extra time in the mentor meetings. Students wanted opportunities for ACT practice and study skills. They also wanted information and practice on "establishing credit, creating a budget, and balancing a checkbook." Students must develop dependability, perseverance, and a strong work ethic to ensure college success through degree completion (Leonard, 2013). However, when students lack the resources at home to support this development, it falls on the schools to provide sufficient levels of emotional support and understanding about the persistence needed to succeed at that level (Sparkman, Maulding, & Roberts, 2012).

Quantitative Strand Findings

Research Question 1. This research questions focused on the college-going behavior of students before and after the implementation of the curriculum for the mentoring program. There was a significant difference between the mean number of low-income, high achieving students planning to attend a four-year college or university directly out of high school before and after

exposure to information about post-secondary options. The results indicated a significant increase in the number of students planning to attend a four-year college directly out of high schools after those students had gone through the curriculum. It appeared the students internalized the information from the curriculum and changed their chosen post-secondary path. Often, low-income, high achieving students do not understand how to distinguish between schools to determine which ones would be a good fit to fulfill their desired path. They lack knowledge of the rigor and curricula offered or required to complete their specific degree requirements (Hoxby & Turner, 2015). When they do apply to a college, it is not typically a more-selective college which would actually be a better match for their ability (Hoxby & Turner, 2013). By providing the information students need and the opportunity to research post-secondary options, schools can help students make informed decisions about their futures.

Research Question 2. In response to Research Question 2, there was a significant difference between the mean number of male and female low-income, high achieving students planning to attend a four-year college or university directly out of high school after exposure to information about post-secondary options. The mean number of males planning to attend a four-year college or university was significantly higher than the mean number of females planning to attend a four-year college or university. This could be due to the lack of female role models used within the mentoring curriculum to introduce and discuss career paths. When programs of study, career paths, and guest speakers are used to discuss post-secondary options, it is extremely important to include successful members of both genders. It is particularly important to provide examples of females in non-traditional gender (Brown, Ernst, Clark, DeLuca, & Kelly, 2017). Although there has been a push to increase the number of females pursuing STEM careers,

exposure to female role models in different STEM-related career paths needs to improve within the mentoring program.

Research Question 3. In response to research question three which addressed the perceived level of college preparedness of students, there was a significant difference between students mean level of perceived college preparedness before exposure to information about post-secondary options and after exposure to information about post-secondary options. The curriculum was developed to include presentations on behaviors and practices that increase the likelihood of college and career success. Time management, coping with failure, and perseverance were all addressed by the curriculum, in addition to interview techniques, study skills, and resume guidelines. These results are consistent with the literature review which showed that classroom engagement, study habits, and grit in high school, attendance, classroom participation, and time management skills have all been shown to improve persistence at the post-secondary level (Gentry, 2012; Muenks, Wigfield, Yang, & O'Neal, 2017; Terrence, 2017). Being exposed to these topics in the mentoring program seems to have improved student perceptions on their preparedness for post-secondary pathways. School-based mentoring programs allow teachers to help students with issues beyond the classroom such as poverty, broken homes, future plans, and self-worth (Deutsch & Spencer, 2009). With this in mind, school-based mentoring programs can be so much more than academic tutoring. Mentoring programs can help students develop the confidence and courage to take paths not typical of their peers.

Limitations of the Study

One limitation of the study is that there were scheduling conflicts with special events which prevented some mentor-meetings from taking place. Due to these conflicts, there were

topics initially in the curriculum which had to be skipped. Another limitation which prevented some meetings were snow days in the spring. Since these school days were not made up, these meetings were omitted. In order to separate the students by grade level, the option to pick a mentor had to be eliminated. Although students had indicated that choosing a mentor improved their comfort level, logistically there was no way to accommodate both requests of grade level separation and mentor choice. Finally, there were issues with mentor absences on meeting days. While this cannot be avoided, substitute teachers were left to cover the curriculum without previous training or knowledge of the presentation for that day. Although students were still able to engage in the presentations, the mentor-mentee discussions were missing from the engagement in those meetings.

Conclusions

There were three general conclusions drawn from this study. The first conclusion is that students value trust and comfort with respect to their relationship with their mentors is consistent with previous research and literature. Student responses revealed the importance of trusting their mentors and being comfortable enough to have difficult conversations. In support of this conclusion, Deutsch and Spencer (2009) identifies trust as the foundation of mentor-mentee relationships and to develop this trust mentors must be supportive, open, non-judgmental, and understanding. In addition, Tolbert and Maxson (2015) add that mentors must be willing to invest their time and energy into their mentees.

Because many of these low-income, high achieving students were in the honor's track, there was a tendency for them to have specific teachers multiple times throughout their high school career. Through repetitive contact, these teachers and students develop trusting relationships naturally. However, actually providing the opportunity in a mentoring setting

promotes the development of these relationships and opens the lines of communication for students. Students voiced their appreciation for being allowed to choose their mentors. Unfortunately, this choice had to be withdrawn in the study in order to separate the students by grade level.

The second conclusion is that although low-income, high achieving students feel academically prepared for college coursework, when it comes to researching programs, the application process, and understanding finances these students feel overwhelmingly unprepared. According to Hoxby and Turner (2015), most of these students are first-generation college students. Their parents' lack of college experience put these students at a disadvantage compared to their peers. Often, low-income, high achieving students follow the college-going behaviors of students in the same socioeconomic level rather than those with the same academic ability. Hoxby and Avery (2013) point to a lack of information about financial and academic options as a possible explanation of this behavior pattern.

During the interviews, students reported that they did not know where or how to look for college admission information. They also reported that even though scholarship applications and deadlines were made available, they did not feel confident in filling out the paperwork. These students felt that because they were in the top of their class academically that adults just assumed they would figure out what needed to be done. The students voiced concern not only for themselves, but for their lower-performing peers as well. Since most of these students are going to be first-generation college students, lacking the resources and guidance at home forced them to seek help on their own. Through the mentoring program, these issues were addressed proactively by the faculty resulting in a higher level of perceived college preparedness.

The third conclusion is that providing students with information about post-secondary pathways can change their perspective on college preparedness and college-going behavior. Although high schools have developed specific course pathways for students to prepare for their chosen path (Hein, Smerdon, & Sambolt, 2013), more focused academic planning is still needed. Career-related programs, Advanced Placement classes, and dual enrollment classes have aided in academic preparedness, however partnering local universities and professionals currently working in specific careers provide students with more diverse opportunities (Kim, 2013; Ndiaye & Wolfe, 2016). King (2012) identified the importance of involving mentors, creating job shadowing opportunities, and providing career information to students.

Although providing the information to students resulted in great gains with respect to college-going behavior, the addition of specific time set aside during the school day for discussions and research allowed students to take ownership in their future. High schools would benefit by creating and requiring a specific class for students designed to address post-secondary options. While not all students plan to attend four-year universities, there are many overlapping needs regardless of the chosen post-secondary path. Students need the opportunity to investigate future pathways, financial options, and career options in order to make informed decisions about their futures.

Recommendations

This study was designed to explore the perceptions of low-income, high achieving students on their participation in a mentoring program at their high school with regard to preparing for post-secondary pathways. The data collected reflected the structure of the mentoring program, current perceived benefits of the program, and needs students perceived as

not being met. The findings of this study can be used to inform mentoring practices in high schools and information students need to feel prepared for post-secondary pathways.

Recommendations for Practice

 Based on the findings of this study, the following recommendations are made for practice:

1. The current program has a formal structure, clear expectations, training, commitment, and monitoring. Any mentoring program should implement these best practices to ensure the success of the program.

2. For any school-based mentoring program, separating students by class level will provide information specifically directed toward each group of students. School-based mentoring programs should provide class level presentations for deadlines, notifications, age-appropriate post-secondary information, and career guidance.

3. Mentoring programs should create curriculums based on mentee-identified needs, through surveys, interviews, and feedback to ensure all needs are being met.

4. Since more males than females plan to go directly to a four-year college or university, mentoring programs should provide more gender-specific role models of college and career based activities to increase exposure to females in diverse fields of study.

5. The themes of trust and comfort were identified as important aspects of mentoring relationships. Mentoring program should provide training for mentors that focuses on building relationships and trust with their mentees.

6. Mentoring programs should provide more opportunities for connections with local colleges and community businesses to network and interact with adults actively working in a variety of post-secondary paths to reach all levels of mentees.

Recommendations for Future Research

Based on the findings of this study, the following recommendations are made for future research:

1. The focus of future research should include students from all academic levels and prospective post-secondary pathways in focus group interviews to identify needs from the entire student population.

2. Future research should design similar studies which include parents and their perspectives on student needs.

3. In the future, a similar study should be designed which explores a variety of post-secondary pathways including certificate programs, technical schools, two-year degree programs, four-year programs, and graduate programs.

Based on the findings of the study, the researcher concludes that low-income, high achieving students benefit from relationships with mentors and exposure to information about post-secondary pathways. Although low-income, high achieving students are not considered at risk under the historical definition, the study followed the findings of previous research that at-risk students benefit from mentoring relationships (Deutsch & Spencer, 2009; Komosa-Hawkings, 2009; Tolbert & Maxson, 2015). The study also concurred with findings that exposing students to information about post-secondary paths improves their ability to make informed decisions with respect to finding schools of best fit. Regardless of background, experiences, academic achievement, or socioeconomic status, all students can benefit from programs that educate them about post-secondary choices.

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APPENDICES

APENDIX A

Superintendent Permission to Conduct Study

To:

FROM: Rachel Norris

DATE:

SUBJECT: Superintendent Permission to Conduct Study

I would like your permission to conduct a research study at _____ High School as part of my doctoral dissertation at Milligan College. I am researching students' perceptions of the current mentoring program at _____ High School.

The purpose of this study is to explore the perceptions of students who participate in the mentoring program at _____ High School as they relate to their needs regarding post-secondary preparedness in order to develop a curriculum to address those needs and increase the number of these mentees planning to enroll in a four-year college or university. Focus group interviews will be conducted by class. The goal of these interviews is to gain insight into the needs of students, in order to develop and implement a curriculum through the current mentoring program to address these needs.

The study will require four meetings, one for each class level, which will last approximately 30 to 40 minutes each. These meetings will be held in the high school library during the skinny period.

Students will be audiotaped during the interviews in order to track responses. The tapes will be locked in a cabinet that only the researcher has access to and will only be used for research purposes. The tapes will be destroyed once the study is complete. Student names will not be included in the findings of the study. If the study is published or presented to a professional audience, no personally identifying information will be released.

Student participation is strictly voluntary and students may withdraw from the study at any time. Students have the right to refuse to answer any questions asked during interview sessions. A copy of the informed consent forms and interview questions are attached for your information.

The possible benefits of this study for your school district are developing a mentoring program that meets the needs of all students, providing a curriculum to address post-secondary needs of students, and increasing the number of students planning to enroll in a four-year college or university straight out of high school.

Please sign and return one copy of this form to:

Rachel Norris

_____

_____

Your signature indicates that you have read and understood the information provided above, that you willing agree for me to invite students participating in the mentoring program at _____High School to participate in this study, and that you have received a copy of this form.

Respectfully,

Rachel Norris

I hereby consent to my school district's participation in the research described above.

_____
School District

_____
Superintendent Signature

_____
Superintendent Print

_____
Date

APENDIX B

Principal Permission to Conduct Study

To:

FROM: Rachel Norris

DATE:

SUBJECT: Principal Permission to Conduct Study

I would like your permission to conduct a research study at _____ High School as part of my doctoral dissertation at Milligan College. I am researching students' perceptions of the current mentoring program at _____ High School.

The purpose of this study is to explore the perceptions of students who participate in the mentoring program at _____ High School as they relate to their needs regarding post-secondary preparedness in order to develop a curriculum to address those needs and increase the number of these mentees planning to enroll in a four-year college or university. Focus group interviews will be conducted by class. The goal of these interviews is to gain insight into the needs of students, in order to develop and implement a curriculum through the current mentoring program to address these needs.

The study will require four meetings, one for each class level, which will last approximately 30 to 40 minutes each. These meetings will be held in the high school library during their skinny period.

Students will be audiotaped during the interviews in order to track responses. The tapes will be locked in a cabinet that only the researcher has access to and will only be used for research purposes. The tapes will be destroyed once the study is complete. Student names will not be included in the findings of the study. If the study is published or presented to a professional audience, no personally identifying information will be released.

Student participation is strictly voluntary and students may withdraw from the study at any time. Students have the right to refuse to answer any questions asked during interview sessions. A copy of the informed consent forms and interview questions are attached for your information.

The possible benefits of this study for your school are developing a mentoring program that meets the needs of all students, providing a curriculum to address post-secondary needs of students, and increasing the number of students planning to enroll in a four-year college or university straight out of high school.

Please sign and return one copy of this form to:

Rachel Norris

_____

_____

Your signature indicates that you have read and understood the information provided above, that you willing agree for me to invite students participating in the mentoring program at _____ High School to participate in this study, and that you have received a copy of this form.

Respectfully,

Rachel Norris

I hereby consent to my school district's participation in the research described above.

_____
School District

_____
Principal Signature

_____
Principal Print

_____
Date

APENDIX C

Parent Informed Consent Letter

Dear parents and/or Guardians,

Your child _____ has been invited to participate in the research student that is designed to understand his or her experience from participating in the mentoring program at _____ High School. This student will be conducted by Rachel Norris, a doctoral student at Milligan College, under the supervision of Dr. Patrick Kariuki.

This study will use focus group interviews, which means your child will be asked questions in a small group setting with no more than nine other members from his or her grade level. The questions are related to his or her perceptions of the current mentoring program at _____ High School. The focus group interviews will require one meeting with your child for approximately 30 to 45 minutes during his or her skinny period. The focus group will take place in the high school library. Your child will be audiotaped during the focus group interview to keep track of responses. The tapes will be stored in a locked cabinet that only the researcher was access to and will only be used for research purposes. The tapes will be destroyed once the study is complete.

This study will also use an individual survey, which means your child could be given a questionnaire to be completed by him or her. The questions are related to his or her needs and concerns about being prepared for a post-secondary path. If your child is chosen to participate in the survey, it will require another meeting with your child for approximately 20 to 30 minutes during his or her skinny period. The individual survey will take place in the high school library.

This study will also use an individual interview, which means your child could be asked questions in a one-on-one setting with the researcher. The questions are related to his or her answers in the pre-curriculum and post-curriculum surveys about post-secondary path decisions. If your child is chosen to participate in an individual interview, it will require one meeting with your child for approximately 20 to 30 minutes during his or her skinny period. The individual interview will take place in the high school library. Your child will be audiotaped during the interview to keep track of responses. The tapes will be stored in a locked cabinet that only the researcher was access to and will only be used for research purposes. The tapes will be destroyed once the study is complete.

Your child's name will not be included in the findings of the study. The findings of this study will be shared with the administration at _____ High School to help improve program effectiveness for all students at_____ High School. If the findings of this study are published or presented to a professional audience, no personally identifying information will be released.

The possible benefits from your child's participation is this study include insight into the positives and negatives of the current mentoring program and student needs with respect to post-secondary paths which are not currently being met.

It is possible that your child might experience minimal risks from participation in the study. These risks may include but are not limited to, fatigue or anxiety. If you child should experience any of these risks, the researcher will allow him or her to take a break or reassure your child of the types of questions he or she will be asked. Your child will also have the option to see a school counselor if he or she becomes upset.

It is important to understand that your child's participation in this study is completely voluntary and her or she may withdraw from the study at any time. You have the right to refuse your child's participation in the study, or withdraw you child from the study at any time. Your child also has the right to refuse to answer any questions asked during the focus group interview.

No personal identifying information from your child's participation in the study will be released to anyone without other permission, or as required by law. Information from all four focus group interviews will be presented together to protect your child's confidentiality. Under Tennessee law, an exception to this privilege of confidentiality includes but is not limited to the alleged or probably abuse of a child or if a person indicates he or she wishes to do serious harm to self.

Your child will receive no compensation for participating in this study.

If you have any questions regarding the study procedures, please contact Rachel Norris at rbnorris@my.milligan.edu or 423-354-1400. If you have further questions, you may also contact Dr. Patrick Kariuki at _____ and _____.

Please sign and return one copy of this form and keep the other copy for your records.

I understand to my satisfaction the information in the consent form regarding my child's participation in the research project. I have received a copy of this informed consent form, which I have read and undersigned. I hereby consent to my child's participation in the research described above.

The participant is a minor (age _____).

_____   _____
Parent/Guardian Signature   Date

Relationship to minor (Check):   ____Mother   ____Father   ____Legal Guardian

APENDIX D

Student Assent Letter

My name is Rachel Norris and I am a doctoral student at Milligan College. Your parent/guardian has given me permission for you to participate in a study I am conducting about your feelings on the current mentoring program at _____ High School.

The choice to participate is up to you. If you decided to participate in the study, I will ask you questions in a focus group of no more than nine other students in your grade about the current mentoring program at _____ High School. Your participation will take one meeting for about 45 minutes during your skinny period. We will conduct the interview in the high school library. To help me keep track of your answers, I will audiotape the entire interview.

You may also be asked to complete survey about your current plans for college enrollment Your participation will take one meeting for about 30 minutes during your skinny period. We will complete the survey in the high school library.

If you complete a survey, you may be asked to participate in an individual interview. You will be asked questions one-on-one related to your responses on the pre-curriculum and post-curriculum surveys. Your participation will take one meeting for about 30 minutes during your skinny period. We will conduct the interview in high school library. To help me keep track of your answers, I will audiotape the entire interview.

At the end of the study, I will share the results with the administration of _____ High School but your name will not be included. If the results of the study are published or presented to professional audiences, your name will not be included.

The expectation is that your participation in this study may help the mentoring program at _____ High School meet the needs of all students.

If you are interested, I would like to invite you to agree to participate in my study. I you to know that the choice to participate is completely voluntary. No one is going to force you to participate. Even if you start the study and decided you no longer want to participate, you are free to stop at any time.

If you get bored or tired at any time during our interview, please let me know and we can take a break. If you are bothered by any of the things we talk about, let me know so we can discuss what is bothering you. The only time I have will share information with your parents or the administration of _____ High School is if abuse or harm to yourself is involved.

If you decide to participate in this study, your participation is greatly appreciated. If you have any questions, you may contact me at rbnorris@my.milligan.edu or 423-354-1400.

Please sign and return one copy of this form and keep the other copy for your records.

_____   _____

Student Signature   Date

APPENDIX E

Focus Group Interview Questions

1. What benefits do low-income, high achieving students perceive themselves to gain from the current mentoring program?

    a. What do you like about having a mentor?

    b. What do you not like about having a mentor?

    c. Does choosing your own mentor make relationships easier to establish?

    d. How has the mentoring program helped with your understanding of financial aid such as scholarships, TN Promise, and cost of attendance?

2. What issues do low-income, high achieving students perceive themselves prepared to address with regard to their post-secondary path?

    a. What do you feel you are prepared to address with respect to your post-secondary path?

    b. What do you feel you are prepared to address with respect to college?

    c. How did you choose your post-secondary path?

    d. Do you feel teachers and administrators place more responsibility on you to inform yourselves about post-secondary options?

3. In what ways do low-income, high achieving students perceive the mentoring program could help prepare them for their post-secondary path?

    a. Would the mentoring program be more beneficial if you were separated by grade level?

    b. What information needs to be added to the current program with respect to college?

c. What information needs to be added to the current program with respect to adult life skills?

d. Are there any other ways the mentoring program could be changed to better suit student needs?

APPENDIX F

Student Perception Survey

Name

Faculty Advisor

Gender

Age

Current Grade

Have you taken or are taking at least 3 Honors classes?

Which college/university are you planning to attend upon graduation?

On a scale of 1 - 5 (1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree) answer the following questions.

1) I feel prepared for college academically based on my grade level.

2) I feel prepared for college with respect to application, financial aid, and scholarship processes based on my grade level.

3) I feel prepared to address other issues related to attending college such as housing, jobs, and transportation.

4) I know how to research scholarship opportunities.

5) I know how to research programs of study at colleges and universities.

6) I know how to compare the listed cost of attendance to the net cost of attendance at a college or university.

7) I know how to determine if a college or university is the best fit for me.

8) I would like more information on scholarship applications.

9) I would like more information on college admission procedures.

10) I would like more information on how to research colleges and universities.

APPENDIX G

Faculty Advisor Curriculum Outline

August Meeting 1: What is Faculty Advisory?

1. Who is your advisor?

2. When will you see your advisor?

3. Why do you have a faculty advisor?

4. Have you thought about what comes next after high school?

5. Student survey administered.

August Meeting 2: How GPA and ACT scores translate into money for college.

1. Academic incentives

2. Tennessee HOPE Scholarship

3. School-specific academic scholarships (ETSU, UT, and NESCC)

September Meeting 1: How to cope with failure

1. Group discussion guidelines and etiquette

2. Define failure.

3. Advisors share stories of failure.

4. Students volunteer stories of failure.

5. How to own failure.

6. How to cope with failure.

September Meeting 2: Grade Check meeting. Mentors meet with students one-on-one

discussing grades, concerns, individual needs, and progress. Students have access

to computers to search scholarships, college admissions information, and

programs of study.

October Meeting 1: National Bullying Prevention Month

      1. What is bullying and what is not?

      2. Three types of bullying: physical, verbal, relational.

      3. What is cyberbullying?

      4. How to report bullying.

October Meeting 2: Grade Check meeting. Mentors meet with students one-on-one

      discussing grades, concerns, individual needs, and progress. Students have access

      to computers to search scholarships, college admissions information, and

      programs of study.

November Meeting: How to make yourself marketable for college and careers while in high

      school.

      1. Athletics, clubs, community service.

      2. Job experiences, music/art, tutoring.

      3. How to speak resume and application language.

      4. How to ask for references.

      5. Mentors and students share personal experiences in these activities.

December Meeting: How to prepare for an interview.

      1. Before the interview: research the college or business, study your resume

         or application, what to wear, and what not to wear.

      2. At the interview: leave the phone in the car, make a great first impression,

         and shake hands.

3. During the interview: Show confidence, good posture, and maintain eye contact. Be sure to ask for clarification if you do not understand a question.

4. After the interview: Thank the interviewer, follow up with a phone call a few days later, and be sure to have an appropriate email or voicemail for messages.

5. Mentors and students share personal experiences with interviews.

January Meeting: Grade Check meeting. Mentors meet with students one-on-one discussing grades, concerns, individual needs, and progress. Students have access to computers to search scholarships, college admissions information, and programs of study.

February Meeting: Preparing to register for classes.

1. Schedule changes.

2. New classes.

3. Honor's classes available.

4. CTE tracks available.

5. Course request activity and discussion.

March Meeting 1: Time management.

1. Set goals and make to-do lists.

2. Utilize the weekend.

3. Do not make excuses.

4. Do not procrastinate.

5. Activity log.

6. Student survey administered.

March Meeting 2: Grade Check meeting. Mentors meet with students one-on-one

discussing grades, concerns, individual needs, and progress. Students have access

to computers to search scholarships, college admissions information, and

programs of study.

APPENDIX H

Pilot Test Feedback Form

1) Did the interviewer create an inviting and comfortable environment for the interview?

Please provide a brief explanation.

2) Did you feel you were free to leave the interview at any time? Please provide a brief

explanation.

3) Were you comfortable being interviewed in a small group? Please provide a brief

explanation.

4) Were the interview questions clear and easy to understand? Please provide a brief

explanation.

5) Did you feel the interviewer led you to answers or did you feel your answers were solely

of your own thoughts and feelings? Please provide a brief explanation.

6) Did you have ample time and opportunity to express yourself when answering an interview question? Please provide a brief explanation.

7) Were there concerns about the mentoring program you feel should be addressed that were not mentioned in the interview? Please provide a brief explanation.

8) Please provide any suggestions you may have to improve the interview environment.

9) Please provide any suggestions you may have to improve the interview questions.

10) Please provide any other concerns or suggestions you may have for the interview.