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A Case Study of the Efficacy of Middle College on Educational Advancement

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by

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Declaration of Originality

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

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Abstract

The purpose of the study was to examine the role of a middle college as a viable educational alternative to the traditional school environment and as one that supported student transition from high school into post-secondary education. Middle college is a unique transitional program in which students can participate in high school and college courses, typically on a college campus (Middle College National Consortium (MCNC), 2014a). Student participants usually experience more student support services, and practical, real-world education (Lieberman, 2004). The study consisted of a mixed-methods design, with five total research questions, and included participant data from the target years 2011-2012 and 2012-2013. The qualitative component included a focus group discussion with seven former student graduates of MMC. The quantitative research included a *t*-test analysis of four student factors: pre- and post-MMC intervention attendance, pre- and post-MMC intervention high school grade point averages, student participant dropout rate compared with state-wide data, and subsequent college enrollment at the target site institution. Despite the growth of transitional programs like middle college, limited research exists on the effectiveness of transitional programs (Adelman, 2006; Rodríguez, Hughes, & Belfield, 2012). It is imperative formal evaluations and research be done to document the benefits of these programs. In doing so, this study may be able to document the value of MMC being studied as well as guide the direction of future middle college programs.

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Chapter One: Introduction

Student interest in attending college reportedly is as high as 97% (Choy, 2001), yet the national average in high school dropout rate hovers around 20% (National Center for Education Statistics (NCES), 2014b). When 20% of students dropped out of high school, the remaining 80% of students graduated high school, but typically only 66% actually enroll in college in the semester following high school graduation (National Center for Education Statistics (NCES), 2014a). In addition, a great number of students who graduate high school and enroll in college, either do not continue in college for a subsequent semester or drop or flunk out during the first semester (NCES, 2014b).

The majority of students are interested in going to college, but a large percentage of these students are not successfully transitioning from high school to college (Choy, 2001; NCES, 2014a; NCES, 2014b). Attempts at identifying the barriers students encounter, which prevent students from transitioning to college, result in the development of programs to minimize these barriers and improve student success (Bridgeland, Balfanz, Moore, & Friant, 2010). Programs designed to remove barriers for students and provide additional support in order to promote a more successful educational progression are referred to as transition programs (Rodríguez, Hughes, & Belfield, 2012).

In the current chapter, issues that contribute to high dropout rates in high schools and lower-than-expected college enrollment rates will be discussed. This discussion includes an overview of the most likely barriers students encounter in their transition from high school to college, including obstacles faced which impede some students from enrolling in college in the first place, as well as setbacks which obstruct success for some students who enrolled in college. The ensuing section will include the development of

high school-to-college credit-based transition programs, herein referred to as transition programs. A theoretical framework for understanding the issues will be provided. The statement of the problem and the purpose for carrying out the current study, including a list of the research questions will be presented. In order to fully understand the breadth of the study, key terminology and limitations and assumptions relevant to the study will be addressed.

Background of the Study

Students encounter barriers in transitioning from high school to college (Rodríguez et al., 2012). The concept of transitioning, meaning to successfully move from one institution to another, as well as encompassing student preparedness both academically and emotionally (Bailey, Jaggars, & Jenkins, 2011). Knowledge about college requirements, experiences in accessing college, the ability to ultimately succeed during the first semester of enrollment, are also components of transitioning (Bailey et al., 2011). Identified barriers to college transitions, include lack of class rigor while in high school, which leads to unpreparedness and inaccurate student expectations for college (Barnett, 2010). With a lack of curriculum alignment between institutions and a few high school and college partnerships, high school students are not always prepared to enter college (Adelman, 2006). In addition, many students encounter limited funding or the knowledge of how to gain funding (Barnett, 2010). Thus, many students found themselves unable to transition successfully to college (Achieve, 2012; Barnett, 2010).

In response to the recognition of these barriers in transitioning from high school to college, a growing number of transition programs were developed (Bailey et al., 2011). Credit-based transition programs were designed for students to participate in college

coursework while still in high school, in order to promote student access to college and the creation of a foundation for student success (Bailey et al., 2011). Transition programs blend high school and college environments, provide opportunities for free or reduced rates on college credit, college experiences, exploration, and improve confidence in overall school abilities (Rodríguez et al., 2012). Transition programs are designed to cater to students who are less likely to enroll in post-secondary education and place more emphasis on skill development and career exploration in addition to traditional academics (Middle College National Consortium (MCNC), 2014a).

Credit-based transition programs account for a growing number of high school students in pursuit of college enrollment; mainly because students can pursue college while still in high school (Mead, 2009; Rodríguez et al., 2012). Transition programs are not only gaining popularity with students (Mead, 2009). Many states recognize the trend in increased student enrollment and have passed legislation for initiatives focused on smoothing the transition of students from high school to college (Mead, 2009). Furthermore, transition programs shift focus from serving academically gifted students to include students not typically present in the college environment (Barnett, 2010). Types of transition programs will be explained in the forthcoming literature review section.

The ultimate question is whether transition programs are addressing the aforementioned barriers and increasing the success rates of college enrollment after high school graduation. Limited research on transition programs has occurred, and therefore, little is known about the uniqueness of programs offered and the effectiveness of transition programs overall (Rodríguez et al., 2012). The current study will provide an

opportunity to explore one type of transition program, the middle college, as a viable high school to college transition program for student participants.

LaGuardia Community College Middle College, which opened its doors in 1974, was one of the first programs focused on supporting high school graduation and successful transitioning to college while also concentrating on supporting students typically underrepresented in college (Barnett, 2010; Lieberman, 2004; MCNC, 2014a). According to the MCNC (2014a), the middle college initiative focuses on eliminating barriers to student transition to college, creates additional opportunities for high school students, provides a bigger emphasis on student access and support, and overall blends the high school and college atmosphere.

Generally, middle college schools are secondary schools, located on college campuses across the nation (Lieberman, 2004). Middle colleges provide a rigorous academic curriculum within a supportive and nurturing environment to a student population that has been historically underserved and underrepresented in higher education (MCNC, 2014a). Middle colleges are small, with usually 100 or fewer students per grade level (Middle College National Consortium, (MCNC, 2014b). While attending a middle college, students have the opportunity to take college classes at no cost to themselves (MCNC, 2014b). Overall, middle colleges today maintain the original goals through educational, emotional, and financial support not found in traditional high school settings (Jennings, Locasio, Buller, & Sartain, 2007). In the middle college educational environment, students obtain practical experiences and are more likely to successfully transition from high school to college (Institute of Education Sciences, 2009; Lieberman, 2004).

The purpose of transitional programs is not solely for students to progress towards additional education. The experiences in transition programs impact other aspects of student success, including the likelihood to pursue more education, degree attainment, employment, and salary, the latter of which are not the focus of the study, but will be discussed in general as potential benefits for participants of transition programs (Barnett, 2010; Carnevale, Rose, & Cheah, 2011; Grusky, Bird, Rodriguez, & Wimer, 2013). Students who enroll in college while still in high school are more likely to succeed in later collegiate coursework (Barnett, 2010). Furthermore, college attainment has been found to positively correlate with post-secondary employment, increased lifetime earnings, and employment resiliency during economic downturns (Carnevale, Rose et al., 2011; Grusky et al., 2013). The impact of additional education on future factors of student success is important because occupations available in the future are expected to require additional post-secondary training or a post-secondary degree (Carnevale, Rose et al., 2011).

Theoretical Framework

Adelman (2006) postulated high school students are not successful in transitioning to college due to the lack of access to the college environment. Adelman (2006) further argued persistence from high school to college closely aligns with a student's academics, opportunities, support, choice, and commitment to their education. Essentially, a student who experiences a rigorous or engaging curriculum, in a supported environment, with some degree of freedom in their educational experience, and demonstrate behaviors consistent with commitment to education are more likely to succeed, than students who do not (Adelman, 2006). Adelman's (2006) theories are

supported by the educational theories of Vincent Tinto, Elizabeth Barnett, and Alexander Astin, and will be discussed further in Chapter Two.

Tinto (1975), a widely known educational theorist, focused primarily on the reasons students persisted in or departed from college. Tinto emphasized the importance of prior education, skills, and abilities. In later revisions of his theories, more emphasis was placed on the student's social and academic experiences within the college environment (Tinto, 1993). Tinto indicated commitment to college coursework and degree completion strongly correlated with positive social and academic experiences in college (Tinto, 1975, 1993).

Consistent with Tinto's earlier beliefs, Adelman (2006) found a student's high school education was the strongest predictor of post-secondary success. A student's skills and knowledge prior to college enrollment strongly correlates with college persistence (Adelman, 2006). Adelman further qualified the predictors of college success through inclusion of secondary perseverance as an outcome of the quality and rigor of the student's high school curriculum (Adelman, 2006; Adelman, Daniel, & Berkovits, 2003). Further evidence in support of Adelman's theories and transition programs was Barnett's (2010) finding that students who have the opportunity to participate in college classes while still in high school are more likely to succeed in later coursework.

Lastly, Astin, Astin, and Lindholm (2010) developed the input-environment-outcome (IEO) model as a description of a student's progress through high school, transition to college, and college persistence. Astin et al. (2010) found the impact of a student's choice to persist or depart from the college experience came from a combination of pre-college factors (Astin et al., 2010). The pre-college factors discussed

by Astin et al. (2010) align with Adelman and Tinto's concepts of the impact of a student's social and academic experiences; Astin further expanded on the ideas of Adelman and Tinto by including the importance of students' demographical information and family histories (Astin et al., 2010).

Educational theories, like those of Adelman, Tinto, Barnett, and Astin, provide support for transition programs, as these initiatives serve as a means to build a path between educational settings, to promote educational retention, and enhance post-secondary success for students (Barnett, 2010; Mead, 2009; Struhl & Vargas, 2012). As such, the educational perspectives as described by Adelman, Tinto, Barnett, and Austin lay the foundation for the goals of transition programs, including the sole middle college of interest in this study.

Statement of the Problem

Even though transition programs have occurred for many years, the research on transition programs continues to be limited as well as the research on the reasons students want to attend college, yet are unable to do so successfully (Rodríguez et al., 2012). Despite the growth of transitional programs like middle college, where students experience a blend of a strong high school and college curriculum, the underlying question remains whether students of these programs are successfully transitioning from one institution to the next (Adelman, 2006). Personal experience with one Midwest Middle College, the focus of the case study herein referred to as MMC, suggests this specific transition program is beneficial to most of the students enrolled. However, formal evaluations and research must be conducted to document the benefits of middle college programs overall. Research and evaluation of one particular middle college

program may assist in providing support for the program, along with a guide for the direction of future middle college programs (Karp, 2012).

Purpose of the Study

The purpose of the study was to examine the role of a middle college as a viable educational alternative to the traditional school environment and as one that supported student transition from high school into post-secondary education (Adelman, 2006; Barnett, 2010; Mead, 2009; Struhl & Vargas, 2012. Although part of the purpose was to describe the design of the middle college concept, the primary purpose included movement beyond generalities toward a more careful analysis of a specific middle college, MMC, by the evaluation of its impact on student participants and the actions taken by the program in order to promote student success in transitioning to college.

Research questions. The following research questions were used to guide the study:

1. In what ways does participation in MMC affect students' attitudes toward school and preparedness for post-secondary education or workforce entry, as reported by student participants?

2. What differences exist, if any, between the average daily attendances rates of students prior to attending MMC and the average daily attendance rates of those same students after attending MMC?

H_0 There is no significant difference between the average daily attendance rates of students prior to attending MMC and the average daily attendance rates of those same students after attending MMC.

H_1 A significant difference exists between the average daily attendances rates of students prior to attending MMC and the average daily attendance rates of those same students after attending MMC.

3. What differences exist, if any, between high school students' GPA prior to attending MMC and high school GPA of those same students after attending MMC?

H_0 There is no significant difference between high school students' GPA prior to attending MMC and high school GPA of those same students after attending MMC.

H_1 A significant difference exists between high school students' GPA prior to attending MMC and high school GPA of those same students after attending MMC.

4. What differences exist, if any, between MMC students' dropout rate and the average statewide high school dropout rate?

H_0 There is no significant difference between MMC students' dropout rate and the average statewide high school dropout rate.

H_1 A significant difference exists between MMC students' dropout rate and the average statewide high school dropout rate.

5. What difference exists, if any, between student graduates of MMC who continue their education at the target site community college and those who do not?

H_0 There is no significant difference between student graduates of MMC who continue their education at the target site community college and those who do not.

H_1 A significant difference exists between student graduates of MMC who continue their education at the target site community college and those who do not.

Definitions of Key Terms

For the purposes of the study, the following terms were defined:

Career readiness. Career readiness is defined as the ability to obtain a job, with enough earnings to support a family and opportunities for advancement (Missouri Learning Standards, 2014). Many of these types of careers require completion of some college, a training certificate, or degree attainment (Missouri Learning Standards, 2014).

College readiness. College readiness is defined as the summation of the skills, knowledge, and behaviors required to engage in college courses to completion (Washington State Board for Community and Technical Colleges, 2014).

Concurrent enrollment. Concurrent enrollment refers to the concept of students who enroll in college-credit classes while in high school, wherein the classes are taught by college-approved high school teachers (National Alliance of Concurrent Enrollment [NACE], 2014). Concurrent enrollment provides low-cost exposure to the college environment for students, while in a known high school environment (NACE, 2014). Concurrent enrollment has also been referred to as dual enrollment (NACE, 2014).

Credit-based transition programs. Credit-based transition programs are designed for students to participate in college coursework while still in high school, in

order to promote student access to college and the creation of a foundation for student success (Bailey et al., 2011).

Dual enrollment. Dual enrollment refers to the concept of students who earn college credit while in high school via a partnership between a school district and an institution of higher education (Cassidy, Keating, & Young, n.d.). Through the dual enrollment experience, students are also eligible to earn high school credit for the college-level course(s) (Cassidy, Keating, & Young, n.d.). Dual enrollment offerings are traditionally developed for advanced students, but this type of program has expanded in recent years to include a variety of students in academic and technical courses (Cassidy, Keating, & Young, n.d.).

Early college. Early college programs exist through a partnership between one or multiple high schools and a post-secondary institution; the early college school is often located on the partnering college campus (Barnett, 2010). Early colleges may begin as early as ninth grade and offer accelerated programs, sometimes with articulated credit, wherein some graduates earn a high school diploma and years of college credits or an associate's degree (Barnett, 2010).

Grade Point Average (GPA). The GPA refers to grade point average. Grade point averages are a method used by schools to determine students' progress or success in their courses and education (Coleman, 2011). The grade point average for each student is obtained by dividing the total number of points earned for each grade by the total number of credits attempted (Coleman, 2011).

Middle college. Middle college is a unique transitional program in which students participate in high school and college courses, frequently on a college campus

(Lieberman, 2004). Middle colleges are often smaller than early colleges, with limited enrollment and smaller student-to-staff ratios (MCNC, 2014a; MCNC, 2014b). Middle college programs are offered to student participants for two years or more, with more student support services, and an emphasis on practical, real-world educational experiences (Lieberman, 2004). For the purpose of this paper, "lower-case" middle college refers to the general practice of middle colleges overall, while "upper-case" Midwest Middle College, or MMC, denotes the sole target site middle college involved in the case study.

Non-traditional groups. Non-traditional groups are populations of people not normally served, not well served, underserved, or underrepresented by an established service delivery program (Linares & Muñoz, 2011).

Non-traditional students. For the purpose of the study, non-traditional students are individuals typically not served or enrolled in educational settings, especially in higher education (Kalsbeek & Hossler, 2010). This population of students includes individuals classified as lower income or lower socio-economic status, culturally diverse, first-time or first-generation college students, or low academic or underachieving students (Linares & Muñoz, 2011).

Sending school. Sending school is a high school with a pre-established partnership with a middle college program (Program Description, 2015). A sending school may recommend students from their district apply to participate in middle college, but the sending school continues to report any accepted student as part of their school-wide enrollment data and are responsible for the students' tuition (Program Description, 2015).

Transition program. Transition program is broad terminology for programs which support students in the transition from high school to college (Bailey et al., 2011). Typically transition programs intertwine high school and college aspects, offer opportunities for free or reduced rates on college credit, experiences and exploration in college environments, and support student confidence in academic skills (Rodríguez et al., 2012). The study focuses on credit-based transition programs, wherein students participate in college coursework while still in high school (Bailey et al., 2011).

Limitations and Assumptions

The following limitations were identified:

Sample demographics. Because the data used for the study were obtained from a student population attending one specific middle college program in an urban Midwest town, the ability to generalize the results to other similar programs statewide or nationally was limited (Fraenkel, Wallen, & Hyun, 2012). Students enrolled in MMC were typically minors, thus the collection of post-data was desired; therefore, the obtainment of secondary data and the conduction of a focus group with graduates of the program were completed with additional consent from participants (Creswell, 2014).

Specifically, data from school records for the 2011-2012 and 2012-2013 academic school years were used. These specific school years were selected for several reasons: a consistency in program design features and staff, and occurred in the most recent years yet would allow time for student participants to transition toward their post-secondary plans, another major focus of this study (Program Description, 2015). The use of specific school years put some limitations on the generalization of results to other school years

(Brewer & Kuhn, 2010). Additionally, researcher bias had the potential to exist in the accurate tracking of student data (Creswell, 2014).

Instrument. The focus group questions administered to former graduates were created for the current study and were not subjected to formal reliability and validity checks. Due to the nature of student questions, there could be some bias from students in responding to questions. Researcher bias might have been present in the development of the focus group procedures and interview questions (Creswell, 2014). For the purposes of the study, the following assumptions were made:

1. The responses of the students were assumed to be truthful and without bias.
2. The accurate tracking of student data was assumed to be carried out without bias on the part of the researcher.

Summary

A majority of high school students are interested in going to college, however, a large percentage of those interested are not successfully transitioning from high school to college (Choy, 2001; NCES, 2014a; NCES, 2014b). Identified barriers to student success include lack of academic rigor while in high school causing unpreparedness and inaccurate student expectations for college, little curriculum alignment between institutions, a lack of high school and college partnerships, and limited funding or inadequate knowledge of how to gain funding for college (Achieve, 2012; Barnett, 2010). In response to the recognition of these barriers and emerging educational research by theorists Adelman, Tinto, Barnett, and Astin, a growing number of transition programs have been developed (Adelman, 2006; Bailey et al., 2011). Transition programs such as middle colleges, focus on improving access to college, provide student support in their

transition to college, blende high school and college coursework and environments, and offer college credit for free or a reduced cost (Rodríguez et al., 2012).

Middle colleges are unique, often offering a two-year transitional program in which students participate in high school and college courses, while attending school on a college campus (MCNC, 2014b). Middle college programs provide additional student support systems for all of student participants, many of whom are typically underrepresented in college (Lieberman, 2004). Because limited research and data on transitional programs exist, the purpose of the case study and data analyses is to assess MMC as a viable educational alternative and as a program supportive of student transition from high school to college (Rodríguez et al., 2012). Research questions and key terms were identified to parameter the study. In order to lay the foundation for the study, a review of current literature will be conducted and will include educational reforms that led to the development of transition programs from a historical perspective, the challenges of high school to college transitions, and a discussion of the various transition programs in Chapter Two. The final area discussed in Chapter Two will include the background of middle college programs, the transition program of interest in the current study.

Chapter Two: Review of Literature

Various types of transition programs exist, yet the research on transition programs is limited as well as the research on why students want to attend college, but are unable to do so successfully (Rodríguez et al., 2012). While the number of transition programs grow, the unanswered question is whether students of programs like middle college are successfully transitioning from high school to college (Adelman, 2006). The evaluation of one specific middle college program may provide useful information on the effects of the program on students, along with a reference or recommendations for other middle college programs (Karp, 2012).

The purpose of this study is to carefully review the middle college concept, as an alternative to the traditional school environment with enhanced support for students' educational progression from high school to college (MCNC, 2014a). As such, historical changes have led to the inception of middle college as well as an understanding of the purpose of why middle college were developed will be discussed (Lieberman, 2004). Specifically, the purpose of this literature review is to explore relevant issues related to the transition of students from high school to college and, more specifically, how middle college programs assist students in their transition. Primarily, the analysis was on MMC and what actions the program took to promote student successful transitioning to college, and an evaluation of the program's impact on former student participants.

To understand the development of transition programs and impact on students, this chapter first provides an overview of historical educational reforms as a foundation. Then, the subsequent section encompasses a conceptual framework on the barriers students encountered, ultimately inhibiting successful advancement from high school to

college, as documented from the perspectives of Tinto, Adelman, Barnett, and Astin (Adelman, 2006). The importance of renewed partnerships between high schools and colleges, which serves as a catalyst on which transition programs were developed, will be the next topic discussed (Jennings et al., 2007). Also included in this section is a discussion of student outcomes after participation in transition programs (Cassidy et al., n.d.). Finally, the last section of this chapter includes a discussion of the middle college approach for addressing student barriers to ensure transitional success (MCNC, 2014a).

History and Overview of Relevant Educational Reforms

One of the first educational reforms relevant to the development of transition programs began in the 1890s and ended in the 1930s (Fox, 2011). This time period, was referred to as the progressive era, also known as a time when education became more available, more democratic, and more focused on practical curriculum (Tanner, 2015). John Dewey, a leader during this time, emphasized educational pragmatism, problem solving, coping strategies, identification of student interests, and self-directed studies (Tanner, 2015). Even though Dewey was highly criticized during his time, his practice of engaging students with practical learning, skill development, and understanding of unique student needs are concepts still evident in transition programs today (Fox, 2011).

The educational focus between the 1930s to the 1980s entailed various types of educational expansion (Ginsberg, 2003). Results from studies during this time period produced findings which have affected procedures and policies in high school to college transition programs today. Fox (2011) noted in *Issues of Secondary Education*, published by the National Association of Secondary School Principals, in 1936, and *Functions of Secondary Education*, published in Education Digest, in 1937, that both sources

recommended high schools increase the curriculum rigor to exceed college preparation and high schools need to provide specialized educational tracks which met the unique needs of students. Also, during this time, a study conducted in 1942 by the Progressive Education Association found selected secondary students could successfully participate in college coursework despite not having met traditional college entrance requirements (Fox, 2011). Results from these studies have indicated secondary students can participate in college coursework and students' experiences in more rigorous settings have impacted their educational success (Ginsberg, 2003). Therefore, high schools were tasked with increasing curriculum rigor and providing educational pathways for students (Ginsberg, 2003).

Another significant research study, as cited in Ginsberg (2003), conducted in the 1960s, titled *Equality of Educational Opportunity*, by Johns Hopkins University, found a student's background and experiences impact the likelihood for educational success. An additional study in the 1970s, conducted by a national commission titled *The Reform of Secondary Education* addressed the possibility of alternative educational strategies as viable options to traditional high school practices (Ginsberg, 2003). Each of these studies, occurring during the period between the 1930s and1980s, pointed to the importance of educational rigor and individualized education, the importance of access to college over traditional entrance requirements, the need for emotional student support to counteract potential student barriers, and alternative educational options to traditional practices (Fox, 2011). Each of the findings from these studies continues to be supported by transition programs.

Also in the 1960s, both the *Great Society Initiatives* and the *Civil Rights Act* impacted educational reform. The *Great Society Initiatives* led to the *Elementary and Secondary Education Act*, which provided significant federal financial aid for the improvement of educational programs and facilities and led to the implementation of an emphasis on equal access to education (Martin & Kragler, 2015). The *Civil Rights Act* of 1964 prohibited discrimination in programs which received federal funds. Ultimately, this act increased student enrollment by eliminating financial barriers, especially for students traditionally not represented in college (U. S. Department of Education, 2014). Both the *Great Society Initiatives* and the *Civil Rights Act* provided students with improved educational programs, which ultimately provided better educational services to more students than ever before (U. S. Department of Education, 2014).

Finally, in the 1970s, evidence in support of alternative education practices was published (Ginsberg, 2003). Each of the aforementioned educational milestones listed in this section changed the education field to include more rigor, more individualized education and support, reduction of student barriers, improved access to college, and alternative educational options (Ginsberg, 2003; Martin & Kragler, 2015). These findings support aspects of existing transition programs today (U. S. Department of Education, 2014).

The seminal reforms noted led to the creation of educational programing between high school and college, often referred to as transition programs (Rodríguez et al., 2012). The focus of the first middle college, established in 1974, at LaGuardia Community College, in New York, was to assist students in danger of dropping out of high school (Lieberman, 2004). The common educational approach before the development of

middle college was to lower curriculum standards for students at risk of dropping out of school. Instead, middle colleges provide high school students with a more rigorous curriculum including college coursework, while also providing students with more individualized attention and enriched support services (Lieberman, 2004).

A well-known publication of the 1980s titled *A Nation at Risk,* shocked the American public by declaring the nation's educational system at risk and underperforming when compared to other countries (Fox, 2011; Stonecipher, 2012). While the public became uneasy about the implications for the future of education (Casey, Bicard, Bicard, & Nichols, 2008), the publication and ultimately the effect on the public, reconfirmed the importance of academic rigor, availability of financial assistance, and the right to equal access to education, all of which continue to be important viewpoints in educational programs.

Other transition programs were developed in the 1980s and through the 2000s, with the common practice of placing underperforming students in challenging coursework (Ginsberg, 2003). The *Accelerated Schools Project*, developed at Stanford University, was like the first middle college in the sense the program was one of the first higher education institutions to implement a unique approach to at-risk education. *Accelerated Schools Project,* developed in 1986, placed underperforming students in challenging coursework typically reserved for gifted students, rather than the common practice of placing underperforming students in remedial classes. Administrators of the project concluded students placed in more challenging classes were more stimulated, and therefore learned more overall; thus resulting in other educational programs setting high educational standards and high expectations for success in an academically supported

environment (Teachers College, Columbia University, 2014). High curricular expectations and comprehensive support for students continues to be a common practice in middle colleges today.

The *Education Trust*, developed in the 1990s, was another program established in response to the educational reforms for students at risk of dropping out of school (Martin & Kragler, 2015). The *Education Trust* pushed for reinforced partnerships between high schools and colleges and for a closer alignment between education systems (Education Trust, 2015). *The Education Trust* increased public awareness of the dropout and transition-to-college rates and continues with this mission today (Martin & Kragler, 2015). High school and college partnerships will be discussed further in the second section of this chapter.

In the 1990s, two reforms relevant to the study began bridging the connection between education and the workforce. The first, *America's Choice, High Skills, Low Wages!,* predicted a decline in available jobs, which would lead to an increased need for employees to be educated in order to be competitive in the workforce (Castellano, Sundell, Overman, & Aliaga, 2012). This publication included information on the importance of educational rigor, financial support, alternative learning environments, skill development for school-to-work transition programs, and the need for students to go to college (Martin & Kragler, 2015) all topics which continue to be applicable to many high school to college transition programs.

The second reform was the Perkins Act of 1990, which supported the purpose of career-related education and preparing students for skilled employment, while teaching them in a rigorous environment (Castellano et al., 2012). More recently, the

implementation of the educational strategies noted in the Perkins Act of 1990, includes college preparation and was referred to as career and technical education. Career and technical education promote well-rounded educational environments that lead to steady employment (Castellano et al., 2012). The implementation of career and technical education, as an educational guide for keeping students engaged, continues to be common in transition programs.

The first early colleges were developed in 2000 as another unorthodox educational approach (MCNC, 2014a). Through consideration of the known pros and cons of the middle college movement, early colleges differed from middle colleges in several ways (MCNC, 2014b). The focus of early colleges was on accelerated college program options for students as early as the ninth grade; these programs also encompassed greater student populations and numbers of schools (MCNC, 2014b). In contrast, middle colleges focused more on educating high school juniors and seniors in a more intimate environment (Lieberman, 2004). Both programs often occur on college campuses, expose students to a rigorous educational environment, and give opportunities for free college credits, providing these components at little to no cost to the enrolled students (Jobs for the Future, 2014; Lieberman, 2004; MCNC, 2014a).

The transition programs developed during the 1980s and 2000s time period produced consistent results. The results indicate students who participated in these programs are more stimulated and learned more overall (NACE, 2014). The development of transition programs, and their practices, result in other educational programs setting high educational standards in an academically supportive environment

(Teachers College, Columbia University, 2014) and push for reinforced partnerships between high schools and colleges (Martin & Kragler, 2015).

The *No Child Left Behind Act* was developed in 2002, primarily in response to the renewed interest in the nation's education system after the publication of *A Nation at Risk* (Casey et al., 2008; Martin & Kragler, 2015). While *A Nation at Risk* focused on classified groups of students, for example, students of lower socio economic status, *No Child Left Behind* focused on individual student needs (Martin & Kragler, 2015). The resulting educational shift after *No Child Left Behind*, encompassed more focus on the needs of the individual and educational supports in order to successfully educate students and continued as a premise in high school to college transitional programs today (Casey et al., 2008).

The aforementioned historical events which lead up to and included *No Child Left Behind* led to an evolved educational system and a better understanding of the commonalities in educational reforms over time (Casey et al., 2008). The commonalities inherent in the educational reforms and tied to a student's educational success include the need for training beyond high school, the importance of access to education, financial and emotional support, and the value of a curriculum based on skill development and rigor (Teachers College, Columbia University, 2014). Alternatively, when recognized factors such as a need for training beyond high school, access to education, financial and emotional support, curriculum focused on skill development and rigor, were noted to be lacking, these deficits represent the barriers to transitional success encountered by students in their educational progression (Adelman, 2006; Barnett, 2011); therefore, coverage of these topics, along with relevant theoretical material, will be discussed more

extensively in the next section. The current state of educational affairs, including collaboration of high schools and colleges to increase successful transition and college completion rates will then follow.

Barriers to Student Transitional Success

Factors which contribute to student success or difficulties in transitioning to college can be themed into four groups: rigorous curriculum and practical skill development, educational persistence, access to college, and personal support (Bridgeland et al., 2010). According to Adelman (2006), support for the impact of the four main categories mentioned, on students' transition is provided by educational theorists and researchers Vincent Tinto, Clifford Adelman, Elizabeth Barnett, and Alexander Astin. Each of the barriers will be addressed in depth, followed by a discussion of the viewpoints of each of the aforementioned theorists.

Rigorous curriculum & practical skill development. One of the biggest barriers to transitional success is the lack of curriculum rigor and curriculum alignment between high school and college (Barnett, 2011). Adelman (2006) argued students encounter transitional barriers due to the lack of rigor in high school, leaving students underprepared for college. The lack of curricular alignment between institutions increases the amount of college coursework students are required to take, which in turn discourages students from pursuing college due to the extra required coursework, and leads to increased perceptions of students' overall inability to succeed in college classes (Maruyama, 2012). When students encounter a requirement for more college courses than originally planned, the added work load delays college completion and increases the likelihood of students dropping out of college (Kuh, Kinzie, Schuh, & Whitt, 2011).

Another study published by Maruyama (2012) found 51% of high school graduates reported they have the reading skills necessary for college. However, in truth, 60% of college students were found to test into a full academic year of developmental courses (Maruyama, 2012). Furthermore, the more developmental courses a student is enrolled in, the more likely the student is to drop out of college (Kuh et al., 2011). For students enrolled in at least one developmental course, 70% fail to complete college within eight years (Adelman et al., 2003). Improved high school curriculum rigor and improved curriculum alignment between institutions leads students to less coursework and an increased likelihood for transitional success (Adelman, 2006). Transition programs emphasize curriculum rigor, as this is one of the strongest predictors of student success in college (Struhl & Vargas, 2012).

Another barrier students encounter consists of the absence of practical skill development for future education and careers. Students have not only been at a disadvantage in their high school to college transition, but also in their transition from college to careers (Carnevale, Smith et al., 2011). A high school diploma was once considered adequate education to enter the workforce and receive a suitable wage; however, most community workforces today require more educated employees to enter the employment field (Hogan, Chamorro-Premuzic, & Kaiser, 2013). Furthermore, the expected trajectory of the amount of training necessary for workforce entry continues to require more training than expected today (Carnevale, Smith et al., 2011).

A positive relationship between students' success in college coursework and future employment and salaries exists (Carnevale, Smith et al., 2011). Specifically, some college beyond high school is linked with better opportunities for employment, increased

lifetime earnings, better job satisfaction, and a decreased likelihood to be laid off during a recession (Carnevale, Smith et al., 2011; Grusky et al., 2013). Therefore, curricula that focuses on practical skill development provides students with enhanced educational experiences, which better prepares students for additional education or careers (Association for Career and Technical Education (ACTE), n.d.). Findings such as these support an increased need for students to experience more practical skill development and provide high school to college transition programs with another goal.

Educational persistence. The second grouping of barriers related to the ability of students to persist through education and transition from high school to college include topics related to educational persistence. As discussed in Chapter One, high school students' report high interest in college, yet high school graduates are not enrolled in college at rates comparable to their interest (Choy, 2001). Even students who are able to enroll in college continue to withdraw from school in subsequent semesters (Barnett, 2011). Therefore, the majority of students report high interest in college but encounter barriers which lead to high dropout rates and unsuccessful transitioning to the college environment (NCES, 2014a).

In this section, topics of educational persistence and teacher expectations will be explained, along with a description of the impacts on these subjects on students. First, a more thorough definition of resiliency as a type of educational persistence, will be presented. A discussion of the concerns related to teacher expectations, and the positive and negative impacts of expectations on students will also be noted. Each section includes potential strategies and solutions for the implementation of persistence and positive expectations on students and within schools.

Resiliency and learning. A factor of student success not yet discussed in the study, and also lacking in the existing research is the topic of resiliency (Truebridge, 2010). Resiliency, as a means of student persistence, can be described or defined in many ways. Perkins-Gough (2013) defined this type of persistence as an ability to set long-term goals and carry them out to completion. Additionally, Truebridge (2010) described a student's ability to be resilient in the research, in terms of consistent, tenacious, and passionate.

Resiliency is grounded in the decision to sacrifice, perhaps many mediocre level interests in order to focus one's efforts toward a specific goal (Perkins-Gough, 2013). More specifically, one part of student persistence includes an ability to demonstrate optimism, the skill to impartially assess a given situation, or the intuition to step-back and think about potential options (Perkins-Gough, 2013). The tendency to persist for students is about more than experiencing adversity or failures, even for at-risk youth (Truebridge, 2010).

After exploring the meaning of the word resiliency, an exploration of the relationship between this concept and education can now be further explored. A relatively recent concern in education, is the emphasized importance on student academics and talents (Perkins-Gough, 2013). Alternatively, a lack of emphasis and ultimately understanding of the impact of students' non-cognitive abilities, including types of persistence was found (Perkins-Gough, 2013; Truebridge, 2010).

However, according to Christianson, Reschly, and Wylie (2012) more and more research in recent years focuses on soft-skills acquisition. Newfound educational research evidence supports the importance of non-academic skills, and characteristics of

determination are included in this (Christianson et al., 2012). Students with non-academic determination qualities, like tenacity, likely experience more success in education and life (Truebridge, 2010). Furthermore, some studies demonstrated qualities related to grit are better predictors of success over other measures of intelligence, like Intelligence Quotient (IQ) testing, GPA, and standardized academic achievement scores (Perkins-Gough, 2013). Additionally, the benefits of student resiliency even outweigh the benefits of talent, and interestingly, resiliency and talent related characteristics were found "inversely related" (Perkins-Gough, 2013, p. 15).

Another area to explore, related to student persistence, relates to the concept of pre-conceived notions and fixed assets (Christianson et al., 2012). Some perceive resiliency, as being similar to intelligence; as stagnant and unchangeable (Perkins-Gough, 2013). Perceptions exist which lead students to believe they cannot become or develop into more than they are which leads to "a lot of fragile, gifted and talented kids who don't know how to fail . . . or struggle" (Perkins-Gough, 2013, p. 16). However, research has dispelled this theory of fixed abilities, and has indicated resiliency, like intelligence, can be developed and built upon with more and more practice and experience (Christianson et al., 2012).

Students who simply believe they are more capable of determining their own futures, often become more resilient. Changing student beliefs, alters student perspectives of their own persistence, which can influence students' experiences related to success (de Boer, Bosker, & van der Werf, 2010). Overall, students who demonstrate the qualities of elasticity experience more success in school and life (Perkins-Gough,

2013). Therefore, a relationship can exist between resiliency, academic achievement, and life pursuits (Perkins-Gough, 2013).

Perkins-Gough (2013) indicated, in order for students to be more successful, importance must be placed on assisting students to develop other non-cognitive traits related to educational persistence in schools. Hence, the implementation of teaching strategies related to the development of grit in schools began, with the hope that more perseverance related skills would provide students with a life-long impact on their future ambitions (Christianson et al., 2012). Additionally, classroom instruction focusing on teaching students to assess, and think about options, also has led to more determination in students (de Boer et al., 2010). When appropriate levels of educational persistence are taught to students, "resiliency can be seen" in students who are not satisfied, "who chose not to set limits on their experiences or how much they can learn" (Perkins-Gough, 2013, p. 16).

Ultimately, the research demonstrates resiliency related character traits and academics are found to be important for success in school and life (Christianson et al., 2012; Perkins-Gough, 2013). Schools that are able to have some freedom in their ability to teach both aspects of educational persistence and academics are the most productive in reaching school goals and have the biggest impact on students; the results which influence students to experience more success in school as well (Perkins-Gough, 2013). Furthermore, schools that teach students non-cognitive abilities and educational achievement, but also provided students with a positive school climate rich with social and emotional support, experience a reduction in discipline and reap improvement in student achievement (Christianson et al., 2012).

Impact of expectations. Another aspect related to student success and school climate, is students' experience of teacher expectations (Christianson et al., 2012). To examine the role of expectations on students, a review of the current research reveals teachers have the power to influence student behaviors (Lane, Pierson, Stang, & Carter, 2010). Additionally, teacher expectations serve as a catalyst toward acceleration or as a minimizer of a student's likelihood for attending college (Gregory & Huang, 2013). Because of the nature of teacher's training, and exposure to a plethora of students, teachers might be in a position to be the best predictors of a student's educational success (Gregory & Huang, 2013). However, the extent to how much teacher expectations influence behavior is still an area of educational research to be investigated (Lane et al., 2010).

Lane et al. (2010) conducted a national survey asking teachers to predict their students' abilities to transition successfully into college, based on students' known behaviors in their classrooms. From this study, several facets were revealed in regard to the relationship of teacher expectations and influence on students (Lane et al., 2010). According to Lane et al. (2010) teacher expectations of students' abilities were rated lower than parents and students own self-assessment. Perhaps, teacher's low rating of students was due to teacher abilities to note student deficits, rather than student potential (Gregory & Huang, 2013). However, even though teachers tended to rate the expectations of their student low, teacher expectations had the biggest impact on student success (Gregory & Huang, 2013).

Another finding from Jussim, Robustelli, and Cain (2009) revealed teachers habitually rate certain behaviors as more strongly tied to student success, over other

qualities. Teachers rated cooperation and self-control as important qualities for student success (Lane et al., 2010). Another critical skill highly rated by teachers was student tendencies to control their tempers in situations with conflict, and the ability of students to behave, be compliant, and follow directions (Lane et al., 2010). Interestingly, student skills related to assertion were ranked low in regards to being a crucial skill for success by teachers (Lane et al., 2010).

Other insights related to teacher expectations, and the impact on students, was found in the research. According to de Boer et al. (2010), teacher expectations based on student demographics existed, along with the potential for negative impact. Several studies found evidence to support teacher propensities to favor students from families of wealth, as these students were able to elicit more positive expectations from their teachers (de Boer et al., 2010; Lane et al., 2010). Additionally, Jussim et al. (2009) found while some teachers were accurate in predicting student achievement, teacher's over- or under-estimations of students' abilities produce long-term effects on student success. Lastly, the impact of teacher expectations are often internalized by students causing them to act upon the perceptions in educational cross-road settings (Gregory & Huang, 2013).

Alternatively, teacher expectations have the potential for positive impacts on students as well. A relationship exists between positive expectations and students success in school (de Boer et al., 2010; Gregory & Huang, 2013). Additionally, the more positive expectations placed upon students directly relates to a student's demonstration of more desirable behaviors in the classroom and in later educational endeavors (Lane et al., 2010). Therefore, expectations on students has an "additive" quality (Lane et al., 2010); meaning, in terms of the impact of high expectations on students, the more people in

students' lives with high expectations, the more these concepts are reinforced for students (Gregory & Huang, 2013). More specifically, the expectation to attend college from multiple parties, like teachers, parents, peers, and the student, is significantly correlated with all levels of educational attainment in later life (Gregory & Huang, 2013).

Teacher expectations on students are significant, even when other student characteristics like social or economic status, race or ethnicity, gender, academic achievement, and placement level are taken into account (Gregory & Huang, 2013). The impact of teacher expectations is stronger for some groups of students than others (de Boer et al., 2010). Teacher expectations assist students in successfully advancing educationally, or accelerating toward college, even for students typically under-represented in college (Gregory & Huang, 2013). For example, even though evidence indicates teachers tend to favor wealthier students, teacher expectation of students from lower-income families more exponentially affected students' progress toward higher education than for students from than their wealthier counterparts (Gregory & Huang, 2013).

Additionally found is the correlation between teacher expectations and school settings. Teacher predictions and expectations of students are not significantly influenced by the school environment (de Boer et al., 2010). More specifically, the majority of school settings are not influential in teacher expectations of students (Lane et al., 2010). Even more so, no factors related to school-risk, including low student enrollment, schools located in poor communities, nor lack of population mobility, predicted teacher expectations for their students (Lane et al., 2010).

Even though teacher expectations are not influenced by school settings, consistent teacher expectations facilitate positive behavioral changes within the school environments (Lane et al., 2010). Teacher expectations of students has the potential for influence in other ways (de Boer et al., 2010). Even though many teachers are trained to focus on student deficits, after additional training, teachers are able to shift their focus toward student potential (Gregory & Huang, 2013). By focusing on the positive, teachers are better able to set established and clear expectations, reinforce acceptable behaviors at a higher rate, and are better able to demonstrate to students behaviors which were acceptable and not acceptable (Lane et al., 2010). Overall, teacher expectations of students, provide a predictive value in student abilities to succeed, despite risk in schools (Lane et al., 2010).

Access to college. Another barrier students encounter involves a lack of exposure and access to college. Tinto (1993) indicated college exposure is the key to a successful transition from high school to college. Students who enter the college environment and establish a positive college experience ultimately increase the likelihood of educational retention (Tinto & Pusser, 2006). More recent research has found similar findings; when students participated in a transition program, they are more likely to experience high school to college transitional success as evidenced by continued enrollment in subsequent college courses (Barnett, 2010). Thus, student exposure to and satisfaction with college experience serves as a precursor to educational attainment and transitional success (Kalsbeek & Hossler, 2010).

Personal support. The last category of student barriers includes those of a personal nature. Lack of emotional support leads to inevitable educational withdrawal

from school despite a student's capability of completing college coursework (Barnett, 2011). Less than 25% of students drop out of college are dismissed by the institution for inadequate performance. Most students leave school because of challenges within their family unit or for difficulties in social and psychological adjustment to college (Barnett, 2010; NCES, 2014b). Many students fail to transition from high school to college due to a lack of strong emotional and social supports. Complex interactions within a student's family of origin as well as cultural, social, political, and educational environments become the margin of difference as to whether students persist and obtain their educational goals (Kuh et al., 2011).

Students encounter many barriers to transitional success; however, students classified as *at-risk* or *non-traditional* experience these barriers to a more severe degree than traditional students (Kalsbeek & Hossler, 2010). Many of the primary reasons students are classified as at-risk or non-traditional are the same factors affecting their ability to transition well, and are concerns out of a student's control; poverty, minority status, family structure, and guardians' level of education, to name a few (Catellano et al., 2002). Similarly, non-traditional student persistence is more heavily linked to external factors, such as personal and social adjustment, support from guardians or peers, access to finances, and individual behaviors (Kalsbeek & Hossler, 2010).

Astin et al. (2010) provided theoretical support for the importance of personal barriers and expanded on the ideas of Adelman (2006) and Tinto (1975, 1993). Astin et al. (2010) hypothesized a combination of pre-college factors, like family history, and a student's experiences in college impacts a student's choice to persist or depart from college; a progression presented through Astin's input-environment-outcome (IEO)

model which describes a student progress through high school, transition to college, and college persistence. However, Astin et al. (2010) further expanded on the ideas of Adelman (2006) and Tinto (1975, 1993) through emphasis of the importance of students' demographical information and family histories. Simply stated, Astin et al. (2010) hypothesized a combination of pre-college factors and a student's social and academic experiences while in college ultimately impacts a student's choice to persist or depart from college. Because the majority of students leave college for personal reasons, an emphasis on strong support services for the high school to college transition throughout the duration of the college experience is needed (Barnett, 2010).

Students who encounter the aforementioned barriers, in curriculum rigor and alignment, educational persistence, access to college, and personal support are more likely effected in their transitional success (Barnett, 2010). In the next section, a discussion of how these identified barriers contributed to renewed partnerships between high schools and colleges. Also in the next section, is a review of how the improved partnerships between high schools and colleges ultimately led to the development of transition programs.

Transition Programs Between High Schools and Colleges

Historically, community colleges and high schools were closely linked (Ginsberg, 2003). Early in the twentieth century, community colleges were formed as extensions of high schools; however, community colleges and high schools began to develop separate agendas, which ultimately led to some of the barriers students experience in transition from one institution to the next (Ginsberg, 2003; Cassidy et al., n.d.). An increased awareness of the barriers students encounter shift the focus of educational programs away

from an emphasis on dropout prevention toward a renewed interest in high school and college partnerships and ultimately the development of transition programs (Jennings et al., 2007).

Even foundations support renewed high school and college partnerships (Bill and Melinda Gates Foundation, 2009; Lumina Foundation, 2014). For instance, the Carnegie Foundation, a leader in the provision of aid for higher education to low- and middle-income students, provide funding for high school to college partnerships in order to increase student preparedness for transitional success (Bill and Melinda Gates Foundation, 2009). In addition, the Bill and Melinda Gates Foundation (2009), a worldwide organization focused on improving high school and college education, supports efforts for transition programs in order to address student retention and college preparedness concerns. Another foundation in support of partnership and transition programs is the Lumina Foundation (2014), a national organization dedicated to increasing student success in higher education.

High school and college relationships are renewed after many educational reforms and with an increased awareness of the barriers students encounter in their educational transition. These renewed partnerships with colleges and high schools have continued to expand in recent years, mostly due to the increased need for completion of college credentials for gainful employment (Barnett & Hughes, 2010; Van De Water & Krueger, 2002). Van De Water and Krueger (2002) defined the partnerships between high schools and colleges as agreements to provide an educational progression path, and ultimately progress toward work. These renewed partnerships provide a foundation on which current transition programs are developed (Adelman, 2006). Transition programs are not

solely beneficial for students to obtain some college credit at a low cost (Carnevale, Rose et al., 2011). Transition programs like middle colleges focus on eliminating the barriers students encountered in their transition from high school to college (Carnevale, Rose et al., 2011). Transition programs are successful at transitioning students from high school to college by providing students with access to college education and exposure to college environments while students were still enrolled in high school (NCES, 2014a.). The transition programs in which students received high school and college credit are referred to as credit-based transition programs (Cassidy et al., n.d.). Herein, credit-based transition programs which assisted students in their transition from high school to college will be generally referred to as transition programs.

Outcomes and benefits of transition programs for students. Programs developed from the partnership between high schools and colleges, with intentions of eliminating or reducing the barriers students encounter in their transitional success, produce positive outcomes for students; which are evidenced in high school, in college, and in the workplace (Karp, 2012; Kuh et al., 2011). While in high school, credit-based transition programs provide students with variety in their educational settings, with opportunities for students of various ability levels to participate, and with expanded and diverse high school curriculum, which includes academic and technical coursework (Cassidy et al., n.d.).

Students who participate in college coursework while still in high school fare better in college after high school graduation than those who do not participate (Barnett, 2011). Obviously, because of the nature of transition programs, participants earn more college credits at the time of high school graduation, nevertheless, an added benefit for

participants in transition programs is students earned higher grade point averages than their high school peers (Swanson, 2008). Student participants of transitions programs have a better understanding of college expectations, and therefore are more likely to continue college enrollment, are likely to be successful in subsequent coursework, and are more likely to earn a college certificate or degree (Barnett, 2011; Struhl & Vargas, 2012).

Additionally, the culture of transition programs assist students in identifying as a college student and assists students in better understanding the college culture; both of which lead to empowerment, an increased overall satisfaction with the college environment, and the likelihood to persist in college (Barnett, 2011). Such levels of student satisfaction are found to be precursors to educational attainment and other dimensions of student success (Kalsbeek & Hossler, 2010).

While hands-on activities or internship components are occasionally offered to students in high school, many transition programs offer these experiences to students with positive outcomes (NCES, 2014a). Transition programs with a strong emphasis in credit-based, hands-on, and internship-based experiences, provide better overall educational experiences and ultimately better prepare students for additional education or careers (ACTE, n.d.). Other benefits of transitional programs have been seen for non-traditional students, as well (Jobs for the Future, 2012) an important group to consider given their increased likelihood to encounter barriers to transitional success (Kalsbeek & Hossler, 2010). Students who belong to a non-traditional group are more likely to be successful in transition programs than in traditional academic settings (Kalsbeek & Hossler, 2010). When non-traditional students participate in transition programs, they

obtain better graduation rates, earn more college credits, and are more likely to continue college at a faster rate when compared to national averages, all at a reduced cost (Jobs for the Future, 2012).

Outcomes and benefits of transition programs for communities. Programs developed from the partnerships between high schools and colleges with intentions of eliminating or reducing barriers students encounter in their transitional success produce positive outcomes for communities as well (Hogan et al., 2013). Currently, most communities demand more than a high school education for workforce entry and earn a proper wage (Hogan et al., 2013). The need for more educated employees for the workforce also reinforces the need to develop successful transition programs.

Additional education beyond high school coursework provides students with better opportunities for employment, better pay, better job satisfaction, and a decreased likelihood to be laid off during a recession, which ultimately improves and stabilizes local economies (Grusky et al., 2013). More specifically, up to four-fifths of students and their communities reaped benefits when students complete at least some additional education (Grusky et al., 2013). Completion of some college led to better communities all around: economically, socially, politically, and culturally (Grusky et al., 2013). Therefore, a better understanding of the impact of transition programs on students and the community, reconfirms support for transition programs.

Discussion of transition programs. In this section, an overview of the different types of transition programs will be presented. With many high school to college transition programs in existence, the terminology and types of programs has grown accordingly. In order to provide the reader with better clarity and understanding and to

better explain the program of focus for the case study, an explanation and brief overview of programs will be provided.

Dual enrollment, sometimes referred to as concurrent enrollment, is an umbrella term for a type of transition program where students have the chance to participate in college credit while in high school (Barnett, 2010). Students in dual enrollment are typically high school juniors and seniors, who experience the challenges of college coursework while in a supported environment (Karp, 2012). The methods and locations of dual enrollment programs vary (Barnett, 2010; Karp, 2012).

There are two primary types of transition programs: high school based and college based, with the name as an indication of the primary location of the program. An example of a high school based transition program is dual credit (Karp, 2012). While dual credit and dual enrollment terminology are often used interchangeably in the literature, these terms are not synonymous (Karp, 2012). Dual credit refers to a specific type of high school based transition program in which students receive both high school and college credit, but courses are typically taught at the high school by a high school teacher (Barnett, 2010). Dual enrollment refers to the overarching concept of students earning college credit while in high school (Cassidy et al., n.d.). Dual enrollment offerings are traditionally developed for advanced students, but include a variety of students in a variety of settings today (Cassidy et al., n.d.).

College based transition programs combine aspects of high school and college for an academically challenging, student support-centered environment, which included exposure to the college environment. Transition programs located on the college campus differ from high school based transition programs; students enroll in actual college

courses and attend classes on a college campus (Karp, 2012). Programs with of a college based nature empower even struggling students, to finish high school with college credits and the skills for further success in college (Jobs for the Future, 2015).

Transition programs occur at more than half of existing college institutions. Overall, 53% of colleges report having high school students enrolled in college coursework through their institution, with 83% of students participating in college credit at the college campus (NCES, 2014a). Examples of college based transition programs include early and middle colleges, both of which will be discussed next.

The common goal of both early college and middle college programs is to eliminate barriers students encounter in their transitional success; five distinguishing characteristics delineate the two. A brief comparison of these characteristics assists in better understanding of middle colleges and in narrowing the focus of the study. The first distinguishing characteristic refers to the date established; early colleges were established approximately thirty years after middle colleges, and early colleges took into account the known pros and cons of middle colleges during developmental stages (Lieberman, 2004).

The second separating factor is early colleges are typically bigger in student population size than middle colleges and are often compared to large high schools in enrollment numbers (Lieberman, 2004). Thirdly, early colleges are able to provide more opportunity for college credits earned because college credit is offered to students beginning in the ninth grade (MCNC, 2014b). In contrast, some middle colleges offer services to juniors and seniors only (MCNC, 2014b).

Because students of early colleges earn credits at an earlier age, students are eligible to earn more college credits or even an associate's degree by the time of

graduation (Barnett, 2010; Lieberman, 2004; MCNC, 2014b). Lastly, early colleges are considerably more prevalent than middle colleges, as there are over 240 early colleges and only approximately 30 schools classified as middle colleges in existence nationally (Jobs for the Future, 2015; Lieberman, 2004). Because the purpose of the current study was to evaluate the impact of middle college on student educational advancement, additional discussion solely consisting of the middle college program will be presented in the next section.

Middle College

The middle college was conceptualized in 1972, established in 1974, and was built on a partnership between a high school and a college (Lieberman, 2004). Middle colleges are often referred to as a college based transition program or an alternative or progressive high school, as their practices vary greatly from traditional education (MCNC, 2014a). Middle college goals include a student-supported, academically challenging environment, where even struggling students gain opportunities for success in school and with future employment (Jobs for the Future, 2015).

Generally, middle college schools are operated by a public school, with classes taught by the public school teachers within the district, and include the partnership with a local college and college instructors (Institute of Education Sciences, 2009). Students follow college schedules and college academic calendars (Lieberman, 2004). Enrolled students participate in a variety of high school and college courses in a regular school day and continue the path toward high school graduation (MCNC, 2014b). Blending the high school and college curriculum decreases the amount of time toward completion of high school and earned college credits, which provides students with the opportunity to save

both time and money (Barnett, 2010; Jobs for the Future, 2015; Lieberman, 2004). At some middle colleges, a college credential certificate, or even a college degree, can be obtainable (Institute of Education Sciences, 2009).

Middle colleges often address the aforementioned barriers to student transitional success as discussed earlier in this chapter: rigorous curriculum and practical skill development, educational persistence, access to college, and personal support (Bridgeland et al., 2010). Educational research by Adelman, Barnett, Astin, and Tinto, support the concepts of middle college as contributions toward student success in school (Adelman, 2006). Each of the groups of barriers will be discussed in regards to how middle college and more specifically how MMC approach these barriers to assist student participants in reaching educational success.

Some middle colleges confront concerns related to rigorous curriculum and practical skill development by focusing on practical, hands-on learning with career and technical education emphasis (MCNC, 2014a). Some middle colleges even offer internships for students, in their chosen field of study (Lieberman, 2004). The internship sites are typically developed from partnerships between middle college administration and local employers (Program Description, 2015). These internships assist students in gaining academic engagement and students can participate in paid internships which assist with financial barriers to success (Program Description, 2015).

Internships are offered to students based on their interests, abilities, related course curriculum, and career goals (Program Description, 2015). Schools which offer internships better prepared students to enter the world of work through career exploration at an earlier age and through development of the skills needed for workforce entry

(MCNC, 2014a.) Students who are provided relevant educational and work experiences stay more engaged in school curriculum, which leads to a decrease in chance of withdrawal from educational settings (Lieberman, 2004; MCNC, 2014a).

Middle colleges assisted students with educational persistence through smaller student enrollment numbers and a smaller ratio of students to faculty and administrators, than other traditional school environments and transition programs (Lieberman, 2004). Traditionally, middle colleges operate with approximately 100 students per grade level (Institute of Education Sciences, 2009). The practice of limiting the total number of students enrolled ensures a smaller ratio of students to faculty and administrators, which lead to the availability of increased student support and the likelihood of success in coursework (Lieberman, 2004).

Exposure and access to college, the third barrier students encounter, is an inherent piece of the middle college environment. One primary goal of middle colleges was to promote continued enrollment in school through exposure to the college environment (Lieberman, 2004). One of the unique aspects of middle colleges, in comparison to other transition programs, includes the extent to which students are exposed to the college environment while receiving intensive support services (Jennings et al., 2007).

College exposure is thought to help motivate students toward completion of high school and college credits (MCNC, 2014a). Students exposed to the college environment encounter an increased likelihood for continued enrollment (MCNC, 2014a). The correlation of college exposure and continued enrollment is thought to be due to the student's experience of individualized attention, a practical connection to learning via real-world experiences, critical thinking projects, and internships that aligned with

student career interests (Institute of Education Sciences, 2009). Furthermore, student exposure to the college environment leads to an increased likelihood for continued enrollment, likely due to the students experiencing individualized attention, a practical connection to learning, and exposure to career interests (Barnett, 2010).

Personal support is the final factor of concern for students in transition from one educational entity to the next. Extensive support services commonly practiced in middle college settings often include counseling, academic advising, peer support, and mentoring (Institute of Education Sciences, 2009). Because middle colleges are typically marketed to non-traditional students and provide them with the same enhanced comprehensive student supports, these students are more likely to succeed in coursework than similar students in traditional educational settings (Lieberman, 2004).

Summary

Many factors contribute to the development of credit-based transition programs (Bridgeland et al., 2010). Educational reforms shape the way education is ultimately provided to students (Ginsberg, 2003). In addition, educational research findings conclude students report high interest in college yet students are not successful in the enrollment or transition to college (Adelman, 2006; Choy, 2001; NCES, 2014a). An understanding of educational dropout rates and the barriers students encountered lead to an educational shift with less emphasis on dropout prevention and more emphasis on successful high school to college transition programs (Barnett, 2010; Rodríguez et al., 2012).

Students are not persisting toward their educational goals, due to the various barriers they encounter (Adelman, 2006). The barriers student encounter as a hindrance

in educational success, often include concerns related to lack of curriculum rigor and the development of practical skills, educational persistence, opportunities for exposure to college, and personal supports (Adelman, 2006; Barnett, 2010). Student educational persistence can be further separated into qualities of learning resiliency and impacts of expectations on students, with findings supporting non-academic student characteristics linked with determination and high expectations from teachers, as strong influencers of student success in school (Christianson et al., 2012; Gregory & Huang, 2013; Jussim, 2009; Perkins-Gough, 2013, Truebridge, 2010).

High schools and colleges began a renewed interest in developing partnerships between institutions, which subsequently has triggered the development of various transition programs (Jennings et al., 2007). The existence of transition programs is linked with many outcomes and benefits to students and communities (Grusky et al., 2013; Hogan et al., 2013; Karp, 2012; Kuh et al., 2011). Students benefit from transition programs with increase educational persistence in high school and college, as well as gainful employment (Karp, 2012; Kuh et al., 2011, Struhl & Vargus, 2012). Communities benefit from the existence of transition programs with stable local economies, and more citizen engagement in social, political, and cultural aspects (Grusky et al., 2013).

While many transition programs exist, middle colleges provide a unique college-based approach for students (MCNC, 2014a). Middle college offer students a chance to enroll in high school and college curriculum simultaneously (MNCN, 2014b). Also, students are provided with additional academic and personal support not traditionally offered in the high school settings (MNCN, 2014b).

Chapter Three, the methodology section, includes an overview of the problem and purpose of the study, a review of the research questions, and an explanation of the research design. Next is a description of the instrumentation and a discussion of validity, reliability, and limitation issues inherent. Finally, the specifics of the procedures for data collection are given in detail, along with the proposed data analysis, and ethical considerations.

Chapter Three: Methodology

In this chapter, the methodology used to examine one Midwest Middle College, MMC, and the effect of the program on student participants, will be explained. The chapter begins with the discussion of the difficulty of students transitioning from high school to college. The purpose of the study, the examination of the impact of MMC, will be at the core of the study. Research questions and the population and sample will be addressed. Lastly, a discourse on the procedures and methods for data collection will be discussed, along with the plan for data analysis.

Problem and Purpose Overview

Many high school students report a high interest in college, yet experience difficulty in their transition from high school to college (Adelman, 2006; Choy, 2001; NCES, 2014a). Students are more likely encounter obstacles during their transition from one institution to the next, as evidenced by dropout rates in high school, as well as a lack of enrollment or dropout rates in college (Achieve, 2012; Barnett, 2010). For some students, the difficulty in successfully progressing into the college environment has little to do with academic abilities. Furthermore, students classified at-risk or non-traditional, encounter these barriers at a greater rate than their peers (Castellano et al., 2012). The purpose of this study is to determine if MMC, located on a Midwest Community College campus, was a program supportive of student transition from high school to college. Although the study briefly describes the general middle college design, the focus of the study is an analysis of MMC and the evaluation of its impact on student participants.

Research questions. The following research questions were used to guide the study:

1. In what ways does participation in MMC affect students' attitudes toward school and preparedness for post-secondary education or workforce entry, as reported by student participants?

2. What differences exist, if any, between the average daily attendances rates of students prior to attending MMC and the average daily attendance rates of those same students after attending MMC?

H_0 There is no significant difference between the average daily attendance rates of students prior to attending MMC and the average daily attendance rates of those same students after attending MMC.

H_1 A significant difference exists between the average daily attendances rates of students prior to attending MMC and the average daily attendance rates of those same students after attending MMC.

3. What differences exist, if any, between high school students' GPA prior to attending MMC and high school GPA of those same students after attending MMC?

H_0 There is no significant difference between high school students' GPA prior to attending MMC and high school GPA of those same students after attending MMC.

H_1 A significant difference exists between high school students' GPA prior to attending MMC and high school GPA of those same students after attending MMC.

4. What differences exist, if any, between MMC students' dropout rate and the average statewide high school dropout rate?

H_0 There is no significant difference between MMC students' dropout rate and the average statewide high school dropout rate.

H_1 A significant difference exists between MMC students' dropout rate and the average statewide high school dropout rate.

5. What difference exists, if any, between student graduates of MMC who continue their education at the target site community college and those who do not?

H_0 There is no significant difference between student graduates of MMC who continue their education at the target site community college and those who do not.

H_1 A significant difference exists between student graduates of MMC who continue their education at the target site community college and those who do not.

Research Design

The research design for the study was mixed methods. According to Fraenkel et al. (2012) the "use of more methodologies . . . [lead to] more reliable information upon which to base our educational decisions" (p.7). A mixed-methods design allowed for more methodologies to be utilized, including both qualitative and quantitative aspects within the same study (Fraenkel et al., 2012).

Qualitative research and quantitative research practices vary greatly in their purpose, methods used, types of study, researcher's role, and in the possibility of

generalizing the results (Fraenkel et al., 2012). Simplistically, qualitative research primarily focuses on words, while quantitative research focuses on numbers (Creswell, 2014). More specifically, the premise of qualitative research encompasses the idea that multiple viewpoints exist based on individual perceptions of the same experience (Fraenkel et al., 2012).

Qualitative research is typically more flexible as the research design may evolve or become evident during the research process. Researchers of qualitative approaches are typically immersed in the research environment (Fraenkel et al., 2012). Alternatively, quantitative researchers support the importance of impartial perspectives, wherein thoughts and feelings separate from the numbers (Fraenkel et al., 2012). Quantitative researchers also believe only one viewpoint exists, rather than multiple views, and the research design is pre-determined (Creswell, 2014).

Qualitative and quantitative practices each have distinctive aspects which support the research process, however, these qualities could be limited when only one type of research is utilized (Creswell, 2014; Fraenkel et al., 2012). Qualitative research is typically unique and specific and therefore research findings cannot typically be generalized to other populations or situations (Creswell, 2014). The quality of qualitative research is dependent upon the researcher; therefore, the research is more likely to be biased, as the researcher has a greater impact on participant responses and also on confidentially (Creswell, 2014; Fraenkel et al., 2012). Furthermore, the volume of data obtained in qualitative research makes analysis and interpretation time consuming and difficult (Fraenkel et al., 2012). Qualitative findings are not always widely accepted, as

this type of research is considered by some to not be as scientific as other approaches (Fraenkel et al., 2012).

Quantitative research has limitations as well. Research methods of quantitative research are inflexible and not adaptable after the start of the research project (Fraenkel et al., 2012). An additional limitation of quantitative research is the potential for incompleteness or lack of consideration of contextual factors (Brewer & Kuhn, 2010). Quantitative research primarily focuses on numbers and inherently excludes other types of information; these unexpected variables account for information of power or feeling which have the possibility for exclusion from consideration in the results (Creswell, 2014; Fraenkel et al., 2012). Therefore, in order to maximize the unique aspects of both types of research and minimize the boundaries, a research design which encompassed aspects of qualitative and quantitative practices was utilized for the study.

While mixed-method designs are more time consuming than utilizing a single approach, mixed-method approaches are becoming more common and the overall benefits of mixed-methods are plentiful (Creswell, 2014). According to Fraenkel et al. (2012) the mixed-method approach provides three benefits. First, the design of a mixed-method approach allows the researcher to gather and analyze more varied types of data (Fraenkel et al., 2012). Second, mixed-methods research assists in clarification and explanation of the relationship between the data obtained (Fraenkel et al., 2012). Third, mixed-method designs assist the researcher in comparing or contrasting information, or to validate the data found between the two qualitative and quantitative methods (Fraenkel et al., 2012). Another benefit of the utilization of quantitative research mixed with a qualitative component, is quantitative research inherently allows for more potential to

generalize the research findings beyond the scope of a specific study; the ability to generalize findings for qualitative only research does not typically occur (Brewer & Kuhn, 2010; Creswell, 2014; Fraenkel et al., 2012).

While a few different types of mixed-methods research exist, one specific mixed-method design aligned with the projected course of the study. The mixed-method, "triangulation design" utilized both qualitative and quantitative qualities to study the same "phenomenon to determine if the two converge upon a single understanding" (Fraenkel et al., 2012, p. 561). Creswell (2014) referred to the same concept of conducting both qualitative and quantitative research simultaneously, and then the comparison of the results as "convergent parallel design" (p. 219). Essentially, the benefits of a mixed-method design outnumber the limitations of an isolated qualitative or quantitative approach (Creswell, 2014; Fraenkel et al., 2012). Therefore, data from both the qualitative and quantitative procedures were considered equally in order to provide evidence for the impact of MMC on student participants.

Population and Sample

The population involved in the study referred to a Midwest community college where the targeted middle college, MMC, was a part of the larger campus. The community college, located in a metropolitan area, was considered the third largest community college in the state, with over 15,000 students enrolled. The college is classified as a public, two-year college, with one-year certificate degrees available. The college not only provides general education courses, but also has many technical education programs, and evening courses available. Overall, the average class size was approximately 23 students per faculty member. The student population consisted of 48%

full-time, 58% female and 89% Caucasian students, which was comparable to the local county at 91.8%, and 61% were 24 and younger. Retention rates for full-time students is 59% over the course of an academic year. Nearly 40% of students graduated or transferred to another institution within the average time to completion (U.S. Department of Education, 2015). As an added service, the community college created MMC to support additional high school students on campus (Program Description, 2015).

To describe the sample population, in the 2011-2012 and 2012-2013 target years investigated for the study, 46 students enrolled for the 2011-2012 school year, and 59 students enrolled for the 2012-2013 school year, which resulted in 105 total potential participants eligible to be included in the quantitative portion of the study. In the target years, there was a total attrition rate of 14 students. Thus, 91 total students were completers of the program within the targeted years. While students who began the program did not necessarily complete the program, this did not necessarily mean students dropped out of school altogether, but part of this attrition rate could mean students were not ready for the college environment and therefore returned to their sending high school (Program Description, 2015).

Students in the program reported themselves demographically as 2% American Indian or Alaska Native, 13% Black or African American, 7% as Hispanic or Latino, 1% as Native Hawaiian or Other Pacific Islander, and 75% identified as White or Caucasian. Fifty-three percent of the students enrolled at MMC during the target years were seniors, leaving 47% as juniors who would likely continue the following year and complete another year of study. Additionally, there was no discriminatory selection of students during the enrollment process (Program Description, 2015). Students were enrolled

through four local sending school districts. Students in MMC were included in the total student population for the community college, with one goal of MMC to transition students into enrollment with the community college (Program Description, 2015).

According to Fraenkel et al. (2012) the ideal practice for research is to include the entire group of interest, or target population, rather than a selection of participants from a whole. Therefore, for the quantitative aspect of the study, no selection or sampling procedure occurred, because the entire target population, of MMC participants within the target years, were included in the study (Creswell, 2014; Fraenkel et al., 2012). The qualitative portion of the study involved former MMC graduates in the sample (Creswell, 2014).

The data from the qualitative portion of the study were smaller in numbers, than those obtained from the quantitative data. According to Creswell (2014) the difference in sample size occurs because the purposes for each type of research are different; qualitative data collection included a small number of participants because the focus was on the amount of information obtained, while the quantitative data collection included a large sample size in order to conduct a significant study. Disproportions in samples sizes for qualitative and quantities designs, within a mixed-methods study, had the potential to not cause an issue as information from one method may be used to help support the information obtained from another (Creswell, 2014; Fraenkel et al., 2012). Therefore, differentiation in sample sizes occurred between the qualitative and quantitative measures used in the study.

Instrumentation

The instrument for the qualitative portion of the study included a protocol to conduct a student focus group (see Appendix A). The focus group questions were generated by reviewing past student surveys completed by MMC students while still enrolled in the program. In addition, faculty and staff reviewed the questions and provided historical feedback to strengthen the questions asked of participants (Creswell, 2014). The focus group was utilized to evaluate student perceptions and attitudes regarding the impact of MMC on students and their future success.

The quantitative collection of de-identified secondary data allowed for a comparison of pre- and post-data of high school attendance rates and GPA, dropout rates of participants compared with statewide high school dropout rate data, and continued college enrollment rate at the target site for graduates of MMC. Specifically, data on students were collected from when students were first accepted into MMC and after the completion of a two year enrollment period. Data sources were obtained from the target site research office and public statewide records. The quantitative data involved the implementation of comparison of means using a Microsoft Excel data file.

The independent variable in the study was represented by the implementation of MMC (Fraenkel et al., 2012). The experimental group was MMC students, and the control group was the students included in the statewide records for comparison (Krueger & Casey, 2014). These student factors of attendance, GPA, dropout rates, and subsequent college enrollment rates represented the dependent variables of the study and were indicators of successful transitioning from high school to college (Barnett, 2011;

Bridgeland et al., 2010). Therefore, information from the focus group and data analysis of student factors provided evidence for the efficacy of MMC as a transition program.

Student focus group. A student focus group was utilized to assist in the determination of MMC as an effective transition program. According to Morgan (2012) focus groups are a widely accepted research technique used to collect data through group interaction. Focus groups became increasingly popular as a resource in applied social research, like those research techniques used in educational settings (Hepburn & Wiggings, 2007).

The practice of focus groups has many benefits, especially when conducted by a researcher who understands the process (Krueger & Casey, 2014). The benefits of focus groups includes the fact that the information provided by participants allows the researcher to review what was actually said by participants, rather than work with theoretical hypotheses about the happenings of a given service, product, or program (Puchta & Potter, 2004). The benefits of focus groups improve when participant interactions focus on finding feelings, attitudes, and perceptions about a subject, and when questions and interview guides are created and prepared in advance (Krueger & Casey, 2014; Vaughan & Prediger, 2014).

The purpose of focus groups differ due to the type of research and planned outcome of the study (Puchta & Potter, 2004). The purpose of a focus group is not to discuss, reach a summative conclusion, or to problem-solve, but to obtain information from participants about their thoughts, feelings, and perceptions of a given phenomenon (Fraenkel et al., 2012; Krueger & Casey, 2014). The purpose of focus groups is to create a research question, or to offer extra information for research analysis, or to provide an

evaluation of a product, service, or program (Puchta & Potter, 2004). In order to better clarify, focus groups are not support groups, they are not unfocused in the goals and purpose, and were conducted to allow participants to interact with each other (Morgan, 2012). Furthermore, focus groups varied greatly from other forms of research like surveys or questionnaires, in which the information obtained could be clear and easily collated. Focus groups depend upon the information provided by participants in order to describe and evaluate a subject area (Hepburn & Wiggings, 2007; Vaughan & Prediger, 2014).

When conducting a focus group, participants are asked a series of questions, and the group setting allows for participants to answer, hear the responses of others, and then participants have the opportunity to provide additional information about their thoughts and opinions in reflection or response to the information produced by others (Krueger & Casey, 2014; Fraenkel et al., 2012). Focus groups typically have a clear beginning, middle, and end. The beginning usually consisted of a welcome, and explanation of the purpose and the expectations of the group (Hepburn & Wiggings, 2007). The middle portion includes proposal of the research questions to the group, and allows for conversation between group members (Vaughan & Prediger, 2014).

The final part of a focus group session involves thanking and debriefing the participants (Fraenkel et al., 2012; Krueger & Casey, 2014). Focus groups are interviews conducted in a small group setting, and could last one to two hours (Puchta & Potter, 2004). Usually there are five to ten participants, but could be as few as two to as many as twelve participants (Krueger & Casey, 2014).

A student focus group was conducted, at the target site community college, with graduates of MMC included in the focus group, as well as a moderator (Creswell, 2014). The questions in the focus group were developed from the known comments frequently made by students of MMC, from former surveys on MMC students, and the proposed questions were reviewed by faculty and staff in order to provide supplemental information and strengthen the questions asked. Because the qualitative focus group inherently required a student interaction component, participants of the study were no longer enrolled in MMC at the time of the study.

Validity and reliability of instruments. Validity refers to the extent to which an instrument measures the intended purpose and performs as designed to perform and reliability referred to the instruments measurability of intention and consistency (Fraenkel et al., 2012). More specifically, there are many ways to analyze the validity of an instrument, including external and content validity (Fraenkel et al., 2012). External validity refers to the extent to which the outcomes of the study can be generalized to other populations, while content validity refers to the degree to which an instrument appears to measure the intended variable (Creswell, 2014; Fraenkel et al., 2012).

According to Creswell (2014) multiple methods can be used to convey qualitative validity. The methods suggested by Creswell (2014) and used in the study included triangulation of data by comparison of qualitative and quantitative outcomes, detailed description of the focus group happenings, clarification of researcher bias, and utilization of a moderator during the focus group interaction. Another way to increase content validity is to conduct a pilot group, or a small scale trail, prior to the focus group (Fraenkel et al., 2012). Additionally, an attempt at increased reliability was provided

through the use of MMC Staff and Instructors for review and approval of questions, and through the use of the focus group pilot test (Creswell, 2014; Fraenkel et al., 2012).

Quantitative methods encompassed aspects of validity and reliability as well, through external and content validity (Fraenkel et al., 2012) which were discussed. External validity could be possible in the study since the goals of most middle college programs were similar. Content validity was present but not easily measured given the student factors addressed in the data analyses were similar to factors identified in the literature review as relevant in transitioning from high school to college (Fraenkel et al., 2012).

Pilot testing helped test the plan for the focus group and finalize details of the procedures and questions before the focus group was conducted (Krueger & Casey, 2014). The use of a pilot group assisted in strengthening the reliability and validity of focus group questions and clarification of procedures (Krueger & Casey, 2014). As a pilot group encompassed almost all of the same elements the intended study, only the number of participants and time of the pilot study differed from the planned focus group (Puchta & Potter, 2004). The experiences and feedback provided from the pilot group participants were utilized to revise the procedures and questions for the focus group (Krueger & Casey, 2014; Vaughan & Prediger, 2014).

Student data. In order to analyze student academic progress, pre- and post-data for each student were obtained from the research office of the target site institution and from MMC student management system in the following categories: attendance rates, GPA, dropout, and post-secondary enrollment status. Thus, the data collected were from secondary sources (Fraenkel et al., 2012). Information for each student was de-

identified, for protection of participants and confidentiality reasons (Creswell, 2014; Fraenkel et al., 2012). Participants were randomly assigned a participant number, in order to accurately track pre- and post-data on the students (Fraenkel et al., 2012). A Microsoft Excel document was used to enter collected data, and assign participant numbers, prior to the communication of information to the researcher and before inclusion in the study (Fraenkel et al., 2012). Then, data were collected from sources outside MMC including statewide records (Creswell, 2014). Public statewide educational records were collected, in order to compare the average statewide dropout rate with MMC dropout rates (Creswell, 2014). The comparison of data and subsequent statistical analyses were also conducted (Creswell, 2014; Fraenkel et al., 2012).

Data Collection

There were two major parts in the procedures for data collection. One, the information obtained primarily from students, and two, quantitative data obtained from the target site institution and MMC student records and statewide data on four categories of student information were collected. Several steps were necessary in order for data collection to occur for the two major parts of data collection.

First, Institutional Review Board (IRB) approval (Fraenkel et al., 2012) was obtained from Lindenwood University (see Appendix B) and the target site (see Appendix C) before any data were collected for this study. Information obtained from the pilot group was utilized to make adjustments to the final focus group questions and procedures before the final focus group occurred, and subsequent data collection happened (Creswell, 2014).

Once approval was obtained the initial stages of focus group occurred, with the inclusion of obtaining the participant sample and invitation of participants still enrolled at the target site community college to participate in the focus group (see Appendix D). Graduates of MMC were invited to participate via email and personal phone conversation (Krueger & Casey, 2014). The invitation included the target site middle college as the topic to be discussed (Puchta & Potter, 2004).

Students of MMC who accepted the invitation, were randomly selected (Fraenkel et al., 2012) and provided a reminder (see Appendixes E) of the time and location of the focus group, along with the number of participants to expect, and information about the session being recorded (Puchta & Potter, 2004). On the day of the focus group, the moderator and student participants signed a consent form (see Appendix F and G) prior to involvement in the study (Krueger & Casey, 2014; Puchta & Potter, 2004).

Next, the moderator and participants followed the outlined procedures for the focus group (Krueger & Casey, 2014). The focus group session lasted approximately one hour, had a clear welcome with expectations, a proposal of eight open-ended questions to the focus group participants, and closure where participants were thanked for their time (Hepburn & Wiggings, 2007; Morgan, 2012; Vaughan & Prediger, 2014). The focus group was recorded for later transcription and data tracking purposes (Creswell, 2014). Focus groups were recorded via video and audio. The focus group was later transcribed by a transcriptionist who also signed a consent form, and the transcript was later analyzed by the researcher in order to look for themes provided by student statements (Krueger & Casey, 2014).

Subsequently, a request was made to the staff of the research office at the targeted site institution for MMC graduate data. The requested data obtained from the target research site and from MMC student management system, included data for graduates of MMC on four student factors: attendance, GPA, dropout rates, and subsequent college enrollment rates at the target site community college. The information obtained was de-identified data, collated, and entered into an Excel spreadsheet prior to submission of the information to the researcher and included in the study (Creswell, 2014; Fraenkel et al., 2012). Data for statewide dropout rates were available as public information online, and added to the Excel document. Lastly, the comparison and statistical analysis of student data were conducted.

Data Analysis

The results of the information obtained from focus group participants provided descriptive data on students' attitudes and preparedness for future education or workforce entry. Responses from students were grouped into themes, after transcription of the statements made in the focus group occurred (Krueger & Casey, 2014). The responses from the participants provided additional data regarding MMC and the interventions implemented to help students achieve a successful transition from high school to college.

Data collected from the target site institution on students who graduated from MMC were used in pre- and post-data comparisons and statistical analyses. The information gathered from the target site included pre- and post-data on student attendance, GPAs, dropout rates, and subsequent college enrollment rates. Information obtained from statewide dropout rates were added, prior to statistical analysis. Participant data were then analyzed through utilization of a type of *t*-test. *T*-tests were a

method used to statistically analyze two separate means in order to determine if a statistical significance existed between the two means (Bluman, 2014; Fraenkel et al., 2012). A comparison of means *t*-test indicated the data collected for all students were averaged before being compared to its counterpart (Bluman, 2014); for example, the average attendance for student participants before entering MMC were compared with the average attendance for student participants after completion of a two-year enrollment period. Essentially, for each student category a comparison of averages occurred (Fraenkel et al., 2012).

Because the research on attendance percentage, GPA, and subsequent college enrollment, focused on the same group of participants, before and after MMC intervention transpired, a within-subjects, *t*-test for correlated proportions occurred (Bluman, 2014; Fraenkel et al., 2012). Another focus was on dropout rates, but compared different groups of students, namely those who participated in MMC with statewide dropout rate data. Thus, a between-subjects *t*-test for independent proportions was used for this research question (Brewer & Kuhn, 2010; Fraenkel et al., 2012). Both the within-subjects, correlated proportions and between-subjects, independent proportions *t*-test were considered two-tailed, as a significant difference in the results for these research questions was hypothesized (Bluman, 2014). All 91 students included in the sample size were included in quantitative statistical analysis conducted.

Ethical Considerations

While the researcher worked at the target site community college, the researcher had little to no contact with MMC program, during the target years. Therefore, a layer of protection existed between the researcher and the study (Creswell, 2014). Additionally,

the use of a pseudonym was used throughout the study to refer to the target site middle college, which consequently provided further protection of participant identities and school location (Fraenkel et al., 2012).

Confidentiality for the qualitative portion of the study was not guaranteed, due to the nature of focus groups (Hepburn & Wiggings, 2007; Vaughan & Prediger, 2014). Additionally, focus group procedures occurred in order to inform participants their statements would not be directly linked to them and statements made by others were not to be repeated outside the focus group (Vaughan & Prediger, 2014). Furthermore, the use of a focus group moderator and later a transcriptionist assisted in adding a layer of protection for the study participants (Krueger & Casey, 2014). The moderator and transcriptionist signed confidentiality agreements as well. Confidentially in the quantitative data collection portion happened, as participants remained anonymous; each participant's data were randomly assigned a number before the information was provided for the study (Creswell, 2014). No individual results of student performances were shared; only group means were used for comparison (Fraenkel et al., 2012).

Furthermore, any data collected for the study were saved on a restricted intranet drive at the target site. Any records maintained during the study were kept locked and confidential to any outside inspection. Also, the likelihood of results becoming public without approval of the target site was not possible. Any communication between the target site, researcher, and participants, was face-to-face, by phone, or via secure district e-mail addresses. Answers to pertinent questions about the research and the participants' rights was directed to the researcher.

Summary

In this chapter, the statement of the problem for students attempting to transition from one institution to the next led to the purpose of evaluating the effects of MMC on student participants, which also led to the proposed research questions in order to provide evidence for the program. The mixed-methods design was described along with the components of the qualitative and then quantitative pieces (Fraenkel et al., 2012). Primarily, the qualitative aspect of the study encompassed the student focus group, while the quantitative portion included pre- and post-comparison of attendance and GPA rates, along with dropout rates compared with statewide data, and finally, subsequent college enrollment rates at the target site institution (Creswell, 2014; Krueger & Casey, 2014). The population and sample of MMC participants were explained, along with the risks and benefits for participants, confidentiality of student information and records, and limitations of the study (Creswell, 2014; Krueger & Casey, 2014).

The instruments used in the focus group included an invitation and reminder, consent form, and procedures and questions for student participants (Fraenkel et al., 2012; Krueger & Casey, 2014). Another instrument, Excel, was used for the quantitative portion, which allowed for data collection, collation, and statistical analyses (Fraenkel et al., 2012). The validity and reliability of each of the instruments, along with their limitations was also discussed (Creswell, 2014). The procedures for data collection were outlined, followed by the process of data analyses (Bluman, 2014; Creswell, 2014). Proposed hypotheses outcomes for each research question were provided before the close of the chapter.

In Chapter Four, an extensive analysis of the target research site and case study findings, along with the results of the data analyses, will be discussed. Chapter Five will finish with a discussion of any conclusions, implications for practice, and recommendations for future research. The references and appendices will be outlined in the final pages.

Chapter Four: Analysis of Data

The focus of middle colleges is to support students in completing high school and supporting them in a successful transition to college (Barnett, 2010; MCNC, 2014a). Since inception of the first middle college in 1974 (Lieberman, 2004), the program continues to provide a rigorous academic curriculum within a supportive environment to a student population historically underserved and underrepresented in higher education (MCNC, 2014a). While attending a middle college, some barriers to success for students are alleviated, including the chance to enroll in college classes at no cost to themselves and opportunities to obtain more practical and applicable experiences (MCNC, 2014b).

Middle colleges continue to support students today. Due to benefits of student participation in middle college, students are more likely to successfully transition from high school to college (Institute of Education Sciences, 2009; Lieberman, 2004). Overall, middle colleges today maintain original goals and benefits to student participants through educational, emotional, and financial support not found in traditional high school settings (Jennings et al., 2007).

The purpose of this study was to carefully review the middle college concept, as an alternative to the traditional school environment with enhanced support for student educational transition from high school to college (MCNC, 2014a). Primarily, the analysis on MMC, the school in this study, included program components inherent in eliminating barriers to a student's educational progression to college, as well as an evaluation of the program's impact on former student participants. The goals of the study surrounded five research questions which included qualitative and quantitative aspects. The qualitative research question addressed student perceptions of MMC (Creswell,

2014). Data were collected using a focus group of student graduates of MMC (Creswell, 2014). The four other research questions relied on quantitative data gathered at the institution in this study (Krueger & Casey, 2014).

There were two primary goals of the study. First, gathering firsthand information to garner student perceptions of the program in order to determine if barriers to academic success were removed and students perceived they had accomplished success by attending MMC. The second goal was to determine if a statistical significant difference existed in four critical areas; attendance, grade point average, dropout and retention rates.

The study consisted of a mixed-methods design due to the combined benefits of qualitative and quantitative aspects (Creswell, 2014; Fraenkel et al., 2012). A mixed-methods design provided the structure to gather and analyze a variety of data, assisted in clarification of the relationship between the data obtained, and allowed for comparison of information to validate the data found between the two methods (Fraenkel et al., 2012). Another benefit to the utilization of a mixed-methods approach was the potential to generalize the research findings beyond the scope of a specific study (Brewer & Kuhn, 2010; Creswell, 2014; Fraenkel et al., 2012). Therefore, in order to maximize the benefits and minimize the limitations, a mixed methods research design was utilized for the study.

A focus group was utilized in order to obtain qualitative information from students about their experiences and insights of the program impact on their future endeavors (Creswell, 2014). A copy of the focus group transcripts, consent forms, and any de-identified, secondary data used in the study were kept in a password protected file, only accessible by the researcher. The results of the information obtained from focus

group participants provided descriptive data on students' attitudes and perceptions of preparedness for the future (Fraenkel et al., 2012). After the focus group, a transcriptionist transcribed the statements from the recorded focus group session (Krueger & Casey, 2014). Responses from students were later grouped into themes (Krueger & Casey, 2014).

In addition, several types of quantitative data were garnered. A comparison of pre- and post-data on attendance and GPA, along with dropout rates compared with state averages, and post-secondary enrollment at the target site community college, assisted in provision of additional research to supplement the lacking research on middle college programs and the barriers students encounter in transition overall.

In the next sections, analysis of data collected in the study are presented. The first section includes a detailed description of the demographics for study participants, especially within the secondary data. The following sections include findings and results from the focus group responses and statistical analysis of data, from each of the study's research questions, in order.

Respondent Demographics

The respondent population involved in the study included former students of MMC. Participants in the qualitative and quantitative components of the study graduated the program and were of legal age. Only participants of the case study site, in the target years 2011-2012 and 2012-2013 were included in this study. Demographic information for the quantitative analysis will be described first in this section in order to further describe the population involved in the study. Demographic information for the quantitative component was available and obtained through MMC records and the target

site research office (Program Description, 2015). Focus group participants came from the population described in the quantitative portion. Demographic information was not collected from focus group participants. Additionally, any overt characteristics of the focus group will be described along with how these observed characteristics align with the population as whole (Fraenkel et al., 2012).

Quantitative. According to Fraenkel et al. (2012) the ideal practice for research is to include the entire group of interest; therefore, for the quantitative aspect of the study, no selection or sampling procedure occurred, and no participants were excluded (Creswell, 2014; Fraenkel et al., 2012). More specifically, 46 students enrolled for the 2011-2012 school year, and 59 students enrolled for the 2012-2013 school year, resulted in 105 total potential participants eligible to be included in the quantitative portion of the study. In the target years, there was a total attrition rate of 14 students. Thus, 91 total students were considered program completers within the targeted years and made up the study sample.

Students in the program, during the target years included in the study, reported themselves in MMC school records demographically as 2% American Indian or Alaska Native, 13% Black or African American, 7% as Hispanic or Latino, 1% as Native Hawaiian or Other Pacific Islander, and 75% identified as White or Caucasian. Fifty-three percent of the students enrolled at MMC during the target years were seniors, leaving 47% as juniors who would likely continue the following year and complete another year of study. Additionally, there was no discriminatory selection of students during the enrollment process (Program Description, 2015).

Qualitative. The qualitative portion of the study involved former MMC graduates in the sample. Of the 91 student completers of the program in the target years, 15 candidates were invited to participate in the focus group, 11 students responded to the invitation, and seven students were randomly selected to participate. On the day of the focus group, the seven participants arrived and joined the focus group. No respondents were removed due to failure to sign or provide informed consent; thus resulted in a qualitative sample size of seven focus group participants. The qualitative sample included three female and four male participants. The observable characteristics of the focus group participants appeared to accurately represent the population described in the quantitative portion of the respondent demographic section.

Results from Analysis

The procedures described and conducted for the study were completed in compliance with the specifications of the Lindenwood IRB and the target site community college IRB. After permission was obtained from IRB, two primary components of data collection and subsequent data analysis occurred. The data collection included obtaining information from the students in the focus group, and quantitative data garnered from student records and statewide data on the four categories of student information outlined in the research questions. Presented in the following sections is the analysis of data, divided by qualitative and quantitative forms.

Qualitative. A student focus group was utilized to assist in the determination of MMC as an effective transition program. Graduates of MMC were invited to participate in the study (Krueger & Casey, 2014). Students who accepted the invitation, were randomly selected (Fraenkel et al., 2012). Randomly selected students were provided a

reminder of the time and location of the focus group, along with the number of participants to expect, and information about the session being recorded (Puchta & Potter, 2004). The focus group was conducted with graduates of MMC as participants, as well as a moderator to lead the session (Creswell, 2014; Krueger & Casey, 2014).

On the day of the focus group, the moderator signed a confidentially form and student participants signed a consent form prior to involvement in the study (Krueger & Casey, 2014; Puchta & Potter, 2004). The participants and moderator followed the focus group procedures (Krueger & Casey, 2014). The session lasted one hour, with a welcome and expectations, the presentation of eight open-ended questions, and closure with the participants thanked for their time (Hepburn & Wiggings, 2007; Morgan, 2012; Vaughan & Prediger, 2014). Focus groups were recorded via video and audio, and were later transcribed by a transcriptionist who also signed a confidentiality form (Creswell, 2014; Krueger & Casey, 2014).

Findings from research question 1. The first research question, (*In what ways does participation in MMC affect students' attitudes toward school and preparedness for post-secondary education or workforce entry, as reported by student participants?),* was conducted through a focus group and analyzed by the researcher to look for themes in student responses. Research question one will be addressed by the following focus group questions.

Focus group question one. *Why do you think so many students are unsuccessful in high school?* There were eight responses from focus group participants for the first question. One consistent answer from most of the group surrounded teachers and school personnel. Most of the responses were indicative of a lack of relationship with the

faculty from the sending schools. Female Student #1 felt she was unsuccessful due to how she was treated: “they [sending high school personnel] didn’t just treat us like humans.”

Additional points from students in the focus group indicated their lack of success prior to MMC came from their perceptions teachers were not high quality, were teaching for the wrong reasons, and generally lacked empathy for students. Male Student #3 simply responded to the question about his lack of success with “poor teachers”. Female Student #1 further described her teachers as having conflicting interests; stating her teachers were only “teaching to coach.” Female Student #2’s response indicated her previous teachers lacked empathy because teachers “cared that you turned in your work, not that you learned.”

A few of the focus group participants further explored their perceptions of the relationship of success and school staff, by likening teachers and school personnel from their sending high school with a comparison of staff at MMC. Students reported staff at MMC recognized students as individuals. Male Student #4 presented an experience at MMC which impacted his level of success: “It’s like they realized I was a person for the first time here [at MMC] rather than . . . an assigned seat.”

Male Student #1 further compared his experiences with success and school staff, by eluding to the helpful nature and responsiveness of staff at MMC. Male Student #1 stated, when he attended his former high school and had a question, the response was “ask somebody else.” However, Male Student #1 went on to say, when he had a question for staff member at MMC, “the teacher will actually help you.” This same participant

quantified his experience of the difference in the helpfulness and responsiveness of staff with “That’s huge.”

Focus group question two. *Why do you think some students say they are better at school while at MMC, than at their previous school?* There were nine responses from focus group participants. One of the common ideas discussed included engagement and freedom. Most of the focus group participants concurred a lack of engagement existed for them at their sending high school. Female Student #1 stated:

> Like at my high school, I would leave every day. I would just have my parents call me out. Because I had teachers that didn’t care. That is, since freshman year, they would be like you should just drop out now.

Four students commented on increased engagement at MMC due to a difference in perception of freedom. Female Student #2 stated:

> [The staff at MMC] don’t like hover over you. I feel like my high school tried to dictate everything down to like where you sat in a classroom. Well, how am I supposed to learn when you’re trying to control me? I don’t learn that way.

Students appeared to correlate attendance as evidence of engagement and success, as many commented on their attendance in response to the focus group question. A few students reported low attendance at their sending high school because they “didn’t care” for the environment. Female Student #2 added, “I really didn’t have good attendance unless if [*sic*] my sport was in season, because I had to be there.”

Another factor students reported as a measure of success was GPA. Some students experienced conflicting outlooks on the impact of more rigorous coursework at MMC on their GPA as compared with their former high school. One student indicated

his GPA decreased while at MMC, due to the difference in curriculum rigor, while another student commented her GPA improved, because she was more interested in the subject matter despite the increase in course rigor. Male Student #4 stated, "It's harder classes [at MMC], so because of the grading and stuff, my GPA dropped." While Female Student #2 stated, because she was able to help pick her classes, she "actually wanted to learn" which resulted in a higher GPA.

Focus group question three. *What unique experiences did you get to be a part of because of Middle College?* There were nineteen responses from focus group participants after Question Three was presented to the group. When asked about their unique experiences, there were three consistent concepts inherent in their responses. One major point made by students referred to the uniqueness of courses and instruction. Another perspective presented by focus group participants was the difference in the learning environment compared with previous educational experiences. Lastly, students reported perceived benefits to their future as a unique quality of MMC.

Some of the focus group participants discussed how courses and instruction were approached differently at their former schools; mainly with more limitations. Male Student #2 stated, students can only "learn about certain material at high school" and students may not get to explore a variety of courses "because they [sending high school] don't have that capacity." Students who were interviewed also reported MMC had more courses and variety to choose from and the rigor was more advanced, than they had previously experienced. Male Student #3 stated, "The work [at MMC] is a lot harder, and a lot more, but it doesn't matter." Female Student #2 confirmed that the "college setting" of MMC gave her "choices" in class scheduling. Male Student #2 coincided

with his response: MMC provided him with “different classes” and “more advanced choices” than his previous experience.

The learning environment at MMC was different than in traditional high schools, according to student participants. Female Student #1 reported more “drama” at her sending high school, which likely impacted the learning environment. Male Student #2 discussed the rigidity of the teaching style and expectations for student work at his former high school with an example from a math class: “I got the same answer . . . and I tried to show her [the math instructor] how I did it . . . and she tried to fail me.”

Students reported MMC staff adapted instruction to meet the needs of the students and provided more opportunities for hands-on learning. Male Student #2 started this piece of the discussion, when he reported teachers at MMC “change their teaching method to cope with your [participating student’s] learning style.” Female Student #2 mirrored this line of thinking, when she replied “people . . . learn differently” and referred to the individual learning styles of students as unique as well. In addition, Female Student #1 emphasized the uniqueness of the hands-on learning experience at MMC, when she stated students from her sending high school “wouldn’t have been able to work with kids” like she experienced in the early childhood development courses.

Students also highlighted the impact of their education on their future and provided insights as to how MMC uniquely approached experiences related to students’ future goals. Students perceived more opportunities for internships and job opportunities related to their interests, and scholarships, than at their sending high schools. Focus group participants didn’t go into much detail about the disconnect between their former educational experiences and their future endeavors. However, Male Student #2 discussed

his current employment in two positions, and stated he "wouldn't have been able to get that [either] job opportunity after high school" without participating in MMC.

Female Student #2 demonstrated her perceived value of MMC, when she stated MMC overall "makes you feel like, I don't know, I don't want to say older, but like you're actually going somewhere." Female Student #3 further specified her perception of the impact of MMC on her future, when she stated she had "priority hiring" in her current employment due to her unique experiences at MMC. Female Student #3 expounded on the impact of MMC on her chances for college scholarships when she stated MMC "gives out a lot of scholarships" and alternatively implied the amount of scholarships given at her former high school did not compare.

Focus group question four. *How does Middle College help students, for example with school or personal issues, that doesn't happen at other schools?* Thirty responses from the focus group participants were counted after the question was proposed to the group. Student responses eluded to a difference in culture between the educational settings they had experienced. More specifically, students cited the responsiveness of staff, along with a willingness to bond with students seemed distinctive to them.

Female Student #2 described her former high school staff as unhelpful and stated the staff had a habit of diffusing responsibility onto others. She explained, "Sometimes at my home high school I would go to ask a question, and they're like oh honestly I don't know. So and so takes care of that and they're never here, so . . ." Female Student #3 supported the idea of sending high schools lacking responsiveness with her own similar experience: "If you try to access anyone, at [sending high school], they will say like, oh yeah, like two months from now."

Alternatively, focus group participants reported one of the most helpful factors of MMC program, was not only the dedication of the staff but the perception the staff wanted to work at MMC. Female Student #2 noted differences in the school cultures by describing her perception of MMC: MMC staff "work together . . . it's like if you go in, they all pretty much know what's going on with every aspect of [target site MMC]. So, if you ask one person, you get a straight forward answer. Female Student #1 felt her experience led her to believe the staff's desire to work at MMC made a difference; she stated MMC staff worked at the school "for a reason" and stated staff "chose" to work at MMC.

Furthermore, according to focus group responders, not only was MMC staff responsive and demonstrated a desire to work with students, but students also reported on MMC staff's awareness of students including personal concerns. Several students mentioned a "bond" with staff. Female Student #1 further clarified this bond when she described one of her first experiences with a MMC staff member: "I met him once and he knew my name." Male Student #4 attributed the perceived positive differences in culture might stem from the ability of staff to be more available due to "smaller class sizes" and quantified by stating MMC had less than 100 students enrolled between both junior and senior years.

Focus group question five. *Describe how Middle Colleges "felt" compared to the other schools you attended.* Of the 17 responses obtained from the focus group participants, the overwhelming focus related to topics of acceptance and connectedness. A few students reported previous experiences in their high school environment felt exclusive. Male Student #4 described how students formed "cliques", and Female

Student #3 supported the limitations of student groups at her former high school, when she claimed students "couldn't become friends" if students were involved in different groups. Female Student #1 stated she "basically hated everyone" when she described how she felt about her previous high school.

Students reported a feeling of greater acceptance at MMC. Students in the focus group felt the environment at MMC was more inclusive and generally felt more "at home". Students stated they felt less worry about physical appearance and impressing others after enrollment with MMC. Female Student #1 further discussed an example of how she knew she felt more accepted; she stated she use to put a lot of effort into her appearance, and now, after participating in MMC, she stated she "doesn't even care about that" anymore. Additionally, students also explored the areas of acceptance and connectedness through their explanation of how their friendships had changed. Female Student #1 reported:

> The friendships I have here, there's not a day goes by that I'm not with someone [I like], or like Friday nights the whole [MMC student] group gets together and those are friendships you don't make in high school.

Focus group question six. *How is Middle College more flexible than other schools you have attended?* The topics expressed within the 17 responses from focus group participants, included a lack of flexibility regarding class schedules and overall school environment at their previous schools. Many students expressed feelings of being "harassed" and felt they were treated as being untrustworthy at their high school. Male Student #3 illustrated how he was treated when he was "a few minutes late" to class: "At my old high school, they kept the doors locked and someone had to escort you." Other

students stated they were often questioned from hall monitors and other staff, and experienced locked school buildings. Male Student #4 also discussed the rigidity of signing in an out procedures at his former high school, how he had to provide evidence of his whereabouts, like "doctor's slips" in order to "go back" to school for the day.

Students communicated an experience of more understanding and flexibility from MMC staff regarding tardiness or absences for medical appointments, surgeries, and personal concerns. The second quote from Male Student #3 spoke of the difference in climate of MMC compared to his previous sending high school. "It's more open. It's not a hassle just to go to and from class." Female Student #2 stated, when she had surgery, the "teachers she was close with came to her house for homebound [instruction] . . . and they worked with me."

Students indicated MMC's inherent flexibility and increased understanding from staff allowed students and staff to work together in creating class schedules, especially when work was necessary for internships or personal reasons. For students who regularly worked late hours, and were on track to graduate high school, students had the opportunity to schedule classes with a later start time, early release, or even a reduced class schedule. Evidence of more flexible scheduling and more understanding of the unique needs of students was further evidenced by the following student quote from Male Student #4:

> Last year I worked third shift. So since I worked 3rd shift, I went in [to work] at 11:00 at night and got off at 8:00 in the morning. I couldn't come in [to school] at 8:00 AM, because I was just getting off. So, they [MMC] made it so I could

> come in later in the day, instead of having to be here early and gave me less classes so I could work . . .

All of the students in the focus group appeared to prefer the flexibility of scheduling and the perceived understanding attitude of staff at MMC. Other preferences in regards to flexible scheduling included free lunch periods; students reported they had free lunch periods at MMC, wherein students had the opportunity to leave campus for meals or students could also use this time for appointments during the school day. A few students also commented on the preference for more time between classes at MMC, than was available in their former schools.

Focus group question seven. *How did Middle College help you get ready for future?* This question was presented to the group participants. There were ten responses to focus group question seven. Female Student #1 discussed her perception of former high school staff's approach to discussing future plans with students as untimely and with limited perspective:

> At high school, you go in your senior year, and they're like oh what do you want to do? . . . they would push you and push you to go to college . . . and half of the time the kids say they want to go to college, so they don't have to have a conversation with them.

One main goal of MMC was to provide students with more opportunities to experience exploration in courses and internships, than if students had stayed at their sending high school. Male Student #2 provided support for the concept of more opportunities overall, when he stated he felt "one step ahead of the game" after participation with MMC program. Focus group participants not only discussed

opportunities, but the students also reported frequent conversations with staff about their future plans. Female Student #1 stated staff at MMC "keep up with you", regarding your plans, and stated conversations with students about future plans occurred "monthly." To provide evidence for how MMC provided students with opportunities for exploration, Male Student #4 stated:

> When I came here I didn't know what I wanted to do. So, I tried four programs of the six. Now, I'm doing just my gen eds [general education college courses required for a degree] because I decided that's a good path. So they're not sitting here telling you, 'you tested into this,' 'you should do this.' They're asking 'what do you want to do?' It's not just what they think the best option for what you know, but what the best option for who you are, not what you do.

Additionally, some students commented on the variety of course options, the amount of college credits earned, and also how curriculum or interest related internships were often paid. Male Student #2 stated, staff at MMC "ask you what you want to do, then find classes that are related" during semester enrollment periods. Male Student #2 also stated his classes helped him "explore stuff" and earn "a lot of credits". Male Student #1 further explained how MMC staff assisted students to "figure out what you want" through "more individualized help" in exploration through interest related courses or internships.

A few of the students who participated in the focus group also reported help with college application related materials through participation in MMC. Male Student #3 stated MMC staff "help you with scholarships." While Female Student #2 provided a description of how she was helped by one of her teachers in the process of filling out

college applications “she sat me down and showed me the steps”. Female Student #2 noted afterward her teacher asked “Did you turn it in yet?”

Focus group question eight. *What questions have I not asked that would be important to know?* This open-ended question was the last one presented to the focus group participants. No further information was gained from asking this question, therefore, the session was concluded and the participants were thanked for their time. The closing statements from the moderator reflected the focus group procedures.

Analysis of Developing Themes. The next step in analysis was to look for themes to student responses. The data garnered from the focus group sessions were read multiple times and analyzed for patterns and commonalities (Krueger & Casey, 2014). The following subsections categorize the themes which arose from the focus group participant discussion.

***Failure to launch*.** The concept of failure to launch, as it refers to the study, describes the notion of students’ inability to transition toward success, especially in educational endeavors. Based on the responses from focus group participants, an interplay existed between the traditional school environment and student qualities. Four main categories including the traditional school environment, relationships with others, student outcomes, and students’ inability to conform, will be discussed in relation to students’ perceived failure in their educational setting prior to attending MMC. The following accounting will detail qualities students possessed in the traditional school setting, their level of engagement in the environment, and how the students became aware of their unique needs and ultimately sought an educational change.

Failure to connect to the environment. The environment of their traditional high schools affected the student participants of the focus groups. Overall, students in the focus group consistently described the educational settings of their traditional schools negatively. Students reported several instances of confinement within the school building, and included their perceptions of being limited within the hallways and classrooms. The following quotes from students further illustrate the confinement experienced in traditional high school settings. Male Student #4 made a point regarding the overall feel of the school setting atmosphere:

> At [sending high school] they won't even walk [escort] you to your car. You can't go. If you left your stuff in the car you are SOL [simply out of luck], you are done. They ain't taking you out there.

Male Student #2 went into additional detail about school personnel escorting him. He reported hall monitors approached him and asked him questions when he was in the halls, including when he "was going to the bathroom" or for being "late" to class. Female Student #2 spoke of the environment within the classrooms as well; 'I feel like high school tried to dictate everything down to like where you sat in a classroom."

Students emphasized how they felt when describing how they were treated within the traditional school setting, and also quantified how the educational setting impacted their behaviors through their attendance. In the discussion of the school environment and the resulting limitations on students, Male Student #2 stated "I hate that so much." Three students further discussed how the environment affected their behaviors and attendance. Male Student #2 stated, "I was so glad when I had a doctor's appointment. It meant I didn't have to be there and I had an excuse to leave."

Since all participants in the focus group purported negative thoughts about their previous educational placements, their responses can infer a couple of concepts. First, a connection existed between the perception of the environmental setting and students' engagement in school as evidenced by attendance rates. Furthermore, due to the students' perceptions and descriptions of confinement within school settings, students reported feelings of relief or a desire to leave school when they felt they had an option to do so. Ultimately meaning, students' negative perceptions of their school setting had an impact on their engagement in school and educational success.

Failure to establish relationships. Relationships with school personnel appeared to have an impact on students, as reported by focus group participants. Students indicated they not only had difficulty connecting to staff and peers, but also described how these relationships impacted their educational success. Again, the overwhelming majority of students in the focus group reported negative experiences or instances of conflict within student-to-staff and student-to-student connections.

Primarily, the responses from focus group participants related to failure to connect were given as examples through discussion of school personnel. Students felt teachers were not passionate about learning, lacked empathy, and seemed oblivious to student concerns. Female Student #2 described her perception of her teachers as "My teachers didn't really care . . . they cared what you turned in, [but not] anything else, or to follow up with you." Female Student #1 perceived her former high school personnel as being non empathetic regarding her financial concerns and need for a balance between school and work: "My high school was like, whatever, you have a job? Maybe you shouldn't do it."

Relationships with sending school counselors were also mentioned by a few students as a concern. Students indicated counselors at their previous schools were unavailable and unsuccessful in their approach to students. Female Student #3 stated, "In the two years [I was enrolled] at my old high school, I probably saw my counselor one time." Female Student #1, stated even when she met with her counselor, the approach to addressing or discussing the concern was off-putting; "The counselor would get on to you for getting an F" grade, rather than discussing possible solutions.

Secondarily, a few student respondents cited a lack of connection with peers as a concern as well. Focus group participants described their former high school peers in terms of student groups or cliques, and the limitations of being a part of certain student category. Female Student #3 described how opportunities for socializing with peers outside of her defined group were restricted; because "she was a volleyball player, and I was like in orchestra and different things . . . in high school we couldn't have become friends."

The resulting effect of a failure to connect with school personnel and peers resulted in several concerns for students. These expressed concerns, as related to a lack of relationship, led students to encounter conflict with others, failing grades, and suggestions to drop out of school. Male Student #2 stated, "I actually got in a fight with a teacher at my home high school one day 'cause she told me that the way I was doing my math was wrong, but I got the same answer just quicker. She tried to fail me." Female Student #1 indicated she struggled with her attendance, and the response from school personnel when she was present, was to "drop out now."

Generally, students reported several concerns related to relationships at their former high school. Thus indicated students' negative perceptions of the relationships with school personnel and peers, impacted students engagement in either type of relationship and influenced student conflict, grades, and decisions regarding dropping out of school. While there were no countervailing comments in this category, two students pointed out positive outcomes from their former relationships at their sending schools: an introduction to MMC and better friendships within MMC setting.

Failure to obtain desired outcomes. Students reported several outcomes as a result of the interplay between the environment and relationships with school employees. Due to the negative perception of the traditional high school environment and the relationships within those settings, students stated they experienced several educational concerns related to attendance, grades, and learning. Students in the focus group reported the environment and relationship at their previous school impacted their attendance the most, as evidenced by the number of students who commented on the topic. Male Student #2 stated, "I had bad attendance at my high school, because I didn't care." Female Student #1 also discussed her lack of connection with her former high school, by quantifying her attendance: "My attendance was below 70 percent."

The second outcome most commonly discussed during the interplay of sending school environment and relationships with school personnel and peers, was the perceived impact on students' grades, and learning or understanding class content. Focus group participants reported a primary experience of poor grades and a lack of understanding of the material. Male Student #3 stated he struggled at his former school: "I didn't

understand a lot of stuff at my high school." Female Student #2 expressed she couldn't learn in the "controlled" environment of her former high school.

However, two students indicated different outcomes as a result of the traditional school environment. While Female Student #2 stated she felt learning in her former educational setting was difficult, she also reported, "I would get good grades, but I didn't retain any of the information." Male Student #4 indicated a similar experience; while he lacked a connection to the environment at his previous school, his grades were higher then. Male Student #4 further stated, "In my high school, I had a higher GPA and better grades than I do here."

The overwhelming majority of students reported negative experiences within their former school environment and relationships with staff and peers. Students also indicated the lack of connection within their sending high schools negatively influenced their attendance, grades, and overall ability to learn. The perceived negativity led students to participate in activities which had an inhibiting impact on their education. Despite lacking a connection, two students reported a conflicting experience in comparison with the group and indicated a positive outcome with grades. However, these same students also expressed their grades were not a true reflection of understanding, nor did students report they were able to retain the information learned; which presented another potential conclusion of a flaw in the linking of student grades as evidence of student learning.

Failure to conform. Participants of the focus group, not only described their former experiences in a more traditional school environment, but also discussed the behaviors they demonstrated in those settings. Students' perceptions regarding their

behaviors, along with measurable outcomes of grades and attendance, provide evidence of students' lack of engagement. From the focus group participant discussion of their former educational experiences, another underlying concept arose. While students were unsatisfied, disconnected, and in many ways unsuccessful in their former environments, students of the focus group appeared to possess other qualities which lead them to embrace a new type of educational model with MMC.

An apparent awareness originated within students while enrolled at their former high school. Students acknowledged their former placements were not supportive of their success in high school or toward future goals. Female Student #2 explained her thoughts on school personnel and her perception of their outlook. She stated, staff at her former school were not focused on "get[ting] you thinking about what you want to do in the future. It's like they thought it wasn't important. They didn't seem to care past graduation from high school." Male Student #4 was able to explain the impact of his lack of connection and the effect on his future college options; because my attendance and grades weren't "good enough there [at my sending high school], I couldn't do that [participate in the A+ scholarship program]."

Essentially, not only were students aware of their needs and recognized a change was needed, but students were also proactive in their approach and recognized the opportunities at MMC were available to them. Male Student #2 made a couple of comments related to his forward thinking of the future; "It's not like just another school somewhere else that will prepare you for college, it's [MMC is] actually connected to the college [target site community college]." Male Student #2 continued his expression of the

value he placed on a new educational opportunity; “I felt getting college credits was better than staying at [name of sending high school.”

In summary, students within the focus group possessed qualities of awareness toward their current environment and ultimately the impact of their experiences on their future. Students also indicated a certain type of proactive quality was necessary in order for students to seek out educational change and apply to MMC. It is possible student qualities of awareness, future impact, and proactive decision making, despite dissatisfaction with the environment, were unique to the students within the focus group, as not all students dissatisfied with their high school environment enroll in MMC.

Humanistic. Student participants of the focus group consistently reported discontent with their former educational experiences. Furthermore, students indicated the disconnect they perceived in their former settings led students to behave in ways which impacted their success at school. However, students noticed a difference in the environment and treatment of students when comparing their former school settings with MMC.

Overall, students reported MMC as a more accepting environment, with more flexibility. When discussing how students were treated differently than in their former high schools, focus group participants noted the relationships experienced with staff and peers of MMC were of a more open nature. Focus group participants indicated the individualization within school environment and positive encounters with people, led students to make more successful choices. Because the environment described by students seemed to support the whole person, rather than the group, the developing theme for the section encompasses several humanistic components.

Accepting atmosphere. One of the predominant topics discussed by students, was the overall difference in perception of school environments after exposure to MMC. In their previous school environments, the students perceived their physical appearance, such as dress, make-up, hairstyle, and personal décor, was met with negativity from staff as well as students. At MMC, students reported they were judged on the person they were, rather than the appearance they projected. After describing their former school environments, students within the focus group were able to detail several unique aspects of MMC environment. Students described MMC's differences through three categories: increased feelings of acceptance, greater flexibility, and the impact of the described differences on student behaviors.

In comparing overall differences in school environments, two students discussed the perception of a more accepting atmosphere at MMC. Female Student #1 first described her former school environment, before indicating the importance of a more accepting environment, ". . . then you come here [to MMC] and everyone is the same. That's the main thing for me." Female Student #2 added her opinion in comparison of school environments overall, with MMC and the [target site community college] as "super accepting."

To more specifically detail the difference in environment, the next two topics of perceived differences in treatment were discussed equally by students within the focus group. First, on the topic of treatment, Female Student #2 reported she was treated with acceptance in MMC and within the target site community college as a whole; "every college class I've been in . . . all my peers treat me like a college student." Male Student

#4 also discussed a difference in treatment within MMC environment; “Everybody’s the same. There’s no cliques. Everyone is one clique.”

Students also provided evidence for how they knew they felt in MMC environment. Male Student #4 indicated he noticed the environment was more open, through observing his peers; “You can have those days where you don’t want to get out of bed and wear pajama pants and a hoody. Or you can be dressed up every day.” Female Student #2 also described how she knew the environment was different, due to changes in her outward behaviors; “I am not afraid . . . I feel like I could walk in anywhere, wearing anything and just fit in anywhere.”

Overall, students within the focus group discussed one major component to the differences between their former educational environments and MMC. Students made multiple comments describing the most noticed difference was the perception of a more accepting atmosphere. Students also indicated how the environment of MMC helped them to be more understanding of their peers and worry less about their appearance. Thus indicating students’ perception of an open school environment connected to a student’s ability to be understanding toward others and more accepting of themselves.

Flexible environment. The second most frequently discussed aspect of MMC environment described by students were the flexible aspects of the school environment. Several students in the focus group mentioned MMC allowed flexibility for individualization of students’ needs, so students could reportedly be more successful. Male Student #4 described the unique environment as “[MMC] provides an opportunity for freedom, not just course selection, but general freedom.” Male Student #1 also

provided a generalized statement describing the environment; everything is more individualized to help you figure you what you want."

The flexibility described by the focus group participants, and listed in order of frequency of statements, included attendance, appointments, jobs, classes, and transitioning between classes. Male Student #4 described how flexible MMC environment was regarding attendance, "Here you can just go. You don't have to mess with the office. I can just go on my lunch. I don't have to worry about signing out." More specifically Male Student #4 clarified how the flexibility assisted him; I can set up "doctor's appointments during lunch, and I don't have to miss school." Female Student #3 agreed with Male Student #4, "They [staff at MMC] don't have to know that you went to the doctor because that time is free for you."

Not only was flexibility in the school environment a positive component for students, but students also reported the flexibility in selection of classes and transition times between classes as a positive as well. Female Student #2 stated, I had classes removed from my schedule "that I didn't like" and was able to "build a schedule to get in" the classes I wanted. Male Student #4 relayed the difference in transition time, as compared with his former school environment; "you aren't running from class to class. You actually have time to get from one side [of the campus or building] to the other."

Another way the school environment was flexible for students was through adapting school schedules to fit work schedules. Female Student #1 explained the flexible environment in relation to student employment, through the ability of MMC staff to "work with" students. She also described her own school and work conflict; "I worked

60 hours a week . . . I didn't need a lot of credits to graduate. They [staff at MMC] were willing to work with my work schedule 'cause they knew" that's what I needed.

Providing students with flexibility in their school environment allowed students to perceive more freedom and ultimately more engagement in school. Students indicated the flexibility provided them with an opportunity to explore classes, interests, and ultimately make decisions about their future. Additionally, permitting students time within their school day for personal appointments and extra time between classes, led students to be more likely to return to school and ultimately be more engaged in their school day.

Connections with staff. Students within the focus group described staff at MMC as more aware of student concerns, willing to bond with students, and demonstrated more initiative and responsiveness toward students, than in their former educational settings. Students more frequently described the staff's awareness of student needs and ability to bond with students. Secondarily, students discussed the staff's initiative toward student issues or concerns, and how staff responded to help students.

Staff of MMC were described by former students as demonstrating increased awareness and understanding toward students. Male Student #3 discussed how staff members of MMC were aware of individual student concerns; "Here if you can't find who you're looking for, someone else is available too." Female Student #1 commented on the increased understanding of staff toward her employment needs when she noted "[MMC staff] understand we have jobs we don't all have our parents paying for everything or able to have everything paid for." Female Student #2 commented on the increased understanding of MMC staff regarding her course schedule when she had

surgery, “When I was ready to come back [to school] they actually talked with me and asked what do you feel like you can do? What classes do you want to take?”.

Students of MMC indicated they were noticed by staff, and did not perceive themselves to be one of many students, like in their former school settings. Female Student #1 stated, “They [MMC staff] bond with us more.” and “They never judge.” Male Student #3 agreed, “I met him [a staff member] once and he remembered me.” Female Student #3 confirmed, “Every time I walk in, they know who I am.”

Students also indicated staff were not only aware of students, but also initiated conversations or responded to students’ questions or concerns. Female Student #1 appeared impressed by the initiative and treatment of staff toward students; “They know our actual potential. Even if we don’t, they do. They’ll push you. They never give up on you.” She also reported further on the initiative of staff toward consistent conversations with students; “they’re [MMC staff] are like, hey, is this still the plan? Is this still the goal? And they’ll sit there and listen to you.”

Students also reported on the responsiveness of staff, both in person and through technology. Female Student #2 compared MMC staff with her former school, with her statement; “When you bring a concern, they actually try to do something about it.” Male Student #1 contributed to the responsiveness of staff discussion; “They’ll [MMC staff] go out of their way to help you.” Female Student #2 also added students can utilize multiple methods of communication and gain a response; “You can also send an email, and they’ll respond.”

Relationships with teachers. More specifically, students discussed a perceived difference with teachers of MMC compared with their former high school teachers.

Overall, students reported differences in treatment, adaptability, initiative, and responsiveness. The qualities described by students were similar to the discussion of staff overall; however, students added concepts of treatment and adaptability when discussing MMC teachers.

Female Student #2 reported the difference in her MMC teachers compared with former teachers, was the difference in perception of treatment. She reported, "My teachers [at MMC] treat me like a college student." She further clarified her statement by adding an example; "They let us be individuals, as long as we get our work done." Female Student #2 and Male Student #2 additionally commented on the difference in treatment of students by teachers, through describing a difference in learning environment as well. Female Student #2 stated, teachers at MMC "don't get onto people who learn differently." Male Student #2 concurred, "Not everyone is the same. Everyone learns differently."

Male Student #2 also indicated MMC teachers elected to adapt their teaching styles to benefit students; MMC teachers "choose to know different ways to teach. They'll teach in the different ways, for all the people in the class." MMC teachers were also described as adaptive with students, regarding unique needs and commitments. Female Student #1 described a time she was called into work, and rather than "not getting credit" and "fail all my classes" like in her former school, teachers at MMC "still accepted it [assignments for credit]."

Students also perceived their MMC teachers as having more initiative and demonstrating more responsiveness to students. Male Student #3 stated, MMC teachers "look for a solution, rather than just looking at the problem." Female Student #1 added,

after a solution was found, teachers provided support by asking “Do you need help?”. Female Student #2 further qualified, once her teachers were aware of a concern, they “stayed up with me” and continued to have conversations about the concern with her. Male Student #4 perceived the initiative and responsiveness of MMC staff as a choice; “teachers [at MMC] want to do it [help students].”

Supportive counselor. Students of the focus group also perceived their school counselor as having more initiative, responsiveness, and providing more support for students, than in their former experiences. Female Student #1 commented on the counselors initiative to meet with students; “She makes sure she sees us . . . [rather than calling us to her office], she’ll walk through the hallways just to see people.” Female Student #3 commented on the frequency of encounters with the counselor of MMC in comparison of her previous high school; “I see her a lot, like way more times!” Female Student #3 commented on the helpfulness of MMC counselor, “She is a good resource.”

Friendships with peers. Students also described a difference in their relationship with their peers at MMC, than in their previous high school setting. Students reported a more mature relationship with their peers. Female Student #1 indicated she noticed “less drama” with her peers because “when you are around college students, there is so much less drama.” Female Student #1 also reported with fewer social interruptions, she was able to create a different kind of relationship with her peers, “friendships like you would never make in high school.” Female Student #3 concurred, “People that I wouldn’t have been introduced to [at my former high school], we became best friends [at MMC].” Female Student #3 equated the transition in friendships she experienced, to what other students may experience at a later time in their life; “It’s kind of what happens when you

leave high school for college. You figure out who your good friends are. But we figured it out earlier."

Relevance and rigor. Students also reported on a component of MMC wherein students were provided choices in class selection, experiences in practical learning, and rigorous curriculum. Within the areas of relevance and rigor, students most frequently discussed subject matter exploration. The rigor of the curriculum was also mentioned, along with practical experiences such as hands-on activities. These features of MMC program were noted by interview participants as an important benefit. Thus indicating students perceived exploration within class topics as a more important benefit of MMC, than the practical learning experiences, or rigor of the courses.

Exploration and classes. *S*tudents described how MMC helped them explore their interests and narrow their focus, which kept students on a successful path. Male Student #2 stated, "I didn't really know what I wanted to do, so they [MMC staff] gave me a bunch of classes to explore stuff I liked." Male Student #1 discussed a similar experience, MMC will "help you find out what you want to do and still get you the college credits."

Students further reported on how MMC allowed them to explore interests through various courses and flexibility in scheduling. Male Student #1 described how the staff at MMC adjusted his classes to fit his evolving interests; "If you're in something and don't want to do that anymore they'll fit you in something else." Female Student #3 agreed, "If you want a different class, then they'll [staff of MMC] try to get you in that class."

Practical experiences. Students who participated in MMC expressed the unique approaches to practical learning they experienced and the impact these experiences

provided on their learning. Male Student #1 stated, “The way classes are taught are a lot different . . . more hands-on.” Female Student #1 reported she experienced hand-on activities, like working directly with children, within her early childhood courses, “every Friday.” Male Student #3 commented on how hands-on activities benefited him; “Here at [MMC], within the first few days, I felt like I understood more.”

Rigorous pace. Focus group participants also discussed a perceived difference in curriculum rigor at MMC, compared with their prior educational experiences. Male Student #2 stated, “At [MMC] you have more advanced choices.” Female Student #2, who was absent a lot at her former high school, discovered the difference in rigor at MMC through a change in her attendance; “Missing one day would be a big deal ‘cause you’re actually learning a lot in each class.” Male Student #4 expanded on the experience of increased curriculum rigor and the negative impact on his grades; “When I transferred here, my stuff [grades] dropped because of the placement . . . It’s harder.”

Less is more. Overall, students within the focus group perceived less restrictions in their educational environment with more positive student outcomes. Overwhelmingly, MMC environment led most of the focus group participants to more engagement in school, as self-reported through improved attendance and grades. Additionally, students described the ease of transitioning to post-secondary college, after graduation from MMC. The result of attending post-secondary education came from exposing students to college schedules and environments, while students were pursuing their high school diplomas.

Outcomes and attendance. Students within the focus group reported varying results in discussing the impact of MMC on their attendance. Female Student #1 reported

the impact of MMC positively affected her attendance; “My attendance went up . . . lots of points higher!” Male Student #2 provided a reason why his attendance improved; “Here I wouldn’t miss classes . . . ‘cause they were classes that I actually got involved in, and [provided] knowledge outside of school, and its more disappointing to miss.”

Alternatively, one student reported a decline in her attendance. Even though she reported more engagement in MMC environment, the flexibility of the attendance policies and process allowed for her declined attendance. Female Student #3 perceived, “My attendance was way down from what it was at [former high school]. However, Female Student #3 demonstrated a decline in attendance, her ability to keep pace and be successful academically was stronger than her previous placement. Female Student #3 noted, MMC “is better for me because I feel like I don’t always have to be here. I have the freedom to do that [come and go from school].”

Outcomes and grades. Generally, students within the focus group reported improved grades, since participation in MMC. Male Student #1 confirmed the shared experience of the group; “My grades went like way up!” Female Student #3 also indicated the flexible attendance positively impacted her grades; “technically it’s [my attendance is] my decision because while my attendance has gone down, my grades have gone way up.” Female Student #2 reported a similar experience and ventured why she experienced the change in her grades; “It’s gone up [grades] because it’s [I’m learning about] what I like to do.”

Outcomes and college. Students of the focus group discussed the impact of MMC on their decisions to attend college. The common experience discussed by students within the focus group was continued enrollment at the target site community college,

after graduations from MMC. Male Student #2 stated, "I ended up transferring over to [target site community college] and all the classes that I took at [MMC] I got credit for [transferred]. Now, I'm going for a major in anthropology." Male Student #4 also transitioned to the target site community college, with a degree plan in mind; "I'm working toward political science." Female Student #1 was the only student to report she was not immediately transitioning to college at the target site; "I thought I wanted to go college right away. Now I'm like I don't have any motivation. I need to get my life intact before I go to college."

Futurism. Students of the focus group were aware of the impact of their current educational experiences on their future aspirations. Furthermore, students reported they were drawn to pursuing enrollment at MMC, due to the perceived benefits toward their futures. Students indicated MMC impacted their futures more positively, than their previous educational institutions. Former MMC students reported MMC provided them with more opportunities for college credits, internships and jobs, and scholarships.

Future goals. The opportunities provided by MMC supported the future goals of students. Female Student #2 indicated a perceived benefit of MMC on her plans; "I said what I wanted to do, and [MMC] got me thinking about where I want to go, and what I want to do." Female Student #3 replied she knew what she wanted to do, but viewed MMC as the only way to support her future goals and to start toward them while still in high school.

Students also reported the classes and college environment helped with decisions toward future goals and plans. Male Student #3 stated, "You have already taken a bunch of classes that are really hard, but it helped me to figure out what I wanted. I feel like

that's a benefit." Female Student #2 reported a similar experience; "It [the classes and environment] makes you feel like you're going somewhere." Male Student #4 agreed and added that MMC didn't require many classes which felt unaligned with future goals; "Extra courses? Who wants to do that?"

Future careers. Students of the focus group perceived more opportunities for interest related internships, than in their previous schools. Female Student #3 reported internship experiences through MMC assisted her with making career related decisions; "I couldn't figure out what I wanted. I had to find out what I was doing on my own, through internships." Female Student #2 knew her career path and earned internships related to her interests; internships through MMC allowed her to "work in the hospital."

Students indicated MMC also provided interest related job experiences as well. Male Student #2 perceived the job opportunities at MMC as a benefit; "I like that I got more of a job opportunity from being here." Male Student #2 also stated, "I got both of my jobs through [MMC]. I do the shipping and receiving and I do modeling through the drawing department [at the target site community college]."

Future scholarships. Another perceived positive benefit of MMC on future aspirations, was scholarship opportunities. Female Student #3 stated MMC provides their students with a lot of scholarships. Female Student #2 discussed how MMC assisted her with scholarship opportunities; my teacher "helped me . . . find the scholarship, and walked me through the application and forms." Female Student #3 added the scholarship opportunities were not just with the target site community college; "If you go to [another college within the target city], and you graduated from [MMC], you can get like $1,000 extra to go there."

Female Student #2 began discussing the A+ scholarship, a common scholarship within the target state, based primarily on student grades and attendance. Female Student #2 stated, "You have the opportunity to do A+ too [at MMC]. If we wanted that . . . we could make it work." However, Male Student #4 reported his experiences at his former high school attendance and grades impacted his opportunities for scholarships, even after enrollment at MMC. Male Student #4 stated, "If I had been at [MMC] since freshmen year . . . I would have made it. [I would have been eligible for A+ scholarships.]"

Quantitative. In order to analyze student academic progress, pre- and post-data, dropout rates, and subsequent college enrollment rates of MMC graduates, were needed for comparison. This information was obtained from MMC enrollment paperwork and transcripts, public statewide data available online, and through the research office of the target site. Thus, all data collected were from secondary sources (Fraenkel et al., 2012). All identifiable information was removed before inclusion in the study. Participant data were randomly assigned a participant number, in order to accurately track pre- and post-data of students, and for protection of participants and confidentiality reasons (Creswell, 2014; Fraenkel et al., 2012). The information provided was de-identified, collated, and entered into an Excel spreadsheet prior to submission of the information to the researcher and inclusion in the study (Creswell, 2014; Fraenkel et al., 2012).

Findings from research question 2. The second research question was: (*What differences exist, if any, between the average daily attendances rates of students prior to attending MMC and the average daily attendance rates of those same students after attending MMC*?). Research Question Two began the quantitative analysis section of the study. The daily attendance rate de-identified, secondary data were collected from MMC

records on student graduates of MMC and were used in statistical analyses. Because the research on daily attendance rates, focused on the same group of participants, before and after MMC intervention transpired, a within-subjects, *t*-test for correlated proportions was used (Bluman, 2014; Fraenkel et al., 2012). The *t*-test for this research question was considered two-tailed, as a significant difference in the results was hypothesized (Bluman, 2014). A combined total of 91 sets of pre- and post-data were included in the analysis.

In order to determine if daily attendance rate differences were significant, statistical analysis and hypothesis testing were conducted. According to Bluman (2014) a within-subjects, *t*-test for correlated proportions begins with a determination of the mean, prior to conducting an analysis of variance and before observations of sample size and degrees of freedom were decided. After sample size and degrees of freedom were established, the *t*-test was analyzed, and, finally the comparison of the *t*-test result with a *t*-test distribution table (Bluman, 2014).

The *t*-test distribution table was utilized in order to determine if the results were significant (Bluman, 2014). Bluman (2014) indicated the confidence interval at which to perform the statistical analysis was up to the discretion of the researcher; therefore, a confidence interval of 95 was selected for each quantitative statistical analysis. Before MMC intervention, daily attendance rates for participants had a mean of 88.49%, while graduates of MMC daily attendance rates reached a mean of 92.06%, indicating an increase of 3.65 percent. Subsequent results from the analysis are presented in Table 1.

Table 1

Average Daily Attendance t-Test Results

Variance (Pre)	Variance (Post)	*t*-Test	*t*-Distribution
189.35	38.71	.11	1.96

Note. $N = 91$

The analysis indicated the *t*-test conducted resulted in a difference of .11, however, the result was less than 1.96, or the number required to be significant as determined by the *t*-distribution table (Bluman, 2014). Therefore, the results of the analysis for Research Question Two, did not provide sufficient evidence to support the alternative hypothesis. Thus meaning, from the analyzed data, the null hypothesis was not rejected and no significant difference in pre- and post-daily attendance rates were found.

Findings from research question 3. The third research question was: (*What differences exist, if any, between high school students' GPA prior to attending MMC and high school GPA of those same students after attending MMC?*). De-identified, secondary data on students' GPA were collected from MMC records for graduates of MMC and were used in statistical analyses. Because the focus of the research question was GPA, and data were obtained for the same group of student participants, before and after a MMC intervention transpired, a within-subjects, *t*-test for correlated proportions occurred (Bluman, 2014; Fraenkel et al., 2012). Again, the *t*-test was considered two-tailed, as a significant difference in the results was hypothesized (Bluman, 2014). Also, no data were excluded; a combined total of 91 sets of data were included in analysis.

To understand if pre- and post-GPA differences were significant, statistical analysis and hypothesis testing were conducted. Before MMC intervention, GPA for

participants was a mean of 2.18, while GPA for graduates of MMC reached a mean of 2.40, indicating an increase of .22. Subsequent results from the analysis are presented in Table 2.

Table 2

GPA t-Test Results

Variance (Pre)	Variance (Post)	*t*-Test	*t*-Distribution
.53	.36	2.35	1.96

Note. $N = 91$

A confidence interval of 95 was selected for the quantitative statistical analysis. The *t*-test analysis indicated a difference of 2.35, which was a number more than 1.96, the number required to be significant as determined by the *t*-distribution table (Bluman, 2014). Therefore, the results of the analysis for Research Question Three, supported the expected alternative hypothesis and provided sufficient evidence to reject the null hypothesis; thus implicating student participants of MMC experienced a significant increase in GPA during the target years.

Findings from research question 4. The fourth research question was: (*What differences exist, if any, between MMC students' dropout rate and the average statewide high school dropout rate?*). Research Question Four included the third quantitative component of the study. The dropout rate de-identified, secondary data were collected from MMC records on student graduates of MMC and were used in statistical analyses. Information obtained from statewide dropout rate data was added by the researcher. Because these data sets compared dropout rates for different groups of students, a between-subjects *t*-test for independent proportions was used (Brewer & Kuhn, 2010;

Fraenkel et al., 2012). The *t*-test for this research question was considered two-tailed, as a significant difference in the results was hypothesized (Bluman, 2014). No data were excluded from analysis.

In order to determine if dropout rate differences were significant, statistical analysis and hypothesis testing were conducted. According to StatPac (2015) a within-subjects, *t*-test for independent proportions, or percent, begins with a determination of the mean, then standard deviation was found, and a confidence level of 95 was entered, before degrees of freedom were established (Bluman, 2014). Afterward, the combined standard error, and *t*-test was conducted. Finally, the comparison of the *t*-test statistic result with a *t*-test distribution table. The *t*-test distribution table can be used to compare the degrees of freedom within the analysis, the number of bell curve distribution tails, and the confidence interval, in order to determine if the results were significant (Bluman, 2014).

Participants of MMC demonstrated a dropout rate of 15% for the target 2011-2012 school year and 11% for 2012-2013 school year. According to Governing Data (2015) the target state student high school dropout rate in which MMC was located, was 16 % for the target 2011-2012 school year and 14% for 2012-2013 school year. The state-wide dropout rate data were obtained through comparison of graduates, with adjustments for transferring students, with ninth grade student populations (Governing Data, 2015). An important consideration to note is that the state-wide dropout rate data likely included dropout rate data from MMC, and had the potential to impact the comparison of data. Subsequent results from the analysis are presented in Table 3.

Table 3

Dropout Rate t-Test Results

Mean	Standard Deviation	Degrees of Freedom	*t*-Stat	*p*-Value
0.135	0.023	2.000	-0.747	0.532
0.150	0.014			

Note. $N = 91$

The analysis indicated the *t*-test conducted resulted in a difference 0.747 between MMC dropout rate and state-wide dropout rate data. The analysis indicated the *p*-value was greater than .05; therefore, sufficient evidence did not exist to reject the null hypothesis (StatPac, 2015). Therefore, the results of the analysis for Research Question Four, did not support the expected alternative hypothesis. Thus meaning, MMC dropout rate percentage was not significantly less than the target state dropout rate percentage.

Findings from research question 5. The fifth research question was: (*What difference exists, if any, between student graduates of MMC who continue their education at the target site community college and those who do not?*). Research Question Five included the final quantitative research question and the last research question of the study. De-identified, secondary data on students' subsequent enrollment at the target site community college were collected from the research office of the target site institution. For this research question on college enrollment rates, data were obtained for the same group of student participants; therefore, a within-subjects, *t*-test for correlated proportions occurred (Bluman, 2014; Fraenkel et al., 2012). The *t*-test was considered two-tailed, as a significant difference in the results was hypothesized (Bluman, 2014). No data were

excluded from this analysis as well; a combined total of 91 sets of data were included in analysis.

To understand if subsequent college enrollment rates at the target site were significant, statistical analysis and hypothesis testing were conducted. After MMC intervention, college enrollment rates at the target site included a mean of 63%, while graduates of MMC who did not continue at the target site reached a mean of 37, indicating the majority of students who participated in MMC continued college enrollment at the target site community college. However, the following statistical analysis was completed in order to compare those students who immediately enrolled at the target site institution, with those who did not complete a seamless transition. A confidence interval of 95 was selected for this quantitative statistical analysis as well. Subsequent results from the analysis are presented in Table 4.

Table 4

College Enrollment Rate t-Test Results

Mean	Standard Deviation	Degrees of Freedom	*t*-Stat	*p*-Value
28.50, 19.00	4.94, 7.07	2.000	1.55	0.25

Note. $N = 91$

The *t*-test analysis indicated a difference of 1.55, however, the result was less than the number required to be significant, 4.30, as determined by the *t*-distribution table (Bluman, 2014). Therefore, the results of the analysis for Research Question Five, did not provide sufficient evidence to reject the null hypothesis. Thus meaning, a significant difference did not exist for student graduates of MMC who transitioned immediately to the target site institution with those who did not pursue continued enrollment.

Summary

The study consisted of a mixed-methods design due to the combined benefits of qualitative and quantitative features (Creswell, 2014; Fraenkel et al., 2012). The study consisted of five research questions. The qualitative research question addressed student perceptions of MMC. Data were collected through a focus group with student graduates of MMC. The remaining four research questions included quantitative data gathered at the target site institution.

The respondent population consisted of student graduates from MMC, for both the qualitative and quantitative components. Students from the target years 2011- 2012 and 2012 – 2014 were included in the study. Within the target years, there were 91 total student completers. No selection or sampling procedure occurred, and no participants were excluded from the quantitative data (Creswell, 2014; Fraenkel et al., 2012). While no demographic information was obtained from the focus group participants, any overt characteristics from student participants appeared to align with the population demographics obtained for the quantitative data (Fraenkel et al., 2012).

The goal of the qualitative focus group was to obtain information on student perceptions of MMC (Creswell, 2014), to better understand if students experienced more academic success by attending MMC. Responses from students were also grouped into development of themes (Krueger & Casey, 2014). A qualitative sample size of seven participants included three female and four male participants (Creswell, 2014). Secondarily, the goal of the quantitative analysis was to determine if a statistically significant difference existed in four student areas; attendance, grade point average, dropout and retention rates.

Analysis of the qualitative research question revealed several student perceptions from the focus group participants. Students reported they felt students were unsuccessful in their traditional high schools, due to the lack of relationship with school personnel. Students stated they perceived their former school environments as rigid and staff as uncaring. Thus reportedly led some students to attend school less, earn grades lower than their capabilities, and demonstrate negative behaviors with school staff and peers.

However, after student participants experienced MMC, they were able to compare educational environments. Students indicated staff at MMC recognized students as individuals and were responsive to student needs. In regards to the difference in settings, students reported MMC allowed for more freedom, and a more mature and engaging environment. Students also discussed how they experienced more variety in learning options and perceived more benefits toward future education and employment at MMC in comparison with their former school environments. After participation in MMC, the majority of students reported they were more engaged in school, as evidenced by better attendance, grades, and behaviors in their relationships with staff and peers.

An analysis of the focus group transcripts revealed several developing themes; *Failure to Launch, Humanistic, Relevance and Rigor, Less is More, and Futurism*. Students reportedly experienced several failures in their former school environments, which prohibited them from experiencing educational success in their endeavors. Focus group participants revealed students experienced failures in their former school environments, in four main ways. Students experienced difficulty with the overall structure of their school environments, in the type of relationships they were exposed to

by staff and peers, in obtaining positive outcomes toward attendance, grades, and behaviors, and in conforming to educational environment available to them.

The analysis of developing themes also provided support for the importance of a humanistic component experienced by student participants of MMC. While students indicated they experienced disconnect in their former environments, they also described an overall difference in how they were treated after enrollment in MMC. Students stated MMC environment was more open, flexible, and individualized to fit student needs. Additionally, students reported they were treated with more acceptance, understanding, and awareness from staff and peers.

Another theme developed from the focus group participant discussion was the student perception of increased relevance and rigor within MMC. Statements from students eluded to more advanced options in curriculum, including college classes. Students also discussed more opportunities for variety in their learning, including more choices in class options and practical activities. Overall, students felt they had more options to explore their interests. Some students reported a decreased GPA but improved attendance, when discussing this category, due to the increased rigor they experienced at MMC.

Statements obtained from students also eluded to a less is more relationship. Meaning, students perceived an educational environment with less restrictions on students was met with improved engagement in school. Students further detailed how their improved engagement was evidenced by attendance, grades, and behaviors. Additionally, exposure to the college-like environment of MMC, influenced student decision on continuing enrollment in college after high school graduation.

The last developmental theme, consisted of student perceptions of the impact their school environments on future aspirations. The futurism theme, related to student goals, college credits, potential interest-related internships and careers, and assistance with college applications and scholarship options. Students perceived MMC as a positive benefit in each of the areas they discussed, and described their previous settings as lacking in these areas. Thus, awareness of the relationship between current educational environments and future impact, led students to apply for participation in MMC.

The data for the quantitative analysis component were obtained through secondary sources and de-identified prior to use in the study. The remaining four research questions for the study, surrounded student components including attendance, grade point average, dropout, and retention rates in subsequent college enrollment. A confidence interval of 95 was selected for each analysis and no data were withheld from analysis (Bluman, 2014). The results from the statistical analyses varied in methods used and in outcomes obtained.

The research question tied to pre- and post-attendance, with MMC as the intervention, was analyzed through a within-subjects, *t*-test for correlated proportions (Bluman, 2014; Fraenkel et al., 2012). While a significant difference was expected, the difference in attendance rates after enrollment at MMC, were found to not be statistically significant. Therefore, the analyzed data obtained for Research Question Two did not reject the null hypothesis since there was not a significant difference between pre- and post-attendance rates.

The research question tied to pre- and post-GPA, with MMC as the intervention, was also analyzed through a within-subjects, *t*-test for correlated proportions (Bluman,

2014; Fraenkel et al., 2012). Again, a significant difference in GPA was expected after enrollment at MMC. For the research question, a significant difference was found from the data analysis. Meaning, the analyzed data obtained for Research Question Three provided enough evidence to reject the null hypothesis and support the alternative hypothesis; a significant difference existed between pre- and post-GPA rates for student participants of MMC.

Research Question Four compared dropout rates of student participants from MMC with state-wide dropout rates. The dropout rate data were analyzed through a between-subjects, *t*-test for independent proportions (Bluman, 2014; Fraenkel et al., 2012). A significant difference was expected prior to data collection. Consequently, the analyzed data obtained on dropout rates led to the decision to not reject the null hypothesis. Meaning, student participants of MMC did not experience a dropout rate significantly less than the dropout rate experienced by students state-wide.

Subsequent college enrollment rates was the topic of the last quantitative research question, and the last research question of the study. Research Question Five, consisted of the collection of data on former student participants from MMC, within the targeted years, and their subsequent college enrollment rates at the target site institution. College enrollment rate data were analyzed through a within-subjects, *t*-test for correlated proportions (Bluman, 2014; Fraenkel et al., 2012). Subsequent enrollment rates at the target site institution reached 63%, indicating the majority of students who participated in MMC continued college enrollment at the target site community college. However, a statistical analysis was completed in order to compare student graduates of MMC; students who immediately transition with those who did not continue enrollment. A

significant difference was expected and unsuccessfully found after the statistical analysis. Therefore, the analyzed data obtained for Research Question Five did not reject the null hypothesis of no significant difference.

In Chapter Five, findings from conclusions obtained from the data, with supplemental information from relevant research and literature are included. Chapter Five discusses the implications of the study, in practical terms, and includes suggestions for transition programs or community colleges interested in improving student high school graduation and transition to college rates. The final chapter discusses recommendations for future research in the areas related to the middle college concept. Specifically, these recommendations are focused on methods for adaption to the design of the research study.

Chapter Five: Summary and Conclusions

The term MMC refers to one middle college located in the Midwest, the only target site involved in the study. Generally, middle colleges are secondary schools, typically located on college campuses within the nation (Lieberman, 2004). Middle college is a unique program built upon a partnership between high schools and colleges, wherein students experience a blend of the two environments (Education Trust, 2015). Middle colleges tend to provide a more rigorous academic curriculum, with more supports, to student populations typically classified as at-risk (MCNC, 2014a).

In the middle college educational environment, students obtain practical experiences and are likely to successfully transition from high school to college (Institute of Education Sciences, 2009; Lieberman, 2004). Middle colleges are small in their student population size, and the number of programs in existence nationally are minimal (MCNC, 2014b). The middle college in this study, MMC, has maintained the original goals of middle colleges through educational and emotional support typically not found in traditional high school settings (Jennings et al., 2007).

One concern related to the research topic eludes to the fact that research on programs like MMC, are lacking (Karp, 2012; NCES, 2014a.). The scarcity of research is an interesting dynamic considering students report interest in educational environments more aligned with college or career interests (Choy, 2001). An additionally interesting factor to consider is students are interested in more demanding environments, despite national data indicating students experience failures in high school or in the ability to transition into college environments (NCES, 2014a; NCES, 2014b). Furthermore, despite the dearth amount of research available, evidence exists that

students who participate in MMC type programs generally posit positive outcomes for themselves, their schools, and communities (Grusky et al., 2013; Karp, 2012; Kuh et al., 2011). Many educational foundations support transition programs, due to the positives outcomes (Bill and Melinda Gates Foundation, 2009; Lumina Foundation, 2014).

The study consisted of several purposes. Part of the purpose was to describe the design of the middle college concept, due to the uniqueness of these programs overall (Krueger & Casey, 2014; Lieberman, 2004). An added capacity was to review the actions taken by program personnel in order to promote student success in educational settings. Another role of the study was to examine MMC as an educational alternative to the traditional school environment. However, the primary purpose was to create an analysis of MMC, by evaluating its impact on student participants and methods to support student in high school and toward post-secondary education.

In this chapter a summary of findings from the study will be reported in sequence of the research questions. A discussion of the conclusions that can be drawn from the findings, with additional support from the literature review will follow. The last part of the chapter consists of concrete suggestions for undertaking any concerns raised in the research, along with any recommendations for future research found within the study.

Findings

The purpose of the study was to examine the overall middle college concept, and to assess one program's impact on student participants. The two main goals of the study were to garner student perceptions along with secondary data in order to determine the challenges students who attend MMC encounter along with their successful outcomes. The mixed-method case study consisted of five research questions. For the qualitative

component, a focus group with former MMC students was conducted. For the quantitative aspect of the study, a four-part data analysis of student information obtained from student records and statewide data information occurred.

For the qualitative focus group, student statements from former MMC participants provided descriptive information of student attitudes, perceptions, and thoughts on future preparedness. The qualitative sample size of seven focus group participants, included three female and four male participants. Student statements were reported in alignment with focus group questions and grouped into themes in order to provide additional information on qualities of MMC programing in support of student transition from high school to college.

Findings from research question 1. Research Question One, (*In what ways does participation in MMC affect students' attitudes toward school and preparedness for post-secondary education or workforce entry, as reported by student participants?*), was addressed by eight focus group questions. The following section provides a summary of the responses garnered.

The majority of respondents statements to Focus Group Question One, *Why do you think so many students are unsuccessful in high school?*, implied a lack of relationship with teachers and school personnel in the traditional school setting led to a lack of success from students. Students further specified the perception traditional school teachers are inadequate in their content and teaching knowledge and their ability to have empathy for students. Alternatively, students stated they experienced recognition of their individuality and responsiveness to student concerns from school personnel at MMC.

Focus Group Question Two was: *Why do you think some students say they are better at school while at Middle College, than at their previous school?* Common responses from students included a lack of engagement and freedom in their former school settings. The lack of engagement and perceived limited freedom lead to an increase in attendance issues and lower GPAs for some students. Students perceived more freedom within MMC environment and were therefore, according to their reports more engaged in academic pursuits. Students also reported the outcomes of their increased engagement was indicative of success by an increase in GPA for some students. Some respondents reported a lower GPA due to the increased level of rigor at MMC but still maintained they were successful.

Three consistent topics were discussed by students in response to Focus Group Question Three: *What unique experiences did you get to be a part of because of Middle College?* Uniqueness of courses and instruction, differences in learning environments, and benefits to future endeavors were the common answers when participants were asked this question. Limitations in course availability and variety of instruction encountered in the focus group participants' previous school environments were noted as a deficit. Comparatively, students reported at MMC more options in course topics, more advanced options like college classes, and adaption of instruction to include multiple learning styles and differing student interests were presented. Also, students perceived MMC to have a more positive impact on their futures, with opportunities for college credits, internships, jobs, and scholarships, than in their former schools.

Statements from students in response to Focus Group Question Four, *How does Middle College help students, for example with school or personal issues, that doesn't*

happen at other schools?, described a perception of a difference in culture between their previous schools placements and MMC. Interviewees stated they had experienced unhelpful staff who didn't know who they were in their previous schools. Participants indicated staff of MMC were more responsive, aware, and willing to bond with students.

Discussion of Focus Group Question Five, *Describe how Middle Colleges "felt" compared to the other schools you attended*, produced a consensus on topics of acceptance and connectedness to school environments. Students indicated their former environments produced feelings of exclusiveness while MMC felt inclusive. While at MMC, students perceived a more open environment, they worried less about outward appearances, and experienced better friendships.

Expression of student statements to Focus Group Question Six, *How is Middle College more flexible than other schools you have attended?*, included rigidity in overall school environment in their former educational settings. Students reported their perception in previous settings wherein staff treated students with distrust, including strict check-in and check-out procedures and questioning students about their whereabouts, which led students to feel harassed. In regards to MMC, students stated the environment felt more flexible and they perceived staff as more understanding of unique students concerns and needs.

Focus Group Question Seven, *How did Middle College help you get ready for future?* was presented to the group participants. Student responses regarding their previous education indicated students perceived preparations for the future as untimely and lacking perspective. However, when discussion turned to MMC, students reported a variety of opportunities to explore future options. Students reported options to explore of

interest-related courses and internships, while earning high school and college credits, assistance with college applications and scholarships, and frequent discussions with staff about their plans.

Participants of the focus group made no response to the last focus group question. Focus Group Question Eight was: *What questions have I not asked that would be important to know?* Therefore, the focus group session was concluded. Due to the lack of student responses to this question, no discussion occurred and no summary of themes will be discussed.

Findings from analysis of developing themes. The second component of the qualitative research question was to develop themes from student statements. The following is a summary of themes which were developed from the discussion of focus group participants.

Prior to attending MMC, students reportedly experienced a variety of failures in their former educational settings. The disappointments expressed by students led to a major developmental theme of a *failure to launch* category. Within this theme, students discussed perceptions of their inability to obtain success in their previous school environments, in their relationships with school staff and peers, and in reaching positive educational outcomes and conformity to expectations.

A *failure to connect* to the environment was the first subcategory developed. In this area, students expressed negative views of their traditional school environments with reports of an authoritarian atmosphere, confinement within the school via locked doors in buildings, being questioned in the hallways, and being escorted or chaperoned by school personnel. Students also reported relief when they had an excuse to leave school or not

attend altogether. Meaning, students' perceptions of school impacted their engagement in the school setting and attendance.

Another sub theme developed from student statements was an overall *failure to establish relationships* in their former school settings. Students discussed difficulty connecting to school personnel and peers. Students also discussed the displacement of their lack of connection with others on their behaviors and conflicts at school. Primarily, students discussed their teachers, and recalled some teachers were not passionate about learning or able to demonstrate empathy for the students they encountered in general. Students also mentioned their former school counselors as being unreachable and lacking tact in their conversations with students.

Additionally, students from the focus group indicated difficulties connecting in regards to their former peers. Students reported their peers in their former school environments were exclusive and maintained cliques in social aspects. Students also observed the limitations of the exclusive groups on meeting new people. Some students indicated the lack of connection they experienced led them to demonstrate negative behaviors and conflict toward other peers, which impacted their attendance, grades, and decisions to remain enrolled in school as well.

Perhaps due to the lack of connection with school environment, school personnel and peers, students reportedly exhibited some *failure to obtain desirable outcomes*. Per focus group discussion, student attendance was the most impacted, followed by grades. However, others reported acceptable grades, due to a perceived lack of rigor, but also an indication emerged that the content was not relevant to their goals, or they were simply

regurgitating material in order to earn grades. Many of the focus group participants agreed their former environments negatively impacted their overall learning.

Students from the focus group also discussed a *failure to conform* to the previous environments described. Because students reported dissatisfaction with their former environments and experienced an inability to find desired educational success, students ultimately began seeking new opportunities. Students began reaching a new awareness about their environments and lack of alignment with student success and future educational goals. Proactive qualities began to emerge and acknowledgement of other educational avenues, better suited to student interests and goals, led students to apply to MMC.

Alternatively, after attending MMC, students reportedly experienced a variety of positive aspects in their new educational setting. The new experiences expressed led to a second major developmental theme of a *humanistic* nature. Within this theme, students compared and contrasted both their old and new educational experiences. Students also discussed perceptions of accepting atmospheres, flexible environments, and connections with school personnel and peers, in their new educational environment at MMC.

Students discussed the overwhelming differences in school environments, when discussing their former schools and MMC. Students reported feeling judged in their former environments, however, at MMC students indicated they experienced more of an *accepting atmosphere* for their appearance and actions. Furthermore, students perceived MMC with a more open and accepting environment, with more flexibly. Thus, students reported more positive experiences with others and purported to obtain more success in educational endeavors.

Another difference noticed by focus group participants was the students' perceived difference in how they were treated. Students indicated at MMC, they felt they were treated more fairly and equally amongst their peers from school personnel. Students also discussed their treatment at MMC held elements of acceptance, trust, and generally students were treated like other college students.

Freedom, individualization, and *flexible environment* were also major topics within this theme, as students discussed their class schedules, course selections, and opportunities to explore classes and internships. Students' perceptions of their new environment led students to be more engaged in school. Additionally, by permitting students time within the school day for personal appointments along with time between classes, led students to report they were more likely to return to school. Students reported the flexibility, freedom, and individualization provided, allowed students to reach new educational potential and make better decisions about their future.

Students reported differences in their relationships with others as well. In regard to MMC staff overall, students indicated staff were more aware, responsive, and demonstrated more initiative toward student concerns. Students also reported staff approached discussions with more understanding and support, and were able to bond with students.

More specifically toward teachers, students discussed how their MMC teachers were passionate about learning, provided variety in instructional methods, and adapted to student needs. Students also commented on a perceived difference with their school counselor. Students described the school counselor at MMC as one who provided more support, sought out students potentially in need, and was frequently available to students.

Students who participated in the focus group also discussed the differences in their relationships with their peers, since enrollment at MMC. Students indicated maturity in their relationships with their peers and less conflict than in their former educational environments. Students reported meaningful relationships with their peers, and more inclusion which provided them with more opportunities to meet new people.

The next major category discussed by focus group participants was the *relevance and rigor* experienced at MMC. Within this category, students once again discussed their traditional school environments with lack of alignment in student interests and future goals. Students indicated at MMC, they were allowed choices in class selection, opportunities for practical learning, exploration, and experienced a more rigorous curriculum overall. Students discussed the opportunities provided students with a chance to decipher their interests and focus on a successful educational path. Furthermore, some students reported their attendance improved, while their grades declined, due to the accelerated or more in-depth learning experienced at MMC.

Another major category revealed during this study was students who participated in MMC, believed in a *less is more* outlook to education. Meaning, students felt despite increased rigor, a less restrictive environment produced more positive results from students. Students perceived freedom and flexibility in school and class content as well as practical experiences tied to their future goals. The students in the study perceived they were more engaged in their learning. Students also reported after exposure to the college environment while at MMC, they were not only more likely to transition to post-secondary college enrollment but had narrowed their focus toward specific degree programs.

However, some students did report some variety in their engagement evidenced by attendance and grades outcomes during enrollment at MMC. The overwhelming majority of students reported their engagement at MMC was evidenced by positive influence on attendance and grades. Alternatively, a few students experienced the opposite effect, with a decline in attendance and grades, despite increased engagement in school. Students further explored the possibilities for decreased attendance and grades, and discussed the freedom and flexibility of MMC as a potential reason for students' attendance and grade decline.

The last developmental theme was *futurism*, and consisted of focus group participant's awareness and perception of their high school educational experiences on their future. Initially, students were drawn to apply to MMC due to the perception of increased benefits toward future aspirations. Students expressed enrollment at MMC allowed opportunities for interest-related course exploration, curriculum variety including hands-on experiences, college credits, internships and jobs, and scholarships. Students indicated the benefits they perceived with MMC far outweighed the perception of benefits in their former educational settings.

Findings from research question 2. Research Question Two begins the quantitative portion of the mixed method study. The quantitative portion of the study, consisted of an analysis of student academic progress, through pre- and post-data, dropout rates, and subsequent college enrollment rates, on student graduates of MMC. All data collected were from de-identified, secondary sources, including MMC enrollment paperwork, transcripts, public state-wide data, and the research office at the target site.

The second research question, (*What differences exist, if any, between the average daily attendances rates of students prior to attending MMC and the average daily attendance rates of those same students after attending MMC?*), was based on daily attendance rates, from the same group of student participants, before and after enrollment at MMC. A within-subjects, *t*-test for correlated proportions was utilized (Bluman, 2014; Fraenkel et al., 2012). The statistical analysis was considered two-tailed, as a significant difference in the results was hypothesized (Bluman, 2014). No data was excluded, and the analysis revealed a difference less than the significant difference required by the *t*-test distribution table. Therefore, the analyzed data from Research Question Two did not reject the null hypothesis of no significant difference in daily attendance rates, pre- and post-student enrollment at MMC, within the target years.

Findings from research question 3. The third research question, (*What differences exist, if any, between high school students' GPA prior to attending MMC and high school GPA of those same students after attending MMC?*). De-identified, secondary data on MMC student participant's GPA were collected and used for statistical analysis. A within-subjects, *t*-test for correlated proportions was utilized as data were obtained for the same group of student participants, before and after a MMC intervention transpired (Bluman, 2014; Fraenkel et al., 2012). Again, the *t*-test was considered two-tailed, as a significant difference in the results was hypothesized (Bluman, 2014) again, no data were excluded. The data analysis indicated the results for Research Question Three supported the expected alternative hypothesis; therefore, students experienced a significant increase in GPA after exposure to MMC when compared to the *t*-test distribution table (Bluman, 2014).

Findings from research question 4. The fourth research question, (*What differences exist, if any, between MMC students' dropout rate and the average statewide high school dropout rate?*). The dropout rate de-identified secondary data were collected from MMC student graduates records and information obtained from statewide dropout rate data were added by the researcher. Because these data sets compared dropout rates for different groups of students, a between-subjects *t*-test for independent proportions was used (Brewer & Kuhn, 2010; Fraenkel et al., 2012). The *t*-test conducted was considered two-tailed, as a significant difference in the results was hypothesized (Bluman, 2014) and no data were excluded. While the state-wide dropout rate data likely included dropout rate data from MMC, and had the potential to impact the comparison, the differences were expected to be minimal. The *t*-test analysis indicated a drop-out rate difference of .747 between MMC dropout rate and state-wide dropout rate data. This result was less than the number required to be significant, as determined by the *t*-distribution table (Bluman, 2014). Therefore, the results of the analysis for Research Question Four, did not provide sufficient evidence to reject the null hypothesis. No difference existed in dropout rate data between student participants of MMC and state-wide data.

Findings from research question 5. The fifth research question, (*What difference exists, if any, between student graduates of MMC who continue their education at the target site community college and those who do not?*) was the last quantitative and the last research question of the study. Research Question Five utilized de-identified, secondary data from former MMC students to analyze subsequent college enrollment at the target site community college. Data were obtained for the same group of student participants; therefore, a within-subjects, *t*-test for correlated proportions occurred

(Bluman, 2014; Fraenkel et al., 2012). The test was considered two-tailed, as a significant difference in the results was hypothesized (Bluman, 2014). No data were excluded from this analysis. The *t*-test analysis indicated a result less than the number required to be significant by the *t*-distribution table (Bluman, 2014). Therefore, the results of the analysis for Research Question Five, did not provide sufficient evidence to reject the null hypothesis or support the expected alternative hypothesis. The resulting implication of no significant difference in the number of students who immediately transition to the target site community college, with those who did not continue enrollment.

Conclusions

Overall, the mixed-methods research design utilized in the study, allowed for a variety of outcomes (Fraenkel et al., 2012). However, the ensuing conclusions can only exist under the variables of the study conducted; any correlations or predictions toward other studies could not be drawn from the data (Brewer & Kuhn, 2010). The findings are unique to the case study site, participants, and target years (Brewer & Kuhn, 2010). Despite the limitations to generalize these results, several outcomes of the study existed.

Research Question 1. Analysis from the findings of Research Question One, the only qualitative research question, produced results in alignment with the expected outcomes of the study and review of literature. The only unexpected results were in the amount of information gleaned from student statements and the comparison of students' former school environments with MMC. Students were able to describe their experiences in great detail, with examples of how school environments differentiated. Furthermore, students identified how their educational setting impacted their own personal outcomes.

Students reported that while they struggled in their former school environments, they felt better able to persist through school at MMC. Students' newfound abilities to persist were likely due to their perception of improved school climate (Christianson et al., 2012), more support and positive relationships with others (Barnett, 2011; de Boer et al., 2010; Lane et al., 2010), and flexible schedules (Lieberman, 2004; MCNC, 2014b). The overwhelming majority of students reported improved academic success, in a program which emphasized curriculum rigor (Struhl & Vargas, 2012) and practical skill development (Carnevale, Rose et al., 2011). Students also reported an outcome of participation in MMC was better opportunities for employment (Grusky et al., 2013).

Unsurprisingly, the analysis of findings for Research Question One allows for several meaningful conclusions to be drawn (Krueger & Casey, 2014). Statements made by students support the intended purpose of the following research questions. Students from the focus group revealed they felt very strongly about the importance of transitions programs like MMC. Students reported they experienced a positive environment, better suited to their unique needs, which served as a catalyst toward improved academic success.

Research Question 2. The conclusions from Research Question Two, focused on pre- and post-attendance rates, presented conflicting results. The results did not support the statements made by the focus group participants, nor were the results congruent with the research from the literature. Many of the focus group participants made statements about their attendance improving, while enrolled at MMC. Alternatively, some students reported decreased attendance rates, due to the flexibility of school attendance policies at

MMC. However, while the data indicated improved attendance rates, the statistical analysis indicated the results were not significant.

The review of literature provided support for the student statements, but did not align with the results from the statistical analysis. Most of the research characterized increased improvements in student attendance levels, after enrollment in a transition program. Indeed, Lieberman (2004) reported student participants of transition programs, like MMC, experienced more engagement in school, with more emotional supports, which likely improved attendance after enrollment. Additionally, the practical skill development, which led to internships and employment, likely reduced financial barriers and allowed students with more opportunities to attend school (MCNC, 2014a; Program Description, 2015).

The incongruent findings from Research Question Two could have occurred for a few reasons. First, significant improvement in attendance was not needed in order for students to demonstrate academic growth and experience increased engagement in school. Next, the study was unique to the specific site, participants, and timeframe (Brewer & Kuhn, 2010). Therefore, conflicting results for student attendance, pre- and post-MMC intervention, might have occurred due to the uniqueness of the site (Brewer & Kuhn, 2010). Or, the utilization of the same site, but with different or more target years, and different or more participants, may yield results more aligned with student statements and literature.

Research Question 3. The findings from Research Question Three, the second quantitative analysis, revealed the only statistically significant results from the study. The analysis indicated student participants of MMC, experienced significantly improved

pre- and post-GPA after MMC intervention within the target years. The results from the GPA analysis appeared consistent with student statements from the focus group. However, the results from the study were not consistent with the review of literature.

The research on the relationship between transition programs and student GPA, provided mixed results. Swanson (2008) reported an added benefit for participants in transition programs was the likelihood students earned higher grade point averages than their high school peers. However, research conducted by Coleman (2011) found student participants from transition programs, wherein college was an emphasis, experienced decreased likelihood of obtaining a GPA higher than 3.0, when compared to peers with similar backgrounds. Therefore, the results from the study provided additional support for significantly increased GPA, for student participants.

Research Question 4. The findings from Research Question Four, consisted of the comparison of dropout rates of student participants of MMC and statewide dropout rate data. The results from the statistical analysis provided evidence to not reject the null hypothesis of no significant difference. Interestingly, student statements from the focus group did not support the results of the research question. Students from the focus group indicated they experienced more desire to dropout in their former school settings, and reported more engagement in their school settings after enrollment with MMC. Student statements from the focus group, were more consistent with the known research, than with the results from the statistical analysis.

Furthermore, the research on dropout rates from the review of literature, indicated significant differences for students who continued enrollment in a transition program, when compared with students who continued in traditional school environments (Barnett,

2011; Jennings et al., 2007; NCES, 2014a; NCES, 2014b). Moreover, due to students increased exposure to individualized interests and choice in class scheduling, prominent practices at MMC, students were more likely to continue with enrollment (Institute of Education Sciences, 2009). Additionally, some of the studies emphasized student characteristics linked with dropout prevention; for example, Perkins-Gough (2013) reported student qualities related to grit were better predictors of success over other standardized academic achievement measures.

Perhaps the data on student dropout rates from the study were inconsistent with the literature review, due to the uniqueness of the site and target years used. In the study conducted, students considered at-risk of dropping out of their traditional school environment, dropped out of MMC at a rate similar to state-wide data. Therefore, students considered more at-risk of dropout were placed in an environment that allowed them opportunities to decrease their dropout risk.

Research Question 5. Lastly, the findings from Research Question Five, produced surprising results. While student graduates of MMC had an overall transition rate of 64% continued enrollment at the target community college site, the amount of students who immediately transitioned from MMC to post-secondary enrollment was not found to be significant. Support for the amount of students who continued enrollment at the target site, but not for the lack of significance, was found in the statements from the focus group participants. All but one of the students from the focus group indicated they continued college enrollment at the target site community college.

Furthermore, the results found in the study were not consistent with the research from the literature review. The literature review indicated students in transition

programs, continued subsequent college enrollment at a greater rate; students who participated in college coursework while still in high school fared better in college after high school graduation than those who did not participate (Barnett, 2011) perhaps due to a better understanding of college expectations, and therefore were more likely to continue college enrollment and were likely to be successful in subsequent coursework (Struhl & Vargas, 2012).

Implications for Practice

Learning environments for high school age students has evolved from a practice of little education, through various practices of what should be emphasized including practical education to a time of rigid expectations for all students (Dee & Jacob, 2011; Fox, 2011). Evidence continued to indicate students experienced a lack of success in school and toward future goals, despite student interest in more rigorous environments related to their individual interests (Teachers College, Columbia University, 2014). Some of the unique programs in existence today, were built upon a partnership between high schools and colleges, and are able to blend the two environments for students (Education Trust, 2015). The partnership between high schools and colleges provided many benefits for some student participants (Barnett & Hughes, 2010; Cassidy, et al., n.d.; NCES, 2014a.).

A student's lack of success in high school and inability to transition into a college environment, continues to be a national problem (Choy, 2001; NCES, 2014a; NCES, 2014b). A student's lack of success, as evidenced by factors such as attendance and grades, also continues to be a problem in the amount of research available on the topic (Barnett, 2010). Ideally more research would produce more evidence of the known pros

and cons of transition programs on student participants. In order to achieve this ideal, more programs are needed to help students through their educational journey, or, at minimum, the adaption of some of the qualities from transition programs in more traditional school environments.

Flexible environment. The findings from the study support the suggestions in the literature review made by Astin (1997), Barnett (2010, 2011), and Kuh et al., (2011). The research from these aforementioned studies indicated some students experience more engagement in their school settings, as evidenced by increased success with attendance, grades, and transitional success, when certain factors are present. These factors tie to engagement with students could include school-wide change necessary for big picture concerns like school environments and the overall treatment of the students enrolled.

The results from the study suggest that schools adapt more flexibility in their school settings. Evidence from the statements of focus group participants supports when students perceive an educational environment as one with more freedom, students behave in ways that demonstrate more interested in school. Providing students with more choice in their educational pursuits, including subject areas and the manner in which students learned the material, made a positive impact on students' educational endeavors as well.

Furthermore, even when school educational policies allow for more adaptability in scheduling, attendance rates may remain static, but students earned improved grades at a significant rate. Additionally, providing students with more time for outside appointments, time between classes, and changing class schedules to fit around work or other outside obligations, allowed students the opportunities to be more present in school

and a stronger desire to return to school, than in their former school environments, as evidenced by student statements.

The findings from the study support the removal of rigidity in school environments, such as strict attendance policies. Additionally, the study provided evidence for the elimination of minimal subjects to study for students and little variety in instruction method. Thus meaning, any measures taken to provide students with elasticity in their school environment, and support students' perceptions of a more flexible school environment, lead students to want to be at school more and earn improved grades at a significant rate.

Humanistic treatment. Keeping in tune with the 'one size does not fit all' mentality, an additional implication for practice would be to increase school customer service for students. Students from the focus group claimed a lack of awareness, responsiveness, and ability to bond with students, in their former school settings. However, after enrollment at MMC, students perceived school staff and peers as caring and accepting of students' individuality, responsive and aware of student needs, and proactive in their approach to meeting with students to assist with narrowing of future plans. Students perceived their new environment as more positive, and referenced changes in their personal desires to attend school, a reduction counterproductive behaviors, and better identification and progress toward future goals.

Therefore, results of the study supported the concept of eliminating the treatment of students with disinterest and disconnect. Furthermore, findings from the study suggest school personnel should emphasize treating students with openness and understanding toward their individual needs and identities; students reported the treatment described in

MMC, made a positive impact on students' perceptions of their school environments and relationships with staff and peers. Thus, more schools or programs should adopt similar methods of student treatment, as evidenced by the study, for improved student satisfaction, self-esteem, and educational success.

Recommendations for Future Research

As the study was unique in topic and scope, one purpose of the study was to lay the foundation and provide additional support for the implementation of future transitional programs, like MMC. The lack of existing research on transition programs like middle colleges, and evidence of few schools in existence nationally, provided further support for the intended purpose of the study (Adelman, 2006; Jobs for the Future, 2015; Rodríguez et al, 2012). From the review of literature and the study conducted, several opportunities for adaption of the study toward supplementation of future research were revealed. The next paragraphs provide an overview of the possibilities. Also included is the rationale for why these potential avenues for future research are important.

Impact on consortium schools. One research topic to suggest is the impact of programs like MMC on their consortium sending schools. Because the research on middle colleges overall was lacking (Adelman, 2006; Rodríguez et al, 2012), the impact of schools like MMC on their sending schools was an area of particular deficit. Another avenue to explore, which unfortunately was a barrier in the study, related to accessing data from consortium schools through which MMC partnered. However, if the data from sending schools were obtainable, several different studies could stem from the one conducted. One suggestion would be, if other student factors could be accounted for, would similar students as those who participated in a particular transition program,

experience the same results with attendance, GPA, dropout rates, and subsequent college enrollment rates, as experienced by student participants of the transition program. If significant disparities existed in the data, the existence of additional support for transition programs may help serve as a catalyst in development of similar programs for students.

Better measures of engagement. After reviewing the research, and the study conducted, another suggestion for future research existed as well. An additional recommendation would be to place less emphasis on attendance and continued enrollment at specific site, and more emphasis on an exploration of students' engagement in the college atmosphere. For example, if students were able to demonstrate better grades in college, earn more college credits overall, and work toward a career or degree of their own interest, those factors could be more indicative of student success than attendance and ability to transition to one specific site. Overall, analyzing characteristics of students' engagement in transition programs would provide better evidence, in ways more indicative of success in college or careers.

More emphasis on college. Additionally lacking in the research was how well students completed their college courses, compared to their high school classes. An interesting topic of study would be the amount of college credits earned in transition programs by students referred to as at-risk in their former high schools. Students from the focus group reported improved grade point averages, after enrollment at MMC. The statistical analysis indicated GPAs for student participants of MMC improved significantly. However, students indicated their GPA performance improved in comparison of high school GPA to college GPA, as well. While student high school GPA and college GPA, after a transition program intervention, could not be equally

compared (Fraenkel et al., 2012), the data might yield some interesting results. If further research supports the claims made by students, this would further support the need for more transition programs, which provide students with additional rigor and practical training for their future endeavors.

Summary

As noted in Chapter One, while many high school students reported a high interest in college, a large portion of students were not able to successfully transition from high school to college (Choy, 2001; NCES, 2014a; NCES, 2014b). The concerns with transition, led some researchers to identify potential barriers students encountered during their transition to college (Achieve, 2012; Barnett, 2010). The barriers students encountered included a lack of academic rigor, which lead to unpreparedness and mistaken expectations for college, lack of curriculum alignment and overall partnerships between high schools and colleges, plus a lack of knowledge of how to gain access to money for college (Achieve, 2012; Barnett, 2010).

Also noted in Chapter One, the increased awareness of the barriers students experienced, along with research by theorists Adelman, Tinto, Barnett, and Astin, led to the development of programs to assist students in their transition to college (Adelman, 2006; Bailey et al., 2011). Transition programs primarily focus on improving access to college, providing student support in their transition to college, allowing students to experience a blend of high school and college coursework and environments, and offer college credit for free or a reduced cost (Rodríguez et al., 2012).

Middle colleges, a unique type of transition program, often offer a two-year experience in which student participants can participate in high school and college

courses, while attending school on a college campus (MCNC, 2014b). Middle college programs emphasize intensive student support systems for all student participants, especially for students typically underrepresented in college environments (Lieberman, 2004). Because limited research and data on transitional programs exists, the purpose of the case study and data analyses was to assess MMC as a viable educational alternative and as a program supportive of student transition from high school to college (Rodríguez et al., 2012).

Included in the review of literature from Chapter Two, was the historical overview of educational reforms instrumental in the creation of transition programs. Overall, educational reforms shape the way education is available to students (Ginsberg, 2003). Evidence on reasons students were dropping out of school, along with the known barriers students encountered, led to an educational shift with less emphasis on dropout prevention and more emphasis on successful high school to college transition programs (Barnett, 2010; Rodríguez et al., 2012).

An additional historical event included the process of high schools and colleges renewed motivation toward partnerships, which subsequently provide additional support for the development of various transition programs (Jennings et al., 2007). Many transition programs exist today, however, middle colleges provide a unique college-based approach for students (MCNC, 2014a). Middle college offers students a chance to enroll in high school and college curriculum simultaneously, while students are provided with additional academic and personal support not traditionally offered in the high school settings (MNCN, 2014b).

The main emphasis of the current study is students' educational advancement at one Midwest middle college, MMC. The study evaluated MMC's ability to address identified barriers in students' high school to college transition. Additionally, the case study surrounded the concept of providing evidence for the viability of MMC as an alternative, credit-based transition program for students, based on focus groups with graduates of MMC as program participants and data analyses.

In Chapter Three, a narration of the methodology of the study was conducted. Also included in Chapter Three was a review of the problem and purpose for evaluating the effects of MMC on student participants, and the five proposed research questions. The mixed-methods design was utilized due to the combined benefits of qualitative and quantitative features (Creswell, 2014; Fraenkel et al., 2012). The qualitative aspect of the study encompassed the student focus group, while the quantitative aspects included pre- and post-comparison of attendance and GPA, along with dropout rates compared with statewide data, and subsequent college enrollment rates at the target site institution (Creswell, 2014; Krueger & Casey, 2014). The procedures for data collection were outlined, followed by the process of data analyses (Bluman, 2014; Creswell, 2014). Expected hypotheses outcomes of significant differences for each research question was indicated within the chapter as well.

The respondent population, as discussed in Chapter Four, consisted of student graduates from MMC, for both the qualitative and quantitative components. Students from the target years 2011-2012 and 2012-2014 were included in the study. Within the target years, there were 91 total student completers. No selection or sampling procedure occurred, and no participants were excluded from the quantitative data (Creswell, 2014;

Fraenkel et al., 2012). While no demographic information was obtained from the focus group participants, any overt characteristics from student participants appeared to align with the population demographics obtained for the quantitative data (Fraenkel et al., 2012).

The goal of the qualitative focus group was to obtain information on student perceptions of MMC, to better understand if students experienced more academic success by attending MMC. A qualitative sample size of seven participants included three female and four male participants. Responses from students were also grouped into development of themes (Krueger & Casey, 2014). Secondarily, the goal of the quantitative analysis was to determine if a statistically significant difference existed in four student areas; attendance, grade point average, dropout and retention rates.

As discussed in Chapter Four, an extensive analysis of the target research site and case study findings, along with the results of the data analyses, revealed several results. The analysis of the qualitative research question provided insights to student perceptions from the focus group participants. Students reported they felt students were unsuccessful in their traditional high schools, due to the lack of relationship with school personnel and rigid school environments. The dearth of relationships reportedly led some students to attend school less, earn grades lower than their capabilities, and demonstrate negative behaviors with school staff and peers. Students were also able to compare their experiences in both educational environments, and reported the staff of MMC recognized students and were responsive to student needs. In regards to the difference in settings, students reported MMC allowed for more freedom, and a more mature and engaging environment. After participation in MMC, the majority of students reported they were

more engaged in school, as evidenced by better attendance, grades, and behaviors in their relationships with staff and peers.

An analysis of the focus group transcripts revealed several developing themes. Students reported experiences with *Failure to launch* in their former school environments, which prohibited them from experiencing educational success: difficulty with school structure, environments, relationships with staff and peers, conforming to school rules, and in demonstrating positive attendance, grades, and behaviors. Another theme revealed a *Humanistic* component was important to student participants of MMC. For the *Humanistic* theme, students indicated they experienced disconnect in their former environments, and stated MMC environment was more open, flexible, and individualized to fit student needs. Additionally, students reported they were treated with more acceptance, understanding, and awareness from staff and peers.

Three additional themes were found from the focus group transcripts. Another theme was the student perception of increased *Relevance and rigor* within MMC. Statements from students eluded to more advanced options in curriculum, more opportunities for variety and exploration in their learning. Some students reported a decreased GPA but improved attendance, when discussing this category, due to the increased rigor they experienced at MMC. One more theme eluded to a *Less is more* relationship; students perceived an educational environment with less restrictions led student to demonstrate improved engagement in school, as evidenced by attendance, grades, behaviors, and likelihood of continuing enrollment. The last theme, *Futurism*, consisted of student perceptions of the impact their school environments on future

aspirations, related to goals, college credits, potential interest-related internships and careers, and assistance with college applications and scholarship options.

The remaining four quantitative research questions for the study, surrounded student components including attendance, grade point average, dropout, and retention rates in subsequent college enrollment, with MMC as the intervention. A confidence interval of 95 was selected for each analysis (Bluman, 2014). The results from the statistical analyses varied in methods used and in outcomes obtained. The research question tied to pre- and post-attendance, was analyzed through a within-subjects, *t*-test for correlated proportions (Bluman, 2014; Fraenkel et al., 2012). A significant difference was expected, but not supported by the analysis. Therefore, no significant difference existed between pre- and post-attendance rates. The research question of pre- and post-GPA, was also analyzed through a within-subjects, *t*-test for correlated proportions (Bluman, 2014; Fraenkel et al., 2012). The results for Research Question Three provided enough evidence to reject the null hypothesis and support the expected alternative hypothesis; a significant difference existed between pre- and post-GPA rates for student participants of MMC.

The last two quantitative research questions analyzed data on dropout rates and subsequent college enrollment. Research Question Four compared dropout rates of student participants from MMC with state-wide dropout rates. The dropout rate data were analyzed through a between-subjects, *t*-test for independent proportions (Bluman, 2014; Fraenkel et al., 2012). The analyzed data obtained on dropout rates led to the decision to not reject the null hypothesis. Therefore, student participants of MMC did not

experience a dropout rate significantly less than the dropout rate experienced by students state-wide.

Research Question Five, consisted of the collection of data on former student participants from MMC, within the targeted years, and their subsequent college enrollment rates at the target site institution. College enrollment rate data were analyzed through a within-subjects, *t*-test for correlated proportions (Bluman, 2014; Fraenkel et al., 2012). Subsequent enrollment rates at the target site institution, after completion of MMC intervention reached 63%. However, the statistical analysis conducted focused on students who immediately transitioned, with those who did not continue enrollment. The analyzed data obtained for Research Question Five led to the decision to not reject the null hypothesis of no significant difference.

In Chapter Five, in the findings for the qualitative and quantitative research questions were discussed. The findings of the focus group indicated student participants of MMC perceived several failures related to their former, more traditional school environments. Students also reported their experiences of MMC, led them to experience more engagement in school, which positively impacted their attendance, grades, behaviors, and outlook on educational goals. While the findings for the quantitative portion revealed, no significant difference in attendance, dropout rates, and subsequent college enrollment, with MMC as the intervention. However, a significant difference was found for student participants in pre- and post-GPA analysis.

The conclusions based on the data were discussed, with supplemental information from relevant research and literature included. Interestingly, based on the conclusions from the study, the only results consistent with the existing research was the findings

from Research Question One and focus group statements. The literature tied to Research Question Two and Research Question Three indicated student participants of transition programs experienced mixed results in regards to attendance and GPA. However, the study revealed students experienced no significant difference in attendance rates but did experience an increase in GPA at a significant rate. Therefore, the study provided evidence to support the researched linked with improved GPA for transition program participants. For Research Question Four and Research Question Five, the results of the study were inconsistent with the literature as well. The majority of the research on dropout rates and post-secondary enrollment revealed significant differences for participants of transition programs, findings that were not supported by the study.

The implications section of the study included suggestions for college-based transition programs interested in improving high school to college transition rates. The implications section primarily focused on the importance of flexible environments and humanistic treatment of students. The final section of Chapter Five includes a discussion of recommendations for future research in the following areas: the impact of programs like MMC on consortium schools, better methods of measuring student engagement, and more emphasis on the college components tied to middle college concept.

Appendix A

LINDENWOOD

Focus Group Procedures and Questions

Welcome and Introduction:
Thank you for agreeing to be part of the focus group. (Moderator introduces him or herself.)

Purpose & Reason:
The purpose of this focus group is to examine the impact of Midwest Middle College (MMC) on graduates of the program. Specifically, we want to hear from graduates of the program in order to better understand the attitudes and perceptions of the program. Input from you and the other group members will assist in better understanding MMC. Your participation may benefit you and others by helping to improve middle college programs. We need your input and want you to share your honest and open thoughts with us.

Expectations:

1. We want to hear from each of you. I (the moderator) may call on you if I haven't heard from you in a while.
2. There are no right or wrong answers.
3. Every person's experiences and opinions are important.
4. You may respectfully speak up whether you agree or disagree.
5. I expect what is said in this room to stay in this room.
6. This session will be recorded.
7. You will not be identified by name in any report. You will remain anonymous.

Questions & Discussion Topics:

1. Why do you think so many students are unsuccessful in high school?
2. Why do you think some students say they are better at school while at MMC, than at their previous school?
3. What unique experiences did you get to be a part of because of MMC?
4. How does MMC help students, for example with school or personal issues, that doesn't happen at other schools?
5. Describe how MMC "felt" compared to the other schools you attended.
6. How is MMC more flexible than other schools you have attended?
7. How did MMC help you get ready for future?

Closing Remarks & Thank You:

8. What questions have I not asked that would be important to know? (If so, please ask the participant to answer the question.)

Thank you for your time and participation in this focus group. I remind you participation in this group is to be kept confidential. Therefore, discussion about this group outside of this group is prohibited. If you have any further comments or questions, you may contact the researcher whose contact information is provided on the consent form.

Appendix B

LINDENWOOD

LINDENWOOD UNIVERSITY ST. CHARLES, MISSOURI

DATE: May 29, 2015

TO: Piper Wilson, Ed.D.
FROM: Lindenwood University Institutional Review Board

STUDY TITLE: [744973-1] A Case Study of the Efficacy of Middle College on Educational Advancement

IRB REFERENCE #:
SUBMISSION TYPE: New Project

ACTION:
APPROVED APPROVAL
DATE: May 29, 2015
EXPIRATION DATE: May 29, 2016
REVIEW TYPE: Expedited Review

Thank you for your submission of New Project materials for this research project. Lindenwood University Institutional Review Board has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the study and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the appropriate adverse event forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to the
IRB.

This project has been determined to be a Minimal Risk project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the completion/amendment form for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of May 29, 2016.

Please note that all research records must be retained for a minimum of three years. If you have any questions, please contact Katherine Herrell at (636)627-2555 or kherrell@lindenwood.edu. Please include your study title and reference number in all correspondence with this office.

If you have any questions, please send them to IRB@lindenwood.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Lindenwood University Institutional Review Board's records.

Appendix C

[redacted] HUMAN PARTICIPANTS REVIEW APPLICATION COVER SHEET

Project Personnel — Human Participants Training Certificate: On File / Attached

__Piper Wilson_____ _____ ___X_____
Principal Investigator

Division__Technical Education_____ Department____Career Center_____

Project Involves Protected Health Information Yes _____ No ___X___

Co-Workers — Human Participants Training

__N/A_____ Yes_____ No_____

__N/A_____ Yes_____ No_____

Additional names and information on training are to be provided on an attached sheet

Proposed Project Dates: from_06__/_03_/_2015_ to _06__/_03_/_2016_
Title_A Case Study on the Efficacy of Middle College on Educational Advancement
Funding Agency or Research Sponsor____Dr. Rhonda Bishop and Lindenwood University_____
__X_New Project ____Renewal or Continuation
____Change in Procedure from Previously Approved Project ____ Resubmission

RECOMMENDATION OF THE DIVISION IRB MEMBER
____Category I, Exempt, Sub-part A, Section 45.101 45 CFR 46; exempt category____
____Category II, Expedited Approval, Sub-part A, Section 46.110; expedited category____
____Category III, Full Committee Review

_____ _____
IRB Division Representative Date

ACTION OF THE IRB

____Approved as Exempt X Expedited Approval

RESULTS OF FULL IRB REVIEW

____Approved ____Deferred (see attached comments) ____Disapproved (see attached comments)

_____ 6/17/2015
IRB Institutional Research Representative Date

Appendix D

LINDENWOOD

Focus Group Invitation & Recruitment Script

(This template is meant only as a guide. The invitation should be conversational.)

Name:
Phone Number:
Time & Date of Call:

Hi, this is _____, and I am calling you regarding Midwest Middle College (MMC) program you recently graduated from. I got your name and contact information from a member of MMC staff and they said you might be interested in what we are doing. We want to talk to you about your experiences during and after your participation in the program.

You were a recent graduate of MMC, right? I'm sure you have some thoughts and ideas to share. We're getting together a small group of recent graduates to discuss aspects of MMC and talk about their experiences. We plan to have between five and 10 previous students participate. We will have a few refreshments as a thank you for your time and participation.

Date:
Time: (allow for two hours total)
Location:
Would you be able to join us?

No_____ Okay. Thank you for your time.

Yes_____ Great! I'd like to send you a letter just to confirm everything.
I have (check spelling of names and obtain current address)
_____
Thank you. I'll send you the letter and we look forward to hearing from you at the discussion!

(Framework adapted from Krueger & Casey, 2014)

Appendix E

LINDENWOOD

Focus Group Reminder Letter

(Insert Name and Address of Participant) (Date)

Thank you for accepting our invitation to talk about Midwest Middle College (MMC)! We look forward to hearing your thoughts about the program, as well as the opinions of other recent graduates.

The discussion will occur on . . .

Day

Timeframe

Location Title

Location Address

Location Room- with instructions

This will be a small group, with between five and ten people. Snacks and drinks will be provided.

If for some reason you will be unable to join us, please call as soon as possible so we can try to find a replacement for you. If you have any questions, please feel free to give me a call at [redacted]

We are looking forward to meeting with you, on (insert day and time)!

Sincerely,

Piper Wilson

Doctoral Student

(Framework adapted from Krueger & Casey, 2014)

Appendix F

LINDENWOOD

Informed Consent for Moderator and Transcriptionist in Research Activities

A Case Study of the Efficacy of Middle College on Educational Advancement

Principal Investigator __Piper Wilson_____

Telephone: [redacted] E-mail: [redacted]

Participant_____

Contact info _____

1. You are invited to participate in a research study conducted by Piper Wilson under the guidance of Dr. Rhonda Bishop. The purpose of this research is to examine the role of one Midwest Middle College (MMC) as a viable educational alternative to the traditional school environment and as one that supports student transition from high school to college.

2. Your participation will involve moderating the focus group or transcribing the focus group communication (circle one).

   Acceptance of participation in the focus group, as the focus group moderator facilitating the focus group session, includes ensuring all participants complete and sign the consent form prior to the start of the focus group, ensuring the audio and video methods of recording the session are working properly, following the outlined procedures as provided to you during the focus group, and ensuring confidentiality for the participants. The focus group session will last approximately one hour, and will have a clear welcome with expectations, proposal of eight open-ended questions to the focus group participants, and closure with the participants being thanked for their time.

   Acceptance of participation in the focus group, as the focus group transcriptionist, includes reviewing audio and video recordings of the focus group, after the completion of the focus group, and transcribing all communication present during the recording into a Microsoft Word document, identification of themes communicated by participants, and providing the transcription along with all paper and electronic versions to the researcher. You will not be allowed to keep any information about the study and are responsible for the confidentiality of all participants included in the study.

3. There are limited anticipated risks associated with this research, including possible discomfort during the discussion.

4. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge of middle colleges and may help others.

5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You will NOT be penalized in any way should you choose not to participate or to withdraw.

6. We will do everything we can to protect the privacy of participants as well as your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.

7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, (Piper Wilson, [redacted]) or the Supervising Faculty, (Dr. Rhonda Bishop, [redacted]). You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs at 636-949-4846.

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

_____	_____
Moderator Signature Date	Moderator Printed Name
_____	_____
Transcriptionist Signature Date	Transcriptionist Printed Name
_____	_____
Signature of Principal Investigator Date	Investigator Printed Name

Appendix G

LINDENWOOD

Informed Consent for Participation in Research Activities

A Case Study of the Efficacy of Middle College on Educational Advancement

Principal Investigator __Piper Wilson_____

Telephone: [redacted] E-mail: [redacted]

Participant_____

Contact info _____

1. You are invited to participate in a research study conducted by Piper Wilson under the guidance of Dr. Rhonda Bishop. The purpose of this research is to examine the role of one Midwest Middle College (MMC) as a viable educational alternative to the traditional school environment and as one that supports student transition from high school to college.

2. Your participation will involve acceptance of the invitation to participate in the focus group, including a reminder with the day and time of the focus group, along with the number of participants to expect, and information about the session being recorded.

   On the day of the focus group, students will sign a consent form which includes confidentiality regulations, prior to involvement in the study. Next, the participants will follow the outlined procedures for the focus group. The focus group session will last approximately one hour, and will have a clear welcome with expectations, proposal of eight open-ended questions to the focus group participants, and closure with the participants being thanked for their time.

   The focus group will be recorded for later transcription and data tracking purposes. Focus groups will be recorded via video and audio, with the audio recording serving as a backup to the video. The focus group will later be transcribed by a transcriptionist, in order to look for themes provided by participant statements. The transcriptionist is bound by confidentiality as well.

4. There are limited anticipated risks associated with this research, including possible discomfort during the discussion.

4. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge of middle colleges and may help others.

5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you

do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.

6. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.

7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, (Piper Wilson, [redacted]) or the Supervising Faculty, (Dr. Rhonda Bishop, [redacted]). You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs at 636-949-4846.

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

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

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Vita

Piper Wilson was born in Independence, MO on May 31, 1984. She attended Liberty, MO Public Schools and graduated high school in 2002. Piper then moved to Springfield, MO to continue her post-secondary education at Missouri State University (MSU). She graduated with a Bachelor of Science in Psychology with a personalized minor in Secondary Education. She then pursued a Master of Science in Counseling, double majoring in Secondary School and Community Agency, and earned her second degree from MSU in 2009.

While working on her Bachelor's degree, Piper was employed as Childcare Assistant and Weekend Supervisor at a local hospital. As a Master's student, Piper began work as a Graduate Assistant at MSU for the Dean of Health and Human Services, and then moved on to become a Graduate Assistant for the Educational Leadership and Counseling Department.

After starting employment as a Licensed Counselor at a local private practice in 2009, Piper was hired as a full-time Counselor at Ozarks Technical Community College (OTC) in 2010. Within nine months of hire date, she was promoted to the position of OTC Coordinator of Career Center Programs. Piper was selected to participate in the 2013 Chancellor's Leadership Academy, and was also selected in spring of 2015 to participate as a member of the Title IX Investigative Team. With all these added responsibilities, Piper continues to counsel in private practice.

In the future, Piper hopes to travel the world and learn a new language. In the meantime, Piper enjoys hot yoga, hiking, kayaking, and camping. She also enjoys getting lost in a great book, and spending time with her wonderful friends and family.