ABSTRACT

Gloria Woods-Weeks, GRADUATES OF AN EARLY COLLEGE HIGH SCHOOL: PERCEPTIONS OF COLLEGE READINESS (Under the direction of Dr. Matthew Militello). Department of Educational Leadership, November 2017.

This study used Q Methodology to identify and examine the Early College High School graduates' perceptions of college readiness after completing year one of college. The data acquired was obtained from 34 former graduates of an early college high school located in the southeastern part of the United States. The study generated five unique claims or perspectives on the specific success factors endemic to the early college institution as perceived by graduates of the ECHS. The perceptions revealed that the participants view the success factors as a critical and needed support structure for students during their transition into the post-secondary academic environment. The findings discussed have the potential to further reinforce the emerging body of research on successful educational outcomes for ECHS students and to impact the theoretical and practical considerations of the ECHS as an alternative to the traditional high school model. This study seeks to contribute to the limited body of research that highlights the ECHS student's point of view concerning college readiness and the ECHS experience. Finally, empirical findings allow for a new analysis of the current literature and research.

GRADUATES OF AN EARLY COLLEGE HIGH SCHOOL: PERCEPTIONS OF COLLEGE READINESS

A Dissertation

Presented to

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by

Gloria Woods-Weeks

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GRADUATES OF AN EARLY COLLEGE HIGH SCHOOL:

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DEDICATION

This dissertation is dedicated to my mother, my husband, and my children.

To my Dearest Mother – Thank you for the love and support you've shown along the way. Your guidance, your wisdom, and your example is a big part of who I am today. It is because of your sacrifice, prayers, and encouragement that I have been able to accomplish this goal.

To my Darling Husband – Thank you for your endless love! You have always encouraged me to pursue my dreams with zest. You have been my biggest cheerleader and a pillar of support throughout this endeavor.

To my Dearest Daughter and Son – You are truly a gift and blessing from God. Thank you for your patience, support, and understanding throughout this journey. I adore you both.

Annie L. Woods
Willie Weeks, III
Briani Ashley Weeks
Willie Weeks, IV

(adapted from Marianne Williamson's *Releasing Outcome Prayer - Illuminata*, 1994)

My Dissertation Prayer

Dear God,

I release this goal to you. I know that my tension, my control, and my direction do not serve the project or you. May my resources be used by you; I ask only that your will be done. I have shown up Father; I have done as I have felt you have asked me to do. And now I place all outcomes in your hands. May my efforts gladden you. May my work please you. I am here only to do your bidding, that I might feel lighter, that I and the entire world might be healed.

Amen

Thank you God for everything, I have no complaints.

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CHAPTER I: INTRODUCTION

The Goal of American Public Education: Quality Education for All Students

Quality education for all students has been in the crosshairs of educational legislation, reforms, and research since the formalization of schooling in the United States in the 17th century. Horace Mann (1796-1859), the father of public education in the United States, believed that it was the local communities that should carry the accountability for helping their less fortunate children. Going forward, since the establishment of the original United States Department of Education in 1867, America has been consistently reforming public education in the name of a free and quality education for all (Sunderman, 2006).

In 1958, the National Defense Education Act was created during the Cold War Period to provide federal funds for economically disadvantaged youngsters to further their education. In 1979, President Jimmy Carter attempted to upgrade the Office of Education to a formal cabinet-level Department of Education. Carter's plan was to transfer most of the Department of Health, Education, and Welfare's education-related functions to the Department of Education. However, many members of the Republican Party were opposed to the upgrade because of their belief in the limited role of government. Today, the primary functions of the Department of Education are to (a) establish policy, (b) administer and coordinate most federal assistance to education, (c) collect data on U.S. schools, and (d) enforce federal education laws regarding privacy and civil rights. Theoretically, the execution of these functions should contribute to the goal of providing a quality education for all students in the United States.

While initially the idea of expanding educational opportunities to all students in order to enhance the global competitiveness of the United States surfaced during the Cold War period (1947-1991), it continues to this day. With this ambitious goal underscoring educational priorities

since that time, there have been a number of waves of public reform over the decades aimed at reshaping public education in the name of educational equality for all while at the same time, serving the country's interest in advancing technical, economic, and global progress. With such goals in mind, and specifically emphasizing the essential right of a quality education for all the nation's students, I propose to study the early college high school (ECHS) as a relatively new reform initiative (2002) intended to address the inequities of public education at the high school level. I will examine the purpose and effectiveness of the ECHS, highlighting its mission to provide those populations of students most often left behind (representing racial/ethnic minorities, socially and economically disadvantaged families, etc.) with an alternative high school experience; in essence, one that incorporates a more inclusive teaching/learning environment, expanded curricular options, individualized student support, and access to college courses/credits among other improvements. Through this study, I aim to report findings that will speak to the effectiveness of ECHSs at the present time, suggest recommendations for future improvement, and contribute to the rather limited body of current ECHS research.

Overview of The American High School: Problems and Reform Efforts

Originally, and dating back to 17th century, high schools were not established to ensure that every student graduated and attended college (Wise, 2008). Fundamentally, the 17th century concept of high school was based solely on educating students who would be able to go on to Harvard, implying that among the overall population of high school students, a majority was expected to join the general workforce after graduation. Furthermore, society was able to maintain such a workforce as it was largely comprised of both high school graduates and many drop-outs entering trades and unskilled labor areas. On this view, the importance of building strong relationships among teachers and students, creating a sense of community, supporting student

self-efficacy, and promoting motivation for college readiness were not included as factors in the composition of the 19th century high school model (Bandera, 1997; Barnett, 2006; Born, 2006; Byrd & McDonald, 2005; Conley, 2005, 2007; DiMartino & Clarke, 2008; Fisher, 2000; Kisker, 2006; Smyth, 2006; Wise, 2008).

Current research indicates that the 19th century model of high school is still the fundamental organizing structure of our high schools in the 21st century (DiMartino & Clarke, 2008). That being said—with the continuing evolution of political, economic, social, technical, and cultural dynamics over time—profound changes have emerged that are putting demands on contemporary American high schools and their administrators to redefine themselves in contrast to the educational priorities and social structures of a century or more ago. Ultimately, as our society faces increased needs for creative solutions, innovation, and a more technological workforce, the current high school model has essentially become antiquated.

Furthermore, and specific to school reform, one of the few areas of consensus among school reformers over the past two decades has been the belief that large, comprehensive high schools have outlived their function. Comprehensive high schools were originally created in the early 20th century in response to a series of enthusiastic national reports that advocated regionalization as a remedy for any number of educational ills. At the time, large schools were understood to promote varied and pragmatic curricular choices for an increasingly diverse youth population. As such, they could accommodate a broad range of student abilities and career goals while also promoting social mixing and later, racial integration. Now, the certainty that "big is bad" pervades the literature on school change (Teachers College Record, 2007). The perceived failed promise of comprehensive high school to effectively educate America's youth has generated a national interest in high school reform (Goodlad, 1984; Kuo, 2010; Oakes, 1985;

Smeardon & Borman, 2009; Wasley, Fine, Gladden, Holland, King, Mosak, & Powell, 2000). One such area of reform is a movement to restructure high schools as small learning communities centered on unique curriculum and state-of-the-art teaching (Newmann, Smith, Allensworth, & Bryk, 2001).

A post-secondary education is critical to success in today's economy, especially amidst the changing requirements for a savvier and more information-literate work force. According to statistics from the U.S. Department of Labor (2008), the continued trend in the demand for a more highly educated workforce is predicted to continue. As a recent example, projections from the "Bureau of Labor Statistics (BLS) for 2004 through 2014 indicated that nearly two-thirds (63.4%) of the projected 18.9 million new jobs would most likely be filled by workers with some post-secondary education" (U.S. Department of Labor, 2008, p. 9). Educators must be focused upon creating opportunities for students that offer rigorous and relevant academics, a sense of connection to adults, and a focus on preparing students for a post-secondary education or employment.

The need for the reformation of high schools in the 21st century is a result of declining high school graduation rates and students unprepared for post-secondary options (Conley, 2005; Greene & Forrester, 2003; Kisker, 2006). Stated another way, there is a crisis in American high schools in that too few students are making strong academic gains during the high school years, resulting in many high school graduates being unprepared for the rigors of college or the demands of competitive jobs. According to research conducted by the Manhattan Institute (2001), between the ninth and twelfth grades, more than one million U.S. students will leave school without earning a diploma. For Hispanic and African American high school students, the statistics are especially grim, with only 50% graduating. To further dramatize the implications of this statistic,

there were more African-American men incarcerated than were enrolled in higher education in the year 2000, according to the Justice Policy Institute (2000). Furthermore, according to Rouse (2005), each high school dropout costs the nation approximately $260,000 over the course of his or her lifetime. In terms of their individual earnings potential, while workers with a high school degree will out-earn those who do not graduate by more than half a million dollars, college graduates will out-earn high school graduates by more than a million dollars (Scherer, 2007).

The aggregate data is alarming. However, the disaggregate data, by race, is shocking and unacceptable. African American and Hispanic students are not achieving at the same rates as their white counterparts. The faces of the young people behind these stark numbers are diverse, along with their individual life circumstances. They include immigrants, non-traditional learners, bored and unchallenged adolescents, and students disconnected from their schools and community.

From 2006 to 2016, more than two million new jobs will have been created requiring at least an associate degree or postsecondary training (New Democratic Leadership Council, 2005). However, the reality is that two-thirds of American ninth graders will not be prepared for college within four years, and half of those who actually go to college will never earn a degree (Bill & Melinda Gates Foundation, 2009). By 2020, our nation will be short 14 million college-educated workers. The cost to the U.S. economy—in terms of students unprepared to enter college and/or the workforce—is estimated to be at close to $4 billion dollars annually in lost wages and remedial education costs (Gates, 2009).

Consequences of Quality Education for Some – Not All

Recent studies suggest that despite the well-meaning objectives of accountability initiatives like No Child Left Behind and state-based, high stakes testing systems, these policies appear to have had the unintended consequence of pushing thousands of young people out of

school and, often, into the juvenile justice system. Moreover, students have reported feeling bored, unmotivated, or simply forgotten within the assessment/testing culture of contemporary public education. Complicating this scenario is the ongoing dilemma of overcrowded urban high schools that typically lack the organizational capacity required to address the variety of issues needed to engage and retain students. Ultimately, nearly one-third of American students are not graduating from high school. According to Tom Vander Ark. executive director of education for the Bill & Melinda Gates Foundation, “This represents nothing short of a massive failure of America's high schools".

Possibilities: Restructuring High Schools, Student Input, and ECHS

Historically, traditional comprehensive high schools have been designed, prepared, and implemented by educators. However, research indicates that student perceptions about their learning experiences can provide understandings to educators and administrators who are continuously challenging a change in current school structures and designs (De La Ossa, 2005). Therefore, learners’ communications of their perceptions about their schooling experiences can become a powerful source for examining aspects of school design; as such, providing feedback on current practices that might be improved to better support postsecondary preparation and, potentially, providing insight into one of the major reasons why students falter in college—the challenging transition from the high school experience to college expectations (Barnett, 2006; Born, 2006; Bryd & McDonald, 2005; Conley, 2005; Tinto, 1993). According to Marx (2006), the generation comprised of today's high school students, noted as the Millennials, were born between 1982 and 2003. Generally, as a group, these students are confident, social, civic- minded, optimistic, and accepting of diversity. Such learner characteristics require and benefit from experiences in schools that offer choice, voice, and skills that will prepare students for jobs that

may not even currently exist (Marx, 2006). Today our students represent an unprecedented level of diversity in abilities, learning styles, prior educational experiences, attitudes, and habits related to learning, language, culture, and home situations (Lachat, 2001).

Overall, I suggest that the good news lies in the belief that today's public high schools can be restructured and redesigned to achieve higher levels of effectiveness by embracing the diversity represented by the nation's students. On this point, I propose that more students will succeed if communities provide them with a rich variety of education options. To this end, the early college high school stands out as one such example of reform efforts within the movement to restructure high schools as small learning communities centered around unique curriculum and state-of-the-art teaching (Newmann, Smith, Allensworth, & Bryk, 2001). It is on this basis that I propose a study of the early college high school model, the aim being to highlight perceptions of the ECHS as communicated by a selection of ECHS graduates; further, to discover what is (or is not) working in terms of fostering college readiness and how to make the current model better.

Promise of a New Kind of School: The Early College High School

Starting in 2002, the Bill & Melinda Gates Foundation, partnering with other funding agencies, created the Early College High School Initiative (ECHSI), leading to the widespread creation of ECHSs throughout the country. With over 200 ECHSs currently in place—approximately 75 in North Carolina—there is a pressing need to understand whether/how ECHSs work and for whom.

In terms of planning and implementation, the ECHS exists through a partnership with a school district and the higher education partner. The school is governed by its local board of education, and the school district determines how students are selected and assigned to the school. As a public school, the early college high school must maintain open doors to all eligible students.

However, as a Cooperative Innovative High School (school of choice whereby students apply to participate), the ECHS is legislatively mandated to serve students who fall under the following categories: (a) at-risk for dropping out of high school/non-completion, (b) family background in which the student's parents did not continue education beyond high school, and/or (c) assessed as potentially benefitting from accelerated academic instruction (NC New Schools, 2004).

Early college high schools provide students with the opportunity to earn a high school diploma and two years of transferrable college credit or an associate's degree. Located on the campuses of two and four-year colleges and universities, early college high schools are intended to attract students who often are underrepresented in college, including minorities, students from economically disadvantaged families, students whose parents never completed college, students who have not met success in traditional high school settings, and students who require additional support and structure to accelerate their academic progress. ECHSs support students through what effectively become their first two years of college, typically the most vulnerable period for students from this target population.

Although all students can benefit from the exposure, challenge, and rigor of college work at an earlier age, students who transition to postsecondary success find their footing in the early college high school environment. These schools are purposely designed to engage students through a proactive and comprehensive support system that develops their academic and affective skills. Moreover, through policy and practice, administrators of ECHSs are allowed fresh thinking on how to best structure the school around the needs of the individual student, unlike the more prescriptive policies and practices maintained in a traditional, comprehensive high school. Essentially, ECHSs serve as proof point to the state the ability and responsibility of all schools to serve all students. Therefore, the ECHS commitment to the selection of underserved,

underprepared, and underrepresented populations of students, in particular, is unwavering. The North Carolina New Schools Early College High School Initiative (2012-2014) made student selection a priority, as evidenced by the following goal: 2012-2014 entering ECHS student cohorts would consist of: (a) 80% first generation college completing, (b) those populations traditionally underrepresented in higher education, or (c) students at risk for dropping out who may not yet see themselves as college completers.

It is critical that terms used to characterize the early college high school's target population are clearly identified and defined so that the selection of these students can be uniformly identified across the NC New Schools ECHS network of schools. As defined and framed by ECHS principals, Table 1 incorporates key descriptors of student characteristics and backgrounds that the early college model was designed to attract and serve. Use of these descriptors is intended to ensure that multiple criteria are considered in the selection process, including the student's circumstances, academic experiences, and future goals.

As schools of choice, some ECHSs use an application process to collect evidence of enrollment interest and to provide a mechanism with which to identify students for its limited number of enrollment slots. It is critical during the application process that ECHSs do not give the impression that its aim is to systematically exclude students who do not meet some preferred characteristics. Instead, ECHSs promote the inclusion of all students regardless of race/ethnicity, English as a Second Language status, exceptionality status, or free and reduced lunch status. At the same time, ECHSs may limit enrollment to a specific grade level or give preference to siblings of current students. However, locally suggested practices cannot nullify the legislative mandate to target, market, and serve a population of students typically represented as disadvantaged across a variety of designated categories.

Table 1

ECHS Key Descriptors for Selection of Students (Characteristics and Backgrounds)

Descriptor	Definition	Rationale	Artifact
First Generation College Completing	A student whose custodial parent/guardian has not earned a postsecondary degree	First generation college completing students	Self-reported data on student application
At-Risk for Dropping Out of High School	A student who is characterized by low self-concept and skills, disengagement with school, and low self-efficacy	Students at-risk for dropping out have many early warning indicators that manifest in their academic performance during the middle grades. The comprehensive supports offered by the Early College model make reports explicit the academic and affective skills necessary for progression towards college completion	Counselor referral, academic history, attendance records, student self-assessment, and disciplinary reports
Historically Under-Represented in Post-Secondary Education	A student whose family background can be described as low income, first generation college completing, or from a racial/ethnic minority group	Gaps in college enrollment exist among students from low income backgrounds and racial/ethnic minority groups – largely due to a lack of preparation for college level work during high school	Student racial/ethnic demographics, free and reduced lunch status, native language or English as a Second Language status

Note. NC New Schools, 2012.

The ECHS is built upon a framework of rigor, relevance, and relationships: the 3Rs. This framework is characterized by principles and practices of personalization, respect and responsibility, high expectations, performance-based decision-making, use of technology, common focus, and time to collaborate (American Institutes of Research & Stanford Research Institute International, 2003). It represents a foundational set of values for all early college communities. Taken together, these principles and practices are assumed to make ECHSs, "Inviting places where students and adults know each other well and pursue a common mission based on high academic achievement for all students and where professional community is collaborative and student focused" (American Institutes of Research & Stanford Research Institute International, 2005, p. 4).

The concept behind the ECHS model is supported by a growing body of research indicating that small, more intimate schools— predicated on the creation of close, supportive, and respectful school environments—are a strong precursor to ongoing student success and strong professional communities (Bryk & Schneider, 2002; Coalition of Essentials Schools, 2000; Lee et al., 1999; Sebring & Bryk, 2000). According to Shear et al. (2008), these attributes make early colleges places that combine rigor in the academic program of every student (not just those in an honors or gifted track) with relevance to his or her interests and potential career choices, reinforced by positive relationships with teachers and staff that can inspire students both academically and personally.

Ultimately, I suggest that more research into the effectiveness of ECHSs, with regard to their stated mission and purpose, would be significant to the ongoing improvement and refinement of this educational model. Questions to consider might include the following: Do Early College High School students succeed in college? What success factors truly make an early

college student? What does a successful early college high school student look like? What does the picture look like for an early college freshman high school student and then, again, as a graduate? I submit that such questions point to the pressing need for continuing evaluation of the implementation of the initiative, along with its short and long-term impacts.

Statement of Problem

In today's society, a high school diploma is the gateway to college post-secondary education. According to recent calculations, the net value of a college degree is more than $800,000 above a high school diploma, as measured by the increased lifetime earnings of a graduate less the cost of attending college (Daly & Bengali, 2014). Graduating from college to unlock higher earning potential is a longitudinal process that requires several distinct steps (Cabera & LaNasa 2001; Perna & Thomas 2006); having college aspirations, being a college-ready high school graduate, applying and gaining access to college, and persisting in college through graduation. High school graduation is an important component in the college degree pipeline.

As an administrator of an ECHS, I am responsible for ensuring that my students are proficient on curriculum content standards and ready for college and careers. Consequently, the responsibility of 9-12 public educations does not cease at the high school graduation. As an ECHS, we take a special interest in the post-secondary success of our students. Providing students with two years of college credits free of charge is no small feat. Substantial public and private funds has supported the replication of the ECHS model. The dollars do not represent a long-term stream. Rigorous evidence of the models effectiveness will be helpful in efforts to convince district and state officials to allocate dollars (Miller & Corritore, 2012).

The problem to be addressed in this study is the need to know more about the perceived effectiveness and impact of these schools on student academic and behavioral success. Are ECHS students ready for the rigor and high expectations placed upon them in a post-secondary culture? The lack of understanding of the student voice and perspective, especially those who have graduated from an ECHS is a limiting factor in the efforts to improve college readiness. This study will give voice to students while they are in transition.

Because of the relative newness of the early college high school concept, with its official implementation only established in 2002, I submit that an investigation into the effectiveness and impact of ECHSs on student college readiness, along with previously noted achievement gaps, can hold significant value for educators, administrators, and policy makers. In other words, with 14 years of existence within the public education landscape as of the year 2016, I propose that it is time to direct more focused attention on the workings of ECHSs so as to determine if/how they contribute to better educational outcomes for high school students, especially those who represent minority and socio-economically disadvantaged populations.

Purpose of the Study

The purpose of this study was to explore perceptions of graduates of an early college high school—after having completed year one of college—in order to examine and compare their responses with the success factors identified by the early college high school model. Thus, in contrast to examining why students fail in college, I explore the potential success of ECHS students in relation to their experiences of transition from high school to college. The possibility of clarifying and validating the ECHS model's success factors—in relation to former students' reported experiences of success (or not)—could help early college high school administrators put in place the type of programming that supports the ongoing development of these success factors.

Ultimately, based on its mission/commitment to empower students to move beyond certain limiting, personal factors that have impacted their academic success, the ECHS model emphasizes a powerful set of factors intended to foster a new-found basis for improvement during the high school years and future success in college. As principal of an early college high school and as a doctoral student/researcher, I am fundamentally invested in the effectiveness of the ECHS model. As such, I suggest that the perceptions of my former ECHS students provides valuable data and meaning in support of this study's purpose. The study sample are former graduates of my ECHS.

Significance of the Study to Practice, Research, and Policy

In 2005, the nation's governors committed themselves and their states to doing something that has never been done in the history of this country; that is, they addressed and began to put into place programs and processes intended to prepare all students to be ready for college and the demands of a 21st century workforce (Hall & Kennedy, 2006). Building on the 2001 *No Child Left Behind Act*, the governors recognized that although gains have been made between the most commonly examined student demographics—White students and their African American counterparts at the elementary school level—achievement gaps have persisted in high schools despite decades of reform initiatives (Education Trust, 2006). From this vantage point, I suggest that the ECHS can serve as the ground for developing focused research aimed at a particular kind of high school designed to address achievement gaps specific to minority students and other students representing disadvantaged backgrounds and circumstances. Therefore, this study is significant in terms of its potential to illuminate the level of effectiveness of an alternative high school initiative directly purposed toward empowering student success during the high school years and on into college. As such, present levels of effectiveness can implicate prospects for future improvement and success of the ECHS model.

In contrast to the proposed study's intended focus on student perceptions, little qualitative research has been conducted regarding student perceptions, motivations, and knowledge about college as a result of participating in an ECHS. However, extensive studies have been conducted (not specific to ECHS student populations) revealing common variables perceived by students as resulting in greater potential for success in college, including (a) self-management, (b) self-efficacy, (c) motivation and needs, (d) understanding, and (e) support (Drew, 2001; Ramos-Sanchez & Nichols, 2007; Robbins et al., 2004). More specifically, Robbins et al. (2004) found that predictors for college success were best-described using three constructs: (a) motivation, (b) academic-related skills, and (c) social engagement. Based on these identified constructs, I submit that the work of Robbins et al. (2004) directly complements/informs this study's aim to identify student perceptions of similar constructs, particularly students' perceptions of college readiness in three areas: academic-related skills (perceptions of academic readiness) , social engagement (perceptions of social/emotional readiness), and motivation (perceptions of motivation). Thus, this study holds significance for building upon a prior study of a general or traditional population of students while targeting the ECHS model and ECHS students, specifically, for investigation.

Finally, although there is much research that focuses on why students fail in college, I suggest that it is important to understand—from another perspective—why certain students are successful in college; that is, to explore possibilities as to how to encourage and support an ethic of success among initially lower-performing students during their high school years in order to better position them for post-secondary success. With this view in mind, this study is significant because it will highlight the mission of early college high schools as they have been designed to serve academically vulnerable populations of students, including those students who are (a) at risk of dropping out of high school, (b) first generation college completers, (c) ESL learners, and (d)

economically disadvantaged youth (North Carolina New Schools, 2004). On the other side of the equation, students who are not sufficiently challenged in high school (academically and developmentally) also end up underprepared to enroll and succeed upon transitioning into college. Moreover, the matter of identifying college goals and relevant courses remains an important social problem to which decades of research have not provided viable solutions (Equal Opportunity Schools, 2013). This study could potentially shed light on this issue.

Ultimately, this study should hold significance for research, policy making, and practice because—first—it will direct focal attention to the role of the ECHS as an alternative approach to improving secondary education from a variety of standpoints, including environment, curriculum, and pedagogical practice, with a particular emphasis on vulnerable student populations. Secondly, this study focused on former ECHS students' perceptions of their first- year college readiness, along with perceived outcomes of their experiences thus far. Based on students' responses and other types of data that were collected, this study yields valuable information and insights into the current state of ECHS effectiveness and recommendations regarding possibilities for improvement and, potentially, future expansion.

Research Questions

This study sought to identify and describe perceptions of how an ECHS education has prepared graduates for college readiness. As such, the study participants have all completed their first year of college upon their involvement in this project. The following three research questions guided this study:

1. What are the success factors of the early college high school that indicate student readiness for college?

2. What are former ECHS students' perceptions of success factors necessary for college readiness?
3. What has led these ECHS graduates/study participants to identify specific success factors as effective to their first year in college?

Overview of Methodology

The study addresses the impact of student self-efficacy and perceptions of success in college because of participating in an ECHS. The study used Q methodology to quantify ECHS graduates perceptions of college readiness. A Q methodology research design provides a visual representation of multiple student perspectives on the success factors of the ECHS contributing to college readiness. As researcher, I have determined that a mixed-method approach, conducted in two phases, was the most useful and effective research method for this study. In Phase 1 of the Q methodology implementation, I relied on a set of Q Statements generated from literature, research, and focus interviews with students. These statements are referred to as the concourse. The concourse was polished to generate a representative sample of statements known as the Q sample or Q set. The Q set is the tool used to obtain data about the success factors and effectiveness of the ECHS. Phase 2 of the study, was the selection of the P-sample or P-set.

The P-set was utilized to investigate the perceptions of a group of early college high school graduates who have completed their first year of college. As such, I collected and analyzed student data on academic readiness and student participants' perceptions of academic readiness in order to determine the strength of the relationship between these two variables, as well as to provide a more comprehensive examination of the readiness construct. Further, I examined relationships across the data in order to investigate specific success factors endemic to the ECHS institution as perceived by graduates of ECHS.

Role of the Researcher

As researcher, my role involves multiple capacities and tasks—from formulating the plan, design, and implementation of the study to collecting and analyzing data. My primary purpose is to examine the perceptions and attitude of ECHS graduates specific to their understandings and experiences of college readiness. Particularly significant to my role of researcher is the fact that I serve as the lead administrator (principal) for the targeted study site, an ECHS (uniquely situated on the campus of North Carolina Central University). The student sample was comprised of 34 students currently attending five universities in the surrounding area. Students were requested by email to participate in this study, which was conducted in the library on the campus of NCCU where many of the students attend.

Limitations of the Study

This study has several limitations and delimitations that involve sample and methodology. Relative to participants, this study was limited to a convenient sample of ECHS student graduates who completed all four years of grades nine through 12 from one school site, Josephine Dobbs Clement Early College High School at North Carolina Central University. Therefore, the study did not include any students previously enrolled in the ECHS and later enrolled in the comprehensive high school. Because this study relied heavily on self-reported student perceptions delimited to the selected sample, it did not involve comparisons with other early college high schools in Durham County, with traditional high school students in Durham County, or with other early college high schools across the state of North Carolina. Furthermore, this study did not address any racial comparisons between student participants and other traditional high school students in Durham County.

Thirty-four study participants were secured through a network of contacts and there is the assumption that participants had an awareness of and the ability to reflect upon their beliefs, perceptions, and experiences that have most affected their college readiness. The potential for researcher bias also exists, in that I am the lead administrator (principal) of the study site and the students selected were my former students. However, protocols were in place to protect the study results. The researcher selected the Q set, recruited participants, and interpreted factors. A pilot test was conducted on the Q set and necessary adjustments made to improve statement clarity and enhance understanding. Post analysis interviews were conducted with participants to obtain additional insights and perspectives.

Operational Definitions

First Generation College Completing — A student identified as first generation college completing is one whose custodial parent or guardian has not earned a post- secondary degree.

At-Risk — A student identified as at-risk of dropping out of high school is one who is characterized by low academic self-concept and skills, disengagement with school, and a low level of self-efficacy.

Underrepresented — A student whose family background can be described as low income, first generation college completing, and/or representing a racial/ethnic minority group.

Advanced Placement — This terms signifies an examination-based college credit (Hoffman, 2003).

Concurrent Enrollment — This term refers to programs that offer community college-level courses to high school students situated on either the high school or college campus. Students enrolled in these courses usually receive academic credits on both their high school and college transcripts (Boswell, 2001).

Distance Learning — This term refers to an educational approach that allows virtual high schools (online instruction) to provide students with an opportunity to take advanced and more rigorous courses that are not offered at their high schools (Carr, 1999).

Definitions of Other Key Terminology

Achievement Gap — This term signifies the disparity in academic performance on standardized tests, as well as graduation rates, between groups of students. It is most often used to describe the performance gaps that exist between many African-American and Hispanic students—at the lower end of the performance scale—in comparison to their non-Hispanic white peers. The term also indicates a similar academic disparity between students from low and high income families relative to their performances on standardized tests.

American College Testing Program Inc. (ACT) — An organization founded in 1959, the purpose of ACT is to develop assessments from which to provide greater access for students seeking to attend college and to determine which programs and colleges to pursue (ACT, 2009).

College Readiness — This term indicates the degree to which previous personal and educational experiences have prepared students for the expectations and difficulties encountered in college (Conley, 2007).

Comprehensive High School — As the primary model for high schools in the United States, the traditional high school includes the design of a general core curriculum with a broad range of extracurricular and curricular activities (DiMartino & Clark, 2008).

Computer-Adaptive Placement Assessment and Support System (COMPASS) — A test developed by the ACT (2006), this college readiness assessment is an untimed, computerized test that helps colleges evaluate student skills for placement into the appropriate courses. COMPASS

offers tests in reading, writing skills (grammar), mathematics, essay, and English as a Second Language (ACT, 2006).

Dual Credit — This term refers to coursework through which high school students can earn both high school and post-secondary credits for the same course (Waits, Setzer, & Lewis, 2005).

Dual Enrollment — This plan of action allows high school students to enroll in college courses prior to high school graduation, giving them first-hand exposure to the requirements of college-level work while gaining high school and college credit simultaneously (Bailey, 2003).

Early College — The Early College concept allows high school students to take college courses taught by college faculty on a college campus, high school building, or at a satellite center, but remains enrolled in high school. The courses bear high school and college credit simultaneously (Hoffman, 2003).

Early College High Schools (ECHS) — As alternatives to traditional comprehensive high schools, ECHSs "integrate high school and college resources to create an accelerated curriculum and allow students to graduate with a high school diploma and an Associate's degree in four or five years, instead of six" (Krueger, 2006, p. 1).

Early Decision Program — This program allows students to apply for admissions early, be informed of decisions early, and pledge to enroll if accepted (Hoover, 2002).

Middle College High Schools (MCHS) — As another category of alternative high schools, MCHSs are located on college campuses and assist students by covering the grades 9-12 course requirements, helping students to graduate successfully and encouraging them to attend college (Lieberman, 2004).

Millennial Learners — This term signifies a grouping of students, born between 1982 and 2003, who are currently in school and possess unique characteristics from their generation.

Self-Efficacy — A person's perception of his or her capabilities and potential to manage, organize, and successfully complete a given task (Bandura, 1997).

Chapter Outline of the Dissertation

This dissertation is divided into five chapters. Following is a brief outline of the primary content for each chapter:

Chapter I: In this introductory chapter, I provide an overview of the research, including reasons for exploring the college readiness perceptions of ECHS graduates, the relevance of the ECHS model to the field of education, and a discussion of the three research questions that will underscore the study, along with its basic components.

Chapter II: In this chapter, I present an extensive review of the research literature as applicable to the proposed study.

Chapter III: Specific to the Methodology chapter, I provide detailed information regarding the selected site, study participants, instrumentation and procedures, and methods used for data collection and analysis. I will also address, in more detail, the parameters of the study and its significance.

Chapter IV: In this chapter, I provide a presentation of the study's findings.

Chapter V: In this concluding chapter, I synthesize and analyze the study findings, also correlating them to the research questions. Further, I discuss the significance of the findings, their implications for the education community, and offer recommendations for future research into the effectiveness of early college high schools.

CHAPTER II: LITERATURE REVIEW

The purpose of this chapter is to review existing literature associated with early college high school students' perceptions of college readiness, along with other research involving theoretical and practical considerations of the ECHS as an alternative to the traditional high school model. Through this study, the researcher intended to gain a better understanding of early college success factors that former ECHS students perceive to have had the most impact on their levels of college readiness. Therefore, it is important to understand the historical progression of the early college high school, from its beginnings to the present time. The following bullet points represent the main chapter headings indicating this progression and also serve to organize the main body of research presented in this review:

- Historical Review of the Early College High School Initiative
- Five Core Principles of an Early College High School Program
- Early College High School Movement in North Carolina
- Current Research: Contributing Factors to Successful College Transitions

While conducting this review of the literature, I, as the researcher, utilized a variety of search strategies and tools to gather research that specifically focused on the significance of including student voices in the evaluation of ECHSs. I sought to locate studies that examined the various social and academic success factors attributable to an ECHS graduate's transition into the post-secondary academic environment; in other words, to understand the relationship between the ECHS graduate's high school experiences and his or her level of college readiness from the student perspective. To further organize and expand the search process, I located and examined studies that aligned with established college readiness constructs and incorporated search factors such as, "smaller class sizes; teacher support; rigorous curricula; collaboration between the high

school and college faculties; mastery goal orientation; and parental involvement" (Warren, 2007, p. 91).

Overall, the majority of the research was conducted using nationally accepted library databases provided by East Carolina University's Joyner Library. Most of the literature cited in this chapter came from the ERIC and Sociofile search engines as well as from the U.S. Department of Education's "What Works Clearinghouse" (WWC). I searched mainly in educational reform arenas and had much success with finding pertinent empirical research pertaining to academic achievement and college readiness. An extensive review of doctoral research on the ECHS completed this review of the literature. Having located over 130 articles related to the topic of early college high schools, I suggest that this study will further reinforce the emerging body of research on successful educational outcomes for ECHS students. It will also add to the limited body of research that highlights the ECHS student's point of view concerning college readiness and the ECHS experience.

Historical Review of the Early College High School Initiative

The 19th century concept of high school was based solely on educating students who would be able to go on to Harvard, implicating the notion that among the overall population of high school students, a majority was expected to join the general workforce. Furthermore, society was able to maintain such a workforce as it was largely comprised of both high school graduates and many drop-outs entering trades and unskilled labor areas. On this view, the importance of building strong relationships among teachers and students, creating a sense of community, supporting student self-efficacy, and promoting motivation for college readiness were not included as factors in the composition of the 19th century high school model (Bandera, 1997; Barnett, 2006; Born, 2006; Byrd & McDonald, 2005; Conley, 2005, 2007; DiMartino & Clarke,

2008; Fisher, 2000; Kisker, 2006; Smyth, 2006; Wise, 2008). Current research indicates that the 19th century model of high school is still the fundamental organizing structure of our high schools in the 21st century (DiMartino & Clarke, 2008). That being said—with the continuing evolution of political, economic, social, technical, and cultural dynamics over time— profound changes have emerged that are putting demands on contemporary American high schools (and their administrators) to redefine themselves in contrast to the educational priorities and social structures of a century or more ago. Ultimately, as our society faces increased needs for creative solutions, innovation, and a more technological workforce, the current high school model has essentially become antiquated.

The Early College High School Initiative (ECHSI) was funded by the Bill and Melinda Gates Foundation in 2002, in conjunction with the Carnegie Corporation of New York, the Ford Foundation, the W.K. Kellogg Foundation, the Dell Foundation, and Lumina for Education, the Walton Family Foundation, and other local foundations (Jobs for the Future, 2002). The initiative focused on young people for whom the transition into postsecondary education had become problematic. Its priority was to serve low-income young people—first generation college-goers, English Language Learners, and students of color—all of whom have been statistically underrepresented in higher education, and for whom society often has low aspirations for academic achievement. Since its implementation, this initiative has increased the number of young people (from these targeted groups) who have been able to attain an Associate's degree, two years of college credit, and/or the opportunity to attain a Bachelor's degree—tuition free (Jobs for the Future, 2002).

Moreover, the Gates Foundation gave $7 million to this non-profit, Jobs for the Future (JFF), in order "to expand technical assistance, track the progress of students enrolled in the

schools, and to share best practices" (Dessof, 2005, p. 18). According to the Gates Foundation, ECHs give "traditionally underserved students a rigorous college-level curriculum and the opportunity to earn two years of college credit or an associate's degree" (as cited in Dessof, 2005, p. 18) during their secondary education years. These blended or hybrid educational partnerships among ECHSs, colleges/universities, and community colleges provides the distinct opportunity to meld the degree requirements of (a) the traditional 4-year high school core- content curricula; the curricula of the first two years of a 4-year university program; or the curricula specific to the 2-year vocational, community college tracks.

As a result of the Gates Foundation's contributions and efforts to support the ECHSI, an ECHS model has emerged. At the typical ECHS, students take traditional core-content high school curriculum classes during their first two years, completing the coursework at an accelerated pace. During the last two years of their ECHS programs, students either complete 2-year associate's degrees or 4-year university equivalent requirements. Sometimes, students need five years to complete the ECHS process due to remediation needs and/or class availability issues. Ultimately, the ECHS program goal encompasses two fundamental purposes: (a) reduce the cost of continuing on from secondary to post-secondary education by affording students the opportunity to take college level classes at no cost and (b) provide traditionally underrepresented students with the opportunity to receive vocational, community college training of their choice so that they can be better prepared for the workforce straight out of high school.

Most ECH schools are physically located on community college or university campuses. They are typically funded as start-up programs by national grants from philanthropic institutions for a five-year period. A selective application process is normally used to determine students'

eligibility for the ECHS program. This application process hinges on validation of the student's background as being from a nuclear family in which the parents are not college educated.

Overall, the operational features and selection processes of the typical ECHS combine to assist in the positive development of these high school students at the organizational level. In turn, the intangible aspects of a positive secondary educational experience—such as "common focus, high expectations, personalization, respect and responsibility, time for collaboration, performance based [pedagogic emphasis], and technology as a tool" (Evan et al., 2006, p. 3) function as requisite and fundamental features of the ECHS institution. In combination, these features create an environment wherein students are provided the adequate and necessary resources for secondary education success (Evan et al., 2006). Furthermore, these intangible aspects of a positive secondary education experience for students in ECHSs manifest in the form of (a) high attendance rates, (b) improved achievement test scores, (c) school gains along Adequate Yearly Progress (AYP) standards with respect to previous school and district-level performances, (d) higher quality ECHS student performance in coursework than traditional secondary high school peers, and (e) higher aspirations for career and education futures for ECHS students in comparison to traditional high school students (Evan et al., 2006, pp. 9-10).

Inspirations: Bard Early College High School and Early Dual Enrollment Programs

Since the turn of the century, there has been a lot of national attention paid to the importance of "college readiness" for high school students. This attention reached a zenith in 2009 with Congress's use of federal stimulus dollars as a lever to improve student achievement through a commitment to "making progress toward rigorous college and career-ready standards"[i] (Berger, 2010). Coupled with this intense focus on the quality of secondary education was a focus on improving underserved students' likelihood for college completion, a commitment formalized

by the Bill & Melinda Gates Foundation's funding strategy that concentrated on improving college completion rates for underrepresented students (Bill & Melinda Gates Foundation, 2009). As previously noted, the Bill & Melinda Gates Foundation's Early College High School Initiative (ECHSI) began its development in 2002, operating at the intersection of these two important goals: (a) improving students' secondary (high school) experiences and (b) improving students' postsecondary (college/university or community college) experiences. From an historical perspective, this initiative was inspired by the Bard Early College High School, a school formed through a partnership between Bard College and the New York City Public Schools, opening its doors in 2001 (JFF, 2001). The purpose behind this partnership was to provide students and opportunity to earn both a high school Regents Diploma and an Associate's degree in four years with no cost to families and New York's government. The mission of the school was to offer public high school students a tuition free college course of study in the liberal arts and sciences. They sought to raise the quality and standards of secondary education and enable students from all backgrounds to succeed in college (Retrieved from http://www.bard.edu).

Schools in the ECHSI were conceptualized as institutions that would serve students traditionally underrepresented in postsecondary education, offering them the opportunity to simultaneously pursue a high school diploma and earn a substantial number of college credits. Therefore, from its inception, the ECHSI targeted underrepresented groups broadly defined to include students who were (a) the first in their families to attend college, (b) students from minority backgrounds, (c) English Language Learners, and (d) low-income students of any background (Jobs for the Future, 2008). Fundamental to ECHSI frameworks, the promise of earning college credits while in high school was built largely on long-existing dual enrollment programs such as th program that existed at Bard Early College High School. Dual enrollment

programs require a partnership between a school or district and a local institution of higher education. Courses offered can be academic or career/technical,and students earn college credit by passing the course. Students may or may not simultaneously earn high school credit (i.e., dual credit), but their college performance is documented on a college transcript. Although dual enrollment began as an option for academically advanced students, similar to AP and IB, it is now also seen as a mechanism to promote college access for a wider range of students. Some programs focus specifically on students traditionally underserved in college (Cassidy, 2010). To illustrate, approximately 57% of postsecondary institutions in 38 states had dual enrollment programs as of 2002 (Hoffman, 2005; National Center for Educational Statistics [NCES], 2005a). Further, a study conducted in two states provided evidence that dual enrollment can lead to a range of positive outcomes. For instance, students who had taken college classes while in high school were more likely to earn a high school degree, enroll in college, enroll in a 4-year college, enroll full-time, and persist in college compared with students who did not have college coursework experience during their high school years (Karp, Calcagno, Hughes, Jeong, & Bailey, 2007). In addition, study findings indicated that students who received college credits while in high school had higher college grade point averages (GPAs) and earned more college credits within three years of high school graduation (Adelman, 2006). Adelman (2006) suggested that if students can graduate from high school with at least six college classes, it will make college completion more likely. In contrast to such positive findings, other research has shown that dual enrollment programs—in isolation—do not improve student success. Despite the generally wide availability of programs allowing high school students to take college classes, very few students have taken advantage of them. In 2002–2003, only 5% of students, nationally, participated in dual enrollment programs (NCES, 2005b). In 2003-2004, only 17% of first-time college students earned credits

from a college while in high school (NCES, 2007). In many instances, high schools and school districts have restricted access to dual enrollment opportunities; for example, allowing only honors students to participate.

The hypothesis underlying both Bard Early College High School and the ECHSI is that even reluctant or discouraged high school students, unengaged in traditional school settings, can be motivated at a relatively early age to view themselves as successful participants in the college experience as the result of an alternative high school education. Recent research conducted by National Research Center for Career and Technical Education has supported this hypothesis (Hughes, Karp, Fermin, & Bailey, 2007). For example, an examination of the program in Florida and New York that allowed high school students to take college-level classes for college credits—such as Tech-Prep programs, International Baccalaureate programs, and Middle College high schools—found three primary benefits for students: (a) the opportunity to earn free college credit, (b) gaining "a taste" of college, and (c) increasing students' confidence in their academic abilities (Hughes et al., 2007). Based on such findings, these kinds of high school initiatives—serving as both precursors and currently running programs—have reinforced the need and promise of the ECHS model.

As previously stated, moving students who are at an academic disadvantage into college early cannot be done in isolation. In response to this issue, ECHS have been structured to provide a comprehensive experience, focusing on providing small learning environments with an emphasis on strong student supports. In a report published by the Gollans and Hughes (2008), the authors discussed how dual enrollment programs increasingly prepare a wide range of students for postsecondary education; in turn, highlighting the fact that ECHSs offer extensive academic support services for their students—including tutoring, mentoring, and college success

seminars—to help them be successful in their college-credit courses. As a result of these supports, ECHSs can move students through their schooling more quickly. For example, findings from one pilot school study demonstrated that ECHS students were more likely to take geometry in 9th grade than students who were not selected to attend the ECHS. The benefit of attending an ECHS has been particularly pronounced for low-income students (Glennie, Edmunds, Bernstein, & Purtell, 2009). In addition, the National Center for Restructuring Schools and Teaching (2010) has published evidence that middle college high schools associated with the Middle College National Consortium, one of the grantee organizations in the ECHSI, have succeeded in providing their students with early access to college courses; moreover, that with each succeeding year, higher numbers of students from diverse racial/ethnic and socioeconomic backgrounds have participated in college coursework (Kim & Barnett, 2008).

ECHSI: Organizational Frameworks, Participation, and Progress

In an effort to create and establish early colleges in various school districts across the country, partnerships had to be formed between a variety of national and local organizations. These partnerships included Jobs for the Future (JFF), an entity comprised of 17 intermediary groups that used the foundation's funding to create the schools and local partnerships consisting of institutions of higher education (IHEs), school districts, and other types of local organizations that provided day to day management and oversight (Adelman et at., 2007). The role of JFF encompassed accountability, technical assistance, and the creation of federal, state, and local policy environments that encourage the kinds of blended high school-college experiences represented by ECHSs (Adelman et al., 2007). By 2005, as a result of proper planning, 77 ECHSs were opened.

The organizations mentioned above served as the foundation of the ECHSI itself. Fundamentally, the creation and implementation of a successful ECHS program is dependent upon intermediary groups. They perform a number of functions that are crucial to the success of the program, including (a) identifying promising local partnerships among IHEs, school districts, and other entities; (b) assisting in fostering and solidifying those partnerships; (c) distributing and monitoring the use of funding for start-up and early implementation of the schools; and (d) supporting networking activities for the schools. Usually the IHE partners with the local school district to form an ECHS. However, many combinations between agencies can be facilitated, such as (but not limited to) community organizations and charter school management organizations for Native American tribes. Other combinations can include Middle College High Schools that have adopted the ECHS core principles and a few smaller learning communities located within a comprehensive high school. Similarly, other variations might incorporate considerations regarding the location of ECHSs and whether they partner with a 2-year or a 4- year institution, or both (Adelman et al., 2007). Thus, allowing for more diverse and open-ended partnerships is paramount to establishing ECHSs that include curricula suited to local communities, as well as to provide workforce or university-ready high school graduates. To reiterate, since the conception of the ECHS program in 2002 the number of ECHSs had grown to 77 by 2005, which was more than one-third of the total intended by the foundation. Moreover, the 2005-2006 academic year represents the midpoint of the seven-year initiative (Adelman et al., 2007). Therefore, one or two ECHS inaugural classes of students would have graduated students by the year 2008, with up to two years of college credit or an associate's degree achieved.

As a result of Adelman's evaluation of the implementation of ECHS, it would appear that the vision for the initiative is working. "The ECHSI has come a long way toward developing a

network comprising a new breed of instructional institutions: schools that cross the divide between high school and college education" (Adelman et al., 2007, p. 91). Although data on the efficacy of the ECHS program is foundational in nature, it provides a glance into an apparently successful secondary public education reform model (Adelman et al., 2007, p. 91). Moreover, the data shows proportionally higher enrollments of minority students and similar enrollments of students from low-income families (Adelman et al., 2007, p. 91). In addition, ECHS classes showed evidence of the new 3Rs: rigorous, relevant, and relationship-based instruction; in turn, indicating that the 3Rs-based instruction was less evident in students' college classes than in their previous high school classes (Adelman et al., 2007, p. 91). ECHSs also took the lead in supporting students socially and academically, even for college classes (Adelman et al., 2007, p. 91). The most evident successes of ECHSs that were visited included the positive climates they have established, along with promising preliminary evidence of student outcomes (Adelman et al., 2007, p. 91). For example, ECHSs had a higher average percentage of students scoring proficient on their states' assessments in English Language Arts/Reading and Mathematics than did other high schools in the districts in which they are located (Adelman et al., 2007, p. 91). Further, the mean average daily attendance rate reported by ECHSs in 2005-2006 was 94%. Overall, even in its formative years, the ECHSI program seems to be impacting the development and achievement of its students in a positive fashion.

The Original Five Core Principles of the ECHSI

The original five core principles of the ECHSI program were put forth by the Bill and Melinda Gates Foundation in 2002. With the passage of time and in response to advocates of program refinement, the original core principles have been modified to some degree. The researcher further addresses this topic in the section titled "Early College High School Movement

in North Carolina." Also in that section, Table 3 provides a comparison of the original five core principles (in place from 2002-2008) and the modified core principles (in place from 2008 to the time of this study in 2016). Maintaining the purpose and scope of this section, the following list represents the original five core principles that underpinned the start-up of the ECHSI program, with more detailed discussions of each core principle provided thereafter.

Cole Principle 1

ECHSs serve students from populations typically underrepresented in post- secondary education. The data support the claim that early college schools are diligently working to enroll high percentages of minority and low income students (Berger, Cole, Duffy, Edwards, Knudson, Kurki, & Shkolnik, 2009). According to the data from the early college student information system, Berger et al. (2010) reported that 70% of early college students are students of color, and at least 59% are eligible for free and reduced lunch.

Cole Principle 2

Students earn an associate's degree or two years of college credit toward the baccalaureate while in high school. Partnering with an institution of higher education (IHE) is a defining feature of the ECHSI (Berger et al., 2010). The model's success is predicated on a commitment from both the school district and its higher education partner to work collaboratively to provide early college students with both the academic and social supports needed to be successful in the postsecondary setting (Hooker & Brand, 2009). Approximately 24% of school districts across the nation partner with 4-year institutions, and 11% partner with both 2-year and 4-year institutions (Webb & Mayka, 2011). The type of IHE that a school/school district partners with is important, especially as consideration is given to capitalizing on the "power of place" (Cunningham & Matthews, 2007; Lieberman, 2004; Nodine, 2009), or the physical location of the

ECHS. As of 2008, 50% of the existing early colleges were located on a college or university campus, while 47% operated in freestanding or traditional buildings, and 3% were located on tribal reservations to serve Native American students (JFF, 2010). The fact of attending high school on a college campus has been shown to build a student's identity as a college goer and is associated with helping students build knowledge about the college culture and expectations. The opportunity to learn about college by attending classes on campus, using facilities such as (the gym and the library, and interacting with other college students enables early college students to gain confidence in themselves and their abilities (Hooker & Brand, 2009).

Cole Principle 3

The years to a postsecondary degree are compressed. This core principle is one that was significantly altered from its original intent. The original core principle 2, stipulated that all early college students would earn an associate's degree and/or up to two years of college credit (JFF, 2003). As early college developed and the realities of implementation set in, many schools shifted and made adjustments accordingly. A number of them developed programs of study that allowed some (but not all) students to work towards an associate's degree, while others focused on getting all students at least some college credit albeit not two years' worth (Adelman, Berger, & Cole, 2010). The current principle reflects a modified goal of getting all students at least one year of college credit, a feat that still may prove to be a stretch for many schools. For example, among early college students who completed an Integrated Student Survey administered by JFF during the 2007-2008 academic year, only 61% stated that they had taken at least one college class, and only 73% of students in 2007-08 graduating class reported taking at least one class. This indicates that approximately 27% of students in the graduating class had never taken a college class (Webb & Mayka, 2011).

Finally, to the credit of the initiative, the collective early college class of 2009 graduated 3,000 students from 64 early colleges nation-wide. These students earned an average of 20 or more college credits, and 39% of these students earned at least one year of transferrable credit or an associate's degree (JFF, 2010).

Cole Principle 4

The middle grades are included, or there is outreach to middle-grade students to promote academic preparation and awareness of the ECHS option. It should come as no surprise that given the needs of early college students, formalized support structures are an integral part of the model. Many schools have struggled to strike a balance between offering too much support and teaching students how to access the necessary resources that they need in order to be successful in college (Berger et al., 2008). Helping students to be self-advocates reinforces and builds college readiness skills in the domain of what has been termed college knowledge. It has been shown that the majority of early college high schools offer some formalized support in the areas of literacy skills, research, mathematics, and college life skills courses (AIR & SRI, 2008). The degree to which students are mandated to participate in these formalized academic supports has varied across schools. Additionally, many schools offer students and parents the opportunity to participate in workshops and seminars focused on completing college applications and applying for financial aid. The research is clear that one of the most vulnerable places in the postsecondary pipeline occurs during the transition from high school to college (Kirst, 2004). To lessen the chance that students will be unable to navigate the cumbersome college admissions process, ECHSs seek to provide assistance around the transition process.

Core Principle 5

ECHSs demonstrate the attributes of highly effective high schools. Shannon (2007) asserts there are nine characteristics of highly effective schools. The key attributes of highly effective schools include a clear and shared focus, high standards and expectations for all students, effective school leadership, high levels of collaboration and communication, curriculum, instruction and assessment aligned with standards, frequent monitoring of learning and teaching, focused professional development, supportive learning environment, and high levels of family and community involvement. Additionally, the list of positive educational outcomes at the secondary level, including the ECHS, can be summarized in a few metrics, as these measurable categories are broad in scope. Some of the standard measures for successful secondary student education outcomes include quality standardized performance assessments on such metrics as Grade Point Average (GPA), End of Grade test (EOG), End of Course test (EOC), Advanced Placement (AP), and Standardized Aptitude Test (SAT) or American College Testing (ACT) scores.

Based on the research, the ECHSI has made significant progress in successfully implementing the core principles upon which the early college high school model is based (Adelman et al., 2007). There are many variations in how these schools have been/are structured and operated, but overall there appears to be ongoing adherence to the fundamental goals and values inherent to the original five core principles, from the early years of the initiative up to the present time.

Early College High School Movement In North Carolina

Similar to many states, North Carolina has been dealing with a crisis in public education for a number of years. Of every 100 students who enter ninth grade in a public high school in North Carolina, only 70 graduate within five years. Only 42 of them enroll in college, and only 19

of them complete a two-year or four-year degree within six years of graduating from high school. (Public Schools of North Carolina, 2008, p. 20) Policymakers, practitioners, and business leaders have concluded that this situation is unacceptable and have responded with an extensive public–private effort to redesign high schools in North Carolina to make them more effective for all students.

In 2002, the Bill & Melinda Gates Foundation funded seven grantee organizations to serve as intermediaries in launching the ECHSI in North Carolina. The first responsibility of an intermediary is to assist in brokering local partnerships between institutions of higher education (IHEs)—2-year, 4-year, or both—and one or more other organizations, including (a) school districts, (b) community organizations, (c) tribes, (d) public high schools, and (e) charter management organizations. The resulting partnerships are the bedrock of the ECHSI model, representing an agreement between educational sectors to cooperate in a new approach to blending secondary and postsecondary education for students who might not otherwise consider themselves college material (JFF, 2002).

In 2002, the State of North Carolina New Schools Project (NCNSP) received "funding via the New Schools Project to work with local partners, such as school districts, community organizations, high schools and colleges to open 78 ECHs" as a part of the secondary reform initiative (Adelman et al., 2007, p. 1). The following statement attests to the state's enthusiastic response to the early college high school initiative: "The largest intermediary in the ECHSI, though not funded directly by the foundation, is the North Carolina New Schools Project (NCNSP), which moved quickly to open 75 ECHSs" (SRI International & Air, 2008, p. 11). Out of the top five intermediaries associated with the ECHSI, with respect to the ECHS secondary reform phenomenon in 2006, North Carolina had taken the lead on adoption and long-term

investment of the ECHS institution into their public school system (SRI International & Air, 2008).

Nationwide, the report noted that "only 14 ECHSs graduated students in 2005-06; the remaining five ECHs were 5-year programs that did not yet have a grade 13. Therefore, data shows that the ECHSI is just starting to have a critical mass of ECHSs and students with the full ECHS experience". Furthermore, and most importantly according to the report, "The major outcomes of interest (e.g., graduation rates, college-going rates, and college completion rates) are just starting to be measurable in a large number of ECHSs" (Adelman et al., 2007). Overall, since the Bill & Melinda Gates Foundation's decision to commit to the ECHSI program in 2002, there have been five major research studies published on the education processes and outcomes that address the ECHS as an institution. See Table 2 for study titles and publication information specific to these five reports. Thirty-three ECHSs in North Carolina were included in the aforementioned studies were.

The ECHSI has grown steadily in North Carolina, nurtured by an overarching intermediary, Jobs for Future, as well as the Bill & Melinda Gates Foundation staff. Over time, six intermediaries were added to the original seven NC grantee organizations (intermediaries) that were first established in 2002. As of the 2009–10 school year, the 13 intermediaries had opened over 200 ECHSs around the state. Most of the operating ECHSs are new schools that did not exist before the ECHSI; in other words, 66% of ECHSs originated as new schools in 2007–08. However, for that same school year, 22% were previously existing small schools that became ECHSs. To clarify, 5% were small learning communities created when a larger high school reformed, and 5% were programs within existing high schools. Regardless of whether the ECHS originated as a new school or as a reformulation from a different type of school, another common

Table 2

Five Major Research Studies on the Early College High School Initiative

Title	Author	Publication Year/Publisher
1. Evaluation of the Bill and Melinda Gates Foundation's High School Grants Initiative: 2001-2005 Early College High School Final Evaluation Report	American Institute for Research & SRI International	2006 Bill and Melinda Gates Foundation 2001-2005
2. Evaluation of the Early College High School Initiative: Select Topics on Implementation	American Institute for Research & SRI International	2007 AIR and SRI International
3. 2003-2007 Early College High School Initiative Evaluation: Emerging Patterns and Relationships	American Institute for Research & SRI International	2008 AIR and SRI International
4. Innovations in College Readiness: How Early College High Schools are Preparing Students Underrepresented in Higher Education for College Suggess	Dr. Tad Nodine	2009 Jobs for Future (JFF)
5. A Better 9th Grade: Early Results from an Experiemental Study of the Early College High School Model	SERVE Center at the University of North Carolina Greensboro	2009 University of North Carolina Greensboro

characteristic is that ECHSs are small, with an average of 211 students in 2007–08 (AIR & SRI, 2009).

The ECHSI has been guided by a loose set of core principles (JFF, 2002). Over time, certain aspects of these principles had been debated and modified by individual intermediaries. Approximately five years into the implementation period, all partners to the ECHSI in North Carolina undertook prolonged discussions to articulate and codify a revised set of core principles based not only on shared objectives, but also on their experiences and the fact that the 13 intermediaries had not pursued a monolithic ECHS model (JFF, 2002). Intermediaries ratified the following five revised core principles in 2008:

1. Early college schools are committed to serving students underrepresented in higher education.
2. Early college schools are created and sustained by a local education agency, a higher education institution, and the community, all of whom are jointly accountable for student success.
3. Early college schools and their higher education partners and community jointly develop an integrated academic program so all students earn one to two years of transferable college credit leading to college completion.
4. Early college schools engage all students in a comprehensive support system that develops academic and social skills as well as the behaviors and conditions necessary for college completion.
5. Early college schools and their higher education and community partners work with intermediaries to create conditions and advocate for supportive policies that advance the early college movement. (JFF, 2008, p. 2)

These core principles are central to the concept of an ECHS, as understood by the ECHSI's stakeholders. Table 3 provides a comparative illustration of the original ECHSI core principles and the revised principles adopted by North Carolina ECHSs in 2008.

As of 2016, North Carolina has the largest concentration of ECHSs in the country, with more than 60 ECHSs across the state. The state's model is consistent with the national effort, but it does include some slight variations. For instance, similar to "Smaller Learning Communities," North Carolina's ECHSI program builds on an extensive body of literature showing that smaller school size is associated with a host of positive student outcomes (Cotton, 1996, 2001; Page, Layzer, Schimmenti, Bernstein, & Horst, 2002; Wasley et al., 2000), particularly for low-income or minority students (Howley, 1995; Lee & Smith, 1997). For North Carolina ECHSs, smallness is envisioned as an aspect of school structure that facilitates the creation of a personalized learning environment and a collaborative environment for teachers. Small ECHSs have purposeful structures that engage teachers in collaboration, provide academic support to students who need it, and make it easier to personalize instruction. In addition, they have increased the course expectations for students while also working to incorporate rigorous and relevant instructional practices. This suggests that in order to enable these kinds of positive outcomes, designers of smaller learning communities (and of small schools) should simultaneously consider multiple components, such as the curriculum, instruction, academic and affective support for students, teacher collaboration and support, and establishing logistical supports (Bulson, 2010).

By emphasizing these factors within the design and structure of a smaller ECHS environment, teachers are enabled to engage in more rigorous and relevant instructional practices and to support students as they receive a college preparatory curriculum. NC ECHSs are, thus, purposefully established to incorporate five core design principles: (a) purposeful design, (b)

Table 3

ECHSI Original Core Principles (2002-2008) and NC Revised Core Principles (2008-2016)

Original Core Principles (2002-2008)	NC Revised Core Principles (2008-2016)
1.ECHSs serve students from populations typically underrepresented in post-secondary education	2.ECHs are committed to serving students underrepresented in higher education.
2.Students earn an associate's degree or two years of college credit toward the baccalaureate while in high school	2.ECHs are created and sustained by a local education agency, a higher education institution, and the community, all of whom are jointly accountable for student success
3.The years to a postsecondary degree are compressed	3.ECHs jointly develop an integrated academic program with their higher education partners so all students earn one to two years of transferrable college credit leading to college completion
4.The middle grades are included, or there is outreach to middle-grade students to promote academic preparation and awareness of the ECHS option	4.ECHSs engage all students in a comprehensive support system that develops academic and social skills as well as the behaviors and conditions necessary for college completion
5.ECHs demonstrate the attributes of highly effective high schools	5.ECHs work with initiative partners to create conditions and advocate for supportive policies that advance the early college movement

professionalism, (c) personalization, (d) college readiness, and (e) powerful teaching and learning (Bulson, 2010). Table 3 presents a graphic representation of these core components as well as the expected intermediate and long-term outcomes of North Carolina's model. These five design principles complement and support each other. According to the theory behind the creation of the ECHS in NC, these five principles must be implemented simultaneously. In other words, implementing one by itself will not have the desired effects.

The North Carolina ECHS model, although unique in some aspects, is providing key information about secondary schooling policies and practices, with implications for a broader range of schools. As such, these small schools are serving as educational laboratories, testing out ways of serving a wider range of students more effectively. If we, in education, are serious about trying to ensure that every child graduates from high school adequately prepared for advanced education or the world of work, then we would do well to pay attention to the lessons coming out of these new school models. The current state of ECHS in North Carolina looks promising.

Current Research: Contributing Factors to Successful College Transitions

As the researcher, I also synthesized current literature and research on student perceptions of their high school experiences and how those experiences contributed to their college readiness. In particular, this study focuses on the perceptions of early college students who completed year one of college in order to examine the factors that attributed to their transitions to college.

Within this area of the literature review, I also sought to identify social and academic factors that have been shown to be significant in predicting successful college transitions and outcomes. The three major themes that emerged from the literature are (a) school factors, (b) student factors, and (c) college transition factors. School factors include (a) student empowerment, (b) student-teacher relationships, (c) student-peer relationships, (d) academic

preparedness, (e) academic acceleration, (f) academic supports, and (g) school environment. Student factors include (a) student motivation, (b) self-confidence, and (c) student persistence. Finally, college transition factors and how they address course readiness.

While there has been significant research and focus on why students fail in college, understanding which high school factors contribute to a student's successful transition to college can also be very meaningful for high school and college administrators. Understanding success factors from the point of view of the student can help high school administrators by helping principals strategically plan for programs and activities that will ensure that the students develop the necessary skills. The clarity of the success factors will also help colleges to collaborate with high schools in order to put into place the types of programming that support the development of these success factors as they contribute to increased college retention and attrition. The next several sections address the three major themes, along with their related success factors.

School Factors

School Environment

Galloway and Lasley (2010) conducted a study in which they examined which kinds learning environments best address the perceived needs of 21st century students at the secondary level. They asserted that a paradigm shift is necessary for teachers if they are to help 21st century students reach their full potential (Galloway & Lasley, 2010).

Such a shift would include expectations for an increasingly active role in classroom life and utilization of knowledge and skills to solve problems, along with developing a sense of meaningful questioning that encompasses a broad range of students' academic interests.

Academic Supports

Students learn substantially more when they experience intellectually difficult courses with strong social supports. Students themselves do not separate "caring" teachers from "challenging" teachers. Instead, teachers are described as "caring about what you learn" (Mulford, 2005) or "caring about how you learn" (Bulson, 2010). As one student mentioned, "There are some teachers who take the time to be creative and care about how you learn" (Bulson, 2010). Those teachers who "cared about student opinions" are the same teachers who "actually want you to learn something" and "feel they actually care about your future"(Galloway, 2010, p. 43 number).

Student-Teacher Relationship

There is a wealth of research about teacher-student relationships available to guide policy makers and educational leaders. Yet, as educators face new challenges and new educational circumstances, they will benefit from a greater understanding of how those personal relationships influence student outcomes. Despite the fact that researchers have amassed research over many decades about teacher-student relationships, the landscape constantly changes as new school models emerge and foci shift with the shifts in policy and perceived best practices. Hence, while researchers have studied teacher-student relationships in many settings—particularly in traditional school settings—new openings appear in the research based on a newer model, the ECHS, which is purposed towards promoting relationships as one of its design principles.

In his 2007 meta-analysis of teacher-student relationships, Cornelius-White (2007) posited that students and outside observers were better able to predict teachers' influence on student success than teachers themselves. Other researchers have also suggested that students credit teachers with greater levels of influence over student outcomes than teachers themselves believe

they have (Decker, Dona, & Christenson, 2007; Dryden et al., 1998; Oswald, Johnson, & Howard, 2003). Considering the impact of teachers on student success, the ECHS model promotes the inclusion of deliberate relationship structures through the focus of personalization. The teachers in the ECHS setting interpret the expectation of personalization as a key design principle and make deliberate decisions about how best to actualize that expectation.

Collectively, researchers McDonald and Farrell (2012), Foster (2008), Ongaga (2010), and Thompson and Ongaga (2011) conducted four qualitative studies that analyzed students' experiences in ECHSs, with each study noting the role that teacher-student relationships played in those settings. Foster (2008) found that the ECHS model represented a learner-centered approach to education through which students believed their teachers demonstrated authentic care and commitment to the students' academic success (p. 118). McDonald and Farrell (2012) conducted a qualitative study from which they concluded that the ECHS model met students' needs by providing academic, social, and emotional support that reinforced their "acclimation to collegiate coursework and positively affected their scholarly development and identity" (McDonald & Farrell, 2012, p. 241). In the literature review portion of the published study, they provided an interesting rationale for the growing need to personalize instructional programs, quoting Drew (2001).

Millennials are today's students who possess a need for socialization and are highly sophisticated in networking. Personalization and relevancy are critical elements in their personal and educational lives, and generally, they are confident, social, civic minded, optimistic, and accepting of diversity (as cited in McDonald & Farrell, 2012, p. 220).

A study conducted by Ongaga (2010) revealed three broad themes including (a) family influence, (b) caring relationships, and (c) change. This study emphasized the significance of

building supportive relationships that seek to understand the protective factors leading to students' success, rather than taking the negative approach to understanding why students fail. In general, research suggests that supportive relationships at school are important for successful student outcomes. In fact, the presence of at least one supportive adult was a protective factor that enabled students to achieve academically and develop resilience (Reis, Colbert, & Herbert, 2004, p. 115).

Bulson's (2010) research revealed that students reported mostly positive teacher-student relationships in the ECHS setting. In her study of 75 interview transcripts gathered from 19 different early college high schools in North Carolina, Bulson (2010) found that students, teachers, and principals characterized their experiences in their early college high schools as special and unlike anything they might have experienced in a comprehensive high school. Specifically, this study involved interviews with 19 principals, 37 teachers, and 19 student focus-groups that included anywhere from four to eight students. In this analysis, Bulson (2010) focused particularly on the ECHS design principle of personalization that suggests educators must know students well to help them achieve academically (ncnewschools, 2015). Further, there were three factors that she found significant for the development of positive relationships between both principals and teachers and between teachers and students in the ECHS setting. Bulson (2010) identified the factors as (a) awareness of the importance of relationships, (b) deliberate actions taken by the principal to foster the relationships, and (c) school programs that provide space for the relationships to develop. Evidence appeared throughout the study that most of the participating principals and teachers contributed to supportive relationships. In one school, a principal recognized that helping teachers develop relationships with students required deliberate approaches; thus, the principal was deliberate in training the teachers. This individual stated, "I believe, for me and for every adult in this building and for college instructors, building

relationships with students and with staff, that's the foundation of what we do" (Bulson, 2010, p. 49).

Another theme that emerged from the student focus groups in Bulson's (2010) study involved their comments about the friendships they made at their ECHSs. Many students commented that there appeared to be fewer barriers to developing relationships with different types of students; more notably, with diverse groups of students whom they did not believe they would have befriended if they had attended a traditional high school. The ECHS design principle of personalization suggests that teachers must know their students to be able to teach them effectively (ncnewschools, 2015). The data also suggested that he other design principles may have influenced the positive relationships students reported having with their teachers. The six ECHS design principles (see Table 3) emphasize the importance of focusing on success for every student. The students often reported on the personalized support they received from teachers. Moreover, specifically from the students' perspectives, the importance of having and maintaining appropriate boundaries in a teacher-student relationship was a priority (McHugh et al., 2013; Morales, 2010; Phillippo, 2012), along with the expressed belief that supportive relationships help students build academic confidence (Ongaga, 2010).

All three groups involved in Bulson's (2010) study— students, teachers, and principals— commented on the importance of teachers communicating to their students that they care about them personally and academically, which is a well-supported concept in the existing research on ECHSs (Calabrese, Goodvin, & Niles, 2005; Certo, Cauley, & Chafin, 2003; Foster, 2008; Knesting & Waldron, 2006; McHugh et al., 2013; Murray & Naranjo, 2008; Ongaga, 2010; Thompson & Ongaga, 2011). Two concepts that emerged across all of the study groups were (a) the importance of developing trust between teachers and students (Cornelius-White, 2007;

Corrigan, Klein, & Isaacs, 2010; Gregory & Ripski, 2008; Phillippo, 2012; Van Maele & Van Houtte, 2011) and (b) the importance of getting respect by giving respect (Handford & Leithwood, 2013; Ongaga, 2010).

Moreover, yet another theme emerged from the teacher focus group that did not emerge from the principals and students: the importance of building relationships with parents (Bulson, 2010). According to the teachers, working directly with students and their parents served to enhance their ability to personalize support for students (Bulson 2010; Gewertz, 2009; Oxley, 2008). Respective to their particular schools, teachers described how they supported students as a team and, further, how their positive relationships with both students and parents made it possible for the teacher to push students to work on something that may not have appealed to them (Bulson, 2010).

Several programs emerged from the data as supporting teacher-student relationships. The more commonly mentioned programs included (a) activities outside of school, (b) clubs, (c) advisory programs, (d) seminar classes, (e) tutoring programs, and (f) student-led parent conferences (Boulson, 2010), all fostering positive teacher-student relationships. Such programs and activities correlated with relationship-building around shared interests and experiences, thereby creating spaces for students and teachers to interact—either regularly or sporadically—in settings that are less formal than in a regular classroom course setting. All of these programs provided teachers with opportunities to gain insights into the lives, interests, and abilities of their students. Where the programs existed, the evidence suggested that they positively contributed to the development of supportive teacher-student relationships. Table 4 provides a view of actions intended to promote positive relationships in the early college high school setting as they are associated with principals, teachers, and students.

Table 4

Summary of Deliberate Actions Intended to Promote Relationships by Group

Deliberate Actions Taken by Principals to Promote Relationships	Deliberate Actions Taken by Teachers to Promote Relationships	Behaviors of Teachers that Students Identified as Supportive
Modelled supportive relationships	Learned about students' lives	Provided open access
Maintained visibility in the school	Provided students access to teachers	Helped
Provided open access to teachers and students	Initiatied support for students in need	Provided clarity with work
Sought feedback	Conducted individual conferences with students	Recognized different learning styles
Trained teachers about relationships	Communicated with parents	Initiated support for students in need
	Collaborated with other teachers to monitor students	Communicated care
		Maintained high expectations

Early colleges are clearly a key factor in *some* students' satisfaction and success as indicated by recent studies focused on student perceptions of their high school experiences leading to their college transition experiences. Moreover, it is clear from the various studies discussed that teachers have been the driving force behind these students' experiences of success. The positive student-teacher relationship was defined as involving levels of respect, trust, caring, and fairness that need to exist in interactions between students and teachers (Bulson, 2010). In Ramsey's (2012) study, all of the students acknowledged that the teachers at the high school were a source of support**.**

Student-Peer Relationships

Sociologists in education define a peer group as a group of people who share special characteristics such as gender, age, race, or social status (DeMarrais & LeCompte, 1995). Research has proven that peer support has significant power to promote student learning and to develop the necessary social skills that young people need to be successful in college (Lerner & Brand, 2007). Ramsey-White (2012) purported that students found ECHS classes much harder without the support of other early college students. The support from other students came in many forms. For example, when students missed classes, they had someone they knew who would be there to get the information and share it with them at a later time. Students also relied on each other to help clarify discussions and concepts from certain classes that may not have been well understood.

College Readiness

The transition between high school and college holds many new rules and opportunities for students. The cultural and social expectations in college are often very challenging, especially as students discover that most of the rules they had learned during K-12 education are either

"discarded or modified drastically" (Conley, 2007, p. 4). As a feature of college transition, course readiness is defined as the level of preparation a student needs in order to enroll and succeed—without remediation—in a credit bearing general education course at a postsecondary institution (ACT, 2005; Conley, 2007; Hooker & Brand, 2009; Wiley et al., 2010). The term "postsecondary institution" is meant to include the full range of educational and, in some cases, work-related experiences available to a student following graduation from high school. The experiences include, but are not limited to, matriculation in two-year and four-year institutions, as well as enrollment in technical and trade schools that provide coursework leading to industry or apprenticeship certifications (Conley, 2007; Hooker & Brand, 2009; Wiley et al., 2010).

Over the past few decades there has been a significant increase in the number of students enrolling in college there are still considerable disparities in the college enrollment rates for minority students, students who are English language learners and students from low socioeconomic backgrounds (Adelman, 2006; Brand, 2005; Choy, 2001; Martinez & Kloptt, 2005; Pitre & Pitre, 2009; Roderick, Nagaoka, & Coca, 2009). College readiness is operationalized as the level of preparation a student needs in order to enroll and succeed—without remediation—in a credit bearing general education course at a postsecondary institution (ACT, 2005; Conley, 2007; Hooker & Brand; 2009; Wiley et al., 2010).

Risks of Remediation

College ready students should not have to take any type of remedial coursework upon enrollment in their postsecondary institution. Students who are required to take learning support or remedial classes and/or students who fail an entry level course are more likely to have negative consequences associated with completion (Conley, 2007; Wiley et al., 2010). Enrollment in remedial courses contributes to students having to extend the time needed to complete their

college degree and increases the probability that they will not graduate from college (Adelman 1999; Wirt, Choy, Rooney, Provasnik, Sen, & Tobin, 2004).

The National Center for Education statistics (2004) reports that only 17% of students who have to take one remedial class receive a bachelor's degree or higher and for those students required to take two or more remedial classes, only 20% actually complete their degree. While different sources report different numbers, it is estimated that between 28% and 40% of first-time freshmen in four year institutions enroll in at least one remedial course. For two-year institutions, the percentage of students who are required to take at least one remedial course ranges between 42% and 63% (Wiley et al., 2010). Combined, it is reported that approximately 41% of all first-time freshman students take at least one remedial course (Wirt et al., 2004). It is also reported that nearly 43% of the students who enroll in minority serving institutions (MSIs) take one or more remedial courses because they lack the skills necessary to enroll in entry level credit bearing courses (ACT, 2005). This is significant information to understand given the high percentage of minority students that enroll in MSIs. Overall the percentage of minority students turning to MSIs has steadily increased over the past two decades. In 1984 MSIs accounted for just 38% of minority undergraduate enrollment but by 2004 more than half (58%) of the minority students enrolling in an undergraduate program did so at an MSI (Li & Carroll, 2007). Income, race/ethnicity, and parental education have all been shown to be closely associated with a student's likelihood of having to take a remedial class. A 2004 NCES study examined remedial education along socioeconomic lines and reported that 63% of the students in the lowest quintile (low SES) compared to 24.8% in the top quintile (high SES) had to enroll in a remedial course. In that same study, a review of remediation rates respective to race and ethnicity revealed that 61.7% of African American and 63.2% of 42 Hispanic students enrolled in a remedial course, while only

34.6% of White students did so. Not surprisingly, first-generation college attenders are also more likely to enroll in a remedial course than students whose parents had obtained a bachelor's degree (Wiley et al., 2010). Statistically, the consequences of having to enroll in any remedial course can prove detrimental on a student's road to college completion. However, research shows that students who enroll in a reading remedial course are more likely to need an additional remedial course and have a lower likelihood of earning a bachelor's degree. Students who take only a math remedial course are still at risk, but a higher percentage of these students go on to complete their bachelor's degree (Wirt et al., 2004).

Measures of college readiness. In this era of assessment driven mandates attached to the *No Child Left Behind Act of 2009*, more than high stakes tests are required to ensure that high school graduates are prepared to succeed academically and socially in college. Students who have traditionally been underrepresented in the postsecondary environment rely heavily upon their school systems—not only to prepare them academically for college, but also to inform them accurately of their readiness to embark upon their collegiate education journeys. The imperative is for school systems, policy makers, and researchers alike to identify a measureable set of skills and attributes that students need in order to ensure that they will be successful in college (Ramsey-White, 2012). With so much at stake regarding the college readiness of a student, "more and more education initiatives have focused on defining, measuring and improving the college readiness of high school students" (Wiley et al., 2010, p. 2). Recent research on measuring college readiness has revealed that traditional indicators, such as achievement scores, course taking and high school GPA and rank (ACT, 2005; Adelman, 2006; Conley, 2007; Noeth & Wimberly, 2002; Roderick et al., 2009; Wiley et al., 2010), do not tell a an accurate story of how ready for college a student is. Additionally a review of these indicators across racial/ethnic and income lines reveals the

continued disparities that exist for traditionally underrepresented students. To investigate further how best to measure college readiness, a number of different entities have committed both their time and resources to examining exactly what content and skills are necessary to reflect a student's preparedness for college accurately (ACT, 2010; Adelman; Choy, 2001; Conley; Higbee, 2000; Reid & Moore, 2008; SREB, 2010; Warburton et al., 2001).

Conley's 2002 study, *Understanding University Success,* laid the groundwork for developing indices of college readiness that extend beyond an examination of just content knowledge needed for success in college. Over 400 faculty members from 20 research universities came together to collaborate on the project which identified the content knowledge, skills and abilities that students needed to possess in order to succeed in an entry level course at their institution. There was a diverse representation of faculty across disciplines, and all contributed to the development of standards in those courses typically included in the general education courses required during the first two years of college – English, math, natural sciences, social science, foreign language and the arts (Ramsey-White, 2012).

Conley (2007) constructed a multifaceted model of college readiness incorporating factors that are both internal and external to the high school environment. The model incorporates four concentric circles each representing the relevant knowledge and skills that have emerged from the literature and which can be impacted by schools (Conley, 2007). This model of college readiness incorporates a range of both cognitive and noncognitive capabilities that students will need for postsecondary involvement. The research base on the measures of cognitive skills represented by high school academic preparation in core courses, achievement tests and high school GPA and Rank, that students are required to have for college admissions has a long history. Nonetheless, researchers have continued to explore ways to broaden the indices used to evaluate the cognitive

skills and attributes that will better reflect the skills needed to be successful in the 21st century college environment. Conley's model has "key cognitive strategies" at the very core because they represent a foundation which students can build upon. However, the inquiry into cognitive measures has just recently gained greater prominence in the college readiness literature (Thomas, Kuncel, & Crdel, 2007). As the quest to improve access to postsecondary education for underrepresented populations of students has increased, more researchers and decision makers have begun to look at measures beyond standardized testing, high school GPA and courses taken as predictors of college success (Ramsey, 2008). The field of indicators has been expanded to include noncognitive measures, which have been defined by the Institute for Higher Education Policy (IHEP) as "measures used to evaluate characteristics such as adjustment, motivation, and student perceptions, but are not measureable using typical standardized tests" (Ramsey, 2008, p. 2). In Conley's model, these noncognitive measures are found in the facets of academic behaviors and contextual skills and awareness. In practice the facets of the model do not operate exclusively of each other nor are they perfectly nested within each other. Instead, there is a continuous interaction within and between them (Conley, 2007). The model emphasizes the interconnectedness of all four facets and provides a holistic perspective of what it means to be college ready. It provides a framework for prescribing a better set of criteria upon which college admissions can be based.

Key cognitive strategies. Key cognitive strategies represent the requisite skills and knowledge that students need to meet the intellectual demands of college (Conley, 2007, p. 12). These are behaviors developed over time and eventually become the habits by which intellectual activities are carried out (Bernard, 2006; Conley, 2007). The key cognitive skills shown to be most closely associated with success in college are intellectual openness, inquisitiveness, analysis,

reasoning, interpretation, precision and accuracy, and problem-solving. Conley's definitions of these skills are provided below.

Intellectual openness. The student possesses curiosity and a thirst for deeper understanding, questions the views of others when those views are not logically supported, accepts constructive criticism, and changes personal views if warranted by the evidence. Such open-mindedness helps students understand the ways in which knowledge is constructed, broadens personal perspectives and helps students deal with the novelty and ambiguity often encountered in the study of new subjects and new materials.

Inquisitiveness. The student engages in active inquiry and dialogue about subject matter and research questions and seeks evidence to defend arguments, explanations, or lines of reasoning. The student does not simply accept as given any assertion that is presented or conclusion that is reached, but asks why things are so.

Analysis. The student identifies and evaluates data, material, and sources for quality of content, validity, credibility, and relevance. The student compares and contrasts sources and findings and generates summaries and explanations of source materials.

Reasoning (argumentation, proof). The student constructs well-reasoned arguments or proofs to explain phenomena or issues; utilizes recognized forms of reasoning to construct an argument and defend a point of view or conclusion; accepts critiques of or challenges to assertions; and addresses critiques and challenges by providing a logical explanation or refutation, or by acknowledging the accuracy of the critique or challenge.

Interpretation. The student analyzes competing and conflicting descriptions of an event or issue to determine the strengths and flaws in each description and any commonalities among or distinctions between them; synthesizes the results of an analysis of competing or conflicting

descriptions of an event or issue or phenomenon into a coherent explanation; states the interpretation that is most likely correct or is most reasonable, based on the available evidence; and presents orally or in writing an extended description, summary, and evaluation of varied perspectives and conflicting points of view on a topic or issue.

Precision and accuracy. The student knows what type of precision is appropriate to the task and the subject area, is able to increase precision and accuracy through successive approximations generated from a task or process that is repeated, and uses precision appropriately to reach correct conclusions in the context of the task or subject area at hand.

Problem-solving. The student develops and applies multiple strategies to solve routine problems generate strategies to solve non-routine problems, and apply methods of problem solving to complex problems requiring method-based problem solving. These key cognitive strategies are broadly representative of the foundational elements that underlie various "ways of knowing."

Key content areas. The strategies listed above coupled with Academic knowledge and skills are often seen as entities of high school instruction and contain traditional indices used to measure college readiness (Roderick et al., 2009). In addition the combination of these two facets forms the solid foundation upon which a student must build in order to be successful in college. Mastery of academic knowledge, or what we know as core content knowledge (English, mathematics, science, social studies, foreign languages, and the arts) occurs at the intersection of a student's ability to manifest as many key cognitive strategies as possible and the creative and relevant pedagogy of the classroom instructors. Conley purposefully differentiates between academic knowledge and academic skills. Academic skills are not content specific, instead they involve a student's ability to write and reason analytically across disciplines. Different

researchers may include academic skills, such as writing, in their designations of college readiness benchmarks. For instance, the American Diploma Project, an initiative of Achieve, Inc., lists such core academic skills as writing, research skills, oral communication, and analytic thinking skills as components of their English standards (American Diploma Project, 2004), yet these are clearly skills that are needed to be successful courses. The ability to write well and reason in college are skills that are highly valued by college professors; however, research among college professors asserts that students come to college least prepared in these areas (Collier & Morgan, 2007). It could be argued that the deficiency in this area stems from the differences in demands for these skills between high school and college. Conley purports that the reading, writing and reasoning requirements specific to college courses typically do not correspond to what students have been required to do in high school (Conley, 2007). Seldom, if ever, would a high school student be required to read greater than five or six books over the course of a 15 week period, yet that is a common practice in college courses (Conley, 2003).

Academic Behaviors

Academic behaviors most associated with success are found in two overarching themes, self-monitoring and study skills. These constructs encompass a range of attributes that exemplify a student's self-awareness, self-monitoring and self-control (Conley, 2007). As well as their adeptness in preparing for and taking tests, managing their time, taking notes in class, using their advisors, communicating with professors and effective use of study groups (Collier & Morgan, 2008; Conley, 2003; Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004). Self-monitoring represents the crucial ability of a student to negotiate through a course independently and assess their competency of the subject matter (Wiley et al., 2010). They must be able to identify where they have gaps in the content knowledge and how to improve in any particular academic task.

These developmental requirements require the acquisition of new behavioral, problem-solving and coping skills that facilitate the transition into the social and academic demands of college (Collier & Morgan, 2008; Roderick et al., 2009). College knowledge, the last facet to be discussed, reveals the information and resources that students need in order to access college. The college admissions process, especially the processes of applying for financial aid, has been described extensively as a barrier to the postsecondary environment, especially for underrepresented students (Collier & Morgan, 2008; Reid & Moore, 2008; Roderick et al., 2009). While the process of applying to college may be a challenge for many students, first generation college attenders, who do not have the benefit of parental experience in this area, are often the most disadvantaged in this area (Choy, 2001; Reid & Moore, 2008; Warburton et al., 2001). How students come to know and understand the necessary steps to take regarding collection selection, admissions, financing their education and the college culture may very well be tied to their access and utilization of social capital. Social capital is an asset which is rooted in social relations (Bordieu, 1985; Coleman, 1999; Farmer-Hinton & Adams, 2006; Lee & Croninger, 1999) and which has the potential to increase and or improve life outcomes for individuals. For students from underrepresented demographic groups, access to social networks and relationships within those networks may be the difference between their being able to go to college or not, irrespective of their academic abilities.

In a 2009 study conducted by Roderick, Nagaoka, and Coca on college readiness in urban high school students, the authors provide compelling evidence that a lack of college knowledge accounts for some portion of the disparity in college readiness by income, and race/ethnicity. They also suggest that improved college knowledge may be of particular relevance in the high school reform movement. The early college high school initiative is poised to effectively address

this issue of improving a student's college knowledge prior to their enrollment in the traditional college environment. Early college programs from their very first interaction with their students convey high expectations for college. Additionally, early college students are enrolled in college courses on college campuses sometimes as early as the 7th grade, thereby providing practical real-life experience of what it means to meet college expectations and to learn college culture (Nodine, 2009). Improving college readiness must continue to have prominence in the educational reform arena. All students, including those who upon graduating from high school may opt to enter the workforce instead of attending college, must leave high school confident in their ability to succeed academically and socially in a postsecondary environment. To meet the 2020 national education goals, there can be no hesitancy in our efforts to support high schools with implementing strategies proven to improve college readiness competencies and skills. While there are many high school reform efforts currently focused on increased access and success for traditionally underrepresented students, the early college school model is the focus of this study and stands to make a significant contribution towards helping our country to reach this goal.

Summary of the Literature Review

In this review of the literature, as the researcher, I emphasized research related to the following topics in the given order:

1. Historical Review of the Early College High School Initiative
2. Five Core Principles of an Early College High School Program
3. Early College High School Movement in North Carolina
4. Review of the Literature

Of significance, the literature provided a window into the history of early college high schools in order to provide a basis, as well as a better understanding, of how the Josephine Dobbs

Clement Early College High School is located within the national model. In addition, in a follow-up section titled "Current Research: Contributing Factors to Successful College Transitions," I will discuss studies addressing the success factors indicated in the early college high school to college transition process.

The transition from high school to college is difficult for many young people. Students often stumble without the proper preparation and support. Based on students' perceptions, it appears that their early college high school teachers have been instrumental in helping to develop key college readiness skills. Furthermore, Nakkkula and Foster (2007) report that success in college coursework in the high school setting has resulted in a positive effect on students' views of themselves as learners and as future college students. At the same time, the literature supports the contention that there are a host of non-cognitive skills that students need to be successful in college (Ramsey, 2008). Perseverance, motivation, and the ability to adjust to changing circumstances (Hooker & Brand, 2009) are listed as a few of them.

Although the idea of earning college credit while still in high school is not new, the ECHS model differs from other models (e.g., dual enrollment, Advanced Placement, middle colleges) in several ways (Born, 2006; Lieberman, 2004). To date, most of the research on the ECHS model focuses on intermediate and long-term academic outcomes for ECHS students, such as (a) GPA, (b) standardized test scores, and (c) number of college credits earned. While such large-scale studies are important, especially in an era of data-driven accountability measures (National Research Council, 2002), qualitative studies that foreground the voices of students and focus on the process of ECHS attendance, in addition to the outcomes of ECHS attendance, are critical. As such, although a growing body of research offers meaningful conclusions about the ECHS model, emphasis on the ECHS student experience is yet lacking.

This study is intended to contribute to the gap in ECHS research specific to the student perspective. The purpose of the following chapter is to articulate the research design to answer the following research questions:

1. What are the success factors of the early college high school that indicate student readiness for college?
2. What are former ECHS students' perceptions of success factors necessary for college readiness?
3. What has led these ECHS graduates/study participants to identify specific success factors as effective to their first year in college?

CHAPTER III: METHODOLOGY

The aim of this study was to identify factors that influenced former ECHS students' perceptions of their readiness for college. Within this overarching purpose, I aimed to describe how their academic, social, and emotional experiences—specific to their enrollment at the J.D. Clement ECHS—prepared these students for the successful completion of their first year of college. This study used the Q methodology research method—a mixed-method approach— to both explore and measure recent ECHS graduates' perceptions, attitudes, and beliefs concerning their experiences at an ECHS, illuminating how those experiences correlated to their successful completion of the first year of college.

In this chapter, I will provide an explanation of Q methodology, including its phases, processes, and protocols. Further, I will address the recruitment and selection of study participants, setting, study-specific materials and instrumentation, and other research procedures leading to data collection and analysis. Additionally, as part of this chapter's focus on research design and methodology, I have included a table of Q statements to be used in the study. The Inquiry process will be utilized to study the beliefs, attitudes, and viewpoints of ECHS graduates regarding college readiness. Table 5 presents a graphic organizer of how the research questions fit into the data collection process.

Rationale for Research Approach

Through this study, I sought to identify and understand factors that have influenced students' perceptions of their readiness for college; further, to describe how their academic, social, and emotional experiences at the ECHS prepared them for successful completion of their first year of college. Thus, to best explore the research questions developed for this study, I needed to identify and select a research method that measures, quantifies, and analyzes individual

perceptions and beliefs about a specific topic; in this case, the topic of college readiness. Furthermore, relative to the study's focus on a racially and culturally diverse study sample, Q methodology represents a particularly appropriate and culturally relevant way to engage marginalized communities in data collection and dialogue. It is a powerful tool for understanding values, attitudes, and perspectives because it serves to empower and bring forth the voices of participants often neglected by traditional evaluation approaches. Moreover, Q methodology emphasizes participant involvement and contribution at each stage of the research and evaluation processes (Militello, Janson, & Tonnissen, 2016). Ultimately, I identified Q methodology as an ideal research method for studying the perceptions, beliefs, and viewpoints of study participants, thus serving as the subjective/ qualitative component of this research process as it is located within the methodology's quantitative frameworks

Q methodology made its first appearance in 1935, in the guise of a letter in the journal "Nature." Essentially, Q methodology can be defined as a research method used in social and behavioral sciences to study people's subjectivity. It has been used in research settings to examine how people think about a topic. Consequently, Q methodology frequently engages the attention of the qualitative researcher interested in more than just life measured by the pound due to its combination of strengths from both the qualitative and quantitative traditions . The instrumental basis of Q methodology is the Q sort technique, which conventionally involves the rank ordering of a set of statements from agree to disagree, as completed by study participants. Usually the statements are taken from interviews; hence, they are grounded in concrete existence.

The Q methodology emerged as an innovative adaptation of the traditional method of factor analysis (Watts & Stenner, 2012). As defined by Wikipedia, factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially

lower number of unobserved variables called factors. The analysis will isolate the underlying factors that explain the data using a matrix of associations (Brown, 2009). Factor analysis is an interdependence technique. The complete set of interdependent relationship is examined. There is no speculation of dependent variables, independent variables, or causality.

Factor analysis assumes that all the rating data on different attributes can be reduced down to a few important dimensions. This reduction is possible because some attributes may be related to each other. The rating given to any one attribute is partially the result of the influence of the other attributes. The statistical algorithm deconstructs the rating (called raw score) into various components, and reconstructs the partial scores into underlying factor scores. The degree of correlation between the initial raw score and the final factor score is called a factor loading (Brown, 2009). Q methodology is considered a "by–person" factor analysis, providing the opportunity to examine response patterns across individual participants rather than across variables (Militello & Janson, 2012; Paige & Morin, 2014). It further involves the examination of correlations among study participants (i.e., sample) across a set of variables that culminates in a reduction of the participants' many viewpoints to a few *factors* assumed to represent shared feelings, beliefs, opinions, perspectives, or preferences (Newman & Ramlo, 2010). This correlation process can then manifest via any of the four sources of qualitative data identified by Leech and Onwuegbuzie (2008), namely (a) *talk* (i.e., data that are extracted directly from the voices of the participants using data collection techniques such as individual interviews and focus groups); (b) *observations* (i.e., the process of collecting data by systematically watching or perceiving one or more events, interactions, or nonverbal communications in order to address or to inform one or more research questions), (c) *images* (i.e., still [e.g., drawings, photographs] or

moving [e.g., videos] visual data that are observed or perceived), and (d) *documents* (i.e., collection of texts that exist either in printed or digital form).

Because Q methodology involves the use of factor analysis, it has been deemed as representing a quantitative research approach. However, because the study of subjectivity has been associated more commonly with the qualitative research tradition; and because Q methodology typically involves the use of relatively small samples , recently Q methodology has been reframed as representing a mixed methodology (Ernest, 2011; Newman & Ramlo, 2010). Essentially, it involves "a successful combination of the two differing styles of research" (Ray & Montgomery, 2006, p. 3). Simply put, the qualitative component of Q methodology provides a forum for participants to express their subjective opinions, and the quantitative component of Q methodology involves the use of factor analytic data reduction and induction to yield insights regarding the formation of perceptions, opinions, and the like, as well as to generate testable hypotheses (Valenta & Wigger, 1997). Moreover, Q methodology "provides a way to investigate empirically how an individual, separately or as part of a group, thinks about a topic or issue of interest" (Durning, 2007, p. 1,678). At the same time, it provides the mechanisms with which to retain the individual's point of view (McKeown & Thomas, 1988; Newman & Ramlo, 2010).

As noted by Valenta and Wigger (1997), Q methodology research emphasizes the qualitative *how* and *why* people think in the ways that they do. At the same time, the methodology does not count *how many* people think a certain way. Ultimately, the goal of Q methodology is, first and foremost, to uncover different patterns of thought (not their numerical distribution among the larger population). To reiterate, the uniqueness of Q methodology lies in its design as a quantitative model—referring to a set of measurement procedures— that is, yet, specialized to the study of subjectivity (Brown, 1980, 1993). When using Q methodology, the researcher asks

participants to sort a collection of statements related to a topic being investigated in a way that most resembles their perspectives, thereby reinforcing the subjective aspect of this research approach. As such, Q methodology invites participants to make decisions as to what is meaningful, as well as what does and does not have value and significance, from their perspectives on a given subject. Furthermore, this methodology also seeks to define and understand each participant completely and as a whole; that is, as a particular individual in his or her own right (Watts & Stenner, 2012). Stated succinctly, Q methodology is a systematic and rigorous quantitative procedure used to study the subjective components of human behavior relative to a phenomenon of interest (McKeown & Thomas, 2013, p. ix).

In terms of actually conducting a Q methodological study, the researcher must implement the following steps: (a) identify and define the concourse (a set of statements pertaining to a topic of inquiry); (b) select a representative sample of statements from the concourse, known as the *Q sample* or *Q set*; (c) select participants for the study, referred to as the *P-sample* or *P-set*; (d) facilitate a process of card sorts with the study participants, referred to as a *Q sort*; and (e) analyze and interpret the study's findings (Gardner, 2016).

Phase I: The Concourse Theory and Development of the Q Statements

The first step of the Q (methodology) study involves the development of a set of 40 items called the *concourse*. These items evolve from a thorough analysis of information yielded from a literature review covering the topic under study. In general, the concourse can be defined as a set of statements related to a particular object of inquiry or subject matter. Stephenson (1935) noted that a concourse must be governed by simple principles, few in number. Overall, the primary purpose for the development of the concourse is to create a large set of statements that broadly represent different opinions of the group to be studied. In this way, the process seeks to capture

multiple voices in a manner that does not privilege any one voice or source over another, including the assumptions of the researcher or evaluator (Militello et al., 2016). For the purpose of this study, the concourse will focus on ECHS success factors that the literature identified as needed for college readiness.

Typically, the researcher collects statements from academic and popular literature, interviews, participant observations, and focus groups (van Exel & de Graaf, 2005). For this proposed study, I developed 40 statements to represent the Q sample/Q set, to be solicited from 34 ECHS students. My goal for this Q sample process was to provide statements that are representative of the diverse opinions regarding which factors ECHS graduates (after having completed their first year of college) think are most beneficial for success in college. Furthermore, in an effort to provide more feedback and clarity, I conducted a pilot test of the Q sample with a group of ECHS graduates to test protocols and procedures for conducting the Q sort phase of the study. This process involves removing statements that are redundant and editing statements for clarity and brevity. This will provide another opportunity to gain feedback on the clarity of the statements in the Q sample.

Phase II: The Q Sort

Q sorting is so called because the participants in the study are required to sort provided items/statements into a rank order with ranking values (Watts & Stenner, 2012). The Q sort is different from most paper-and-pencil measures, in that the respondent sorts statements (pictures or other material) according to an “agree-disagree” (“pleasure-unpleased”) continuum. Instead of responding with one's agreement or disagreement to each statement, the respondent sorts each statement according to an agree-disagree continuum that shows the relationship between statements. Q sorts are operations of "focalizing attention", under given conditions of instruction,

Table 5

Q Sort Statements for the ECHS Study with Selected Sources

No.	Statement	Selected Sources	Factor
1	Early College High School teachers allow students to participate in the learning process by giving them some latitutde in deciding what they will study and how they will study it.	Newton (2008), and American Institutes of Research & Stanford Research Institute International (2005)	Rigor
2	Early College High School has student-teacher relationships that involve high expectations, mutual respect, responsibility, and personalization.	Cothran & Ennis (2000)	Student-Teacher Relationship
3	Early College High School students think creatively and have the ability to problem-solve, absorb information, and synthesize data.	Berger, Adelman, & Cole (2010), and Edmunds, Bernstein, Glennie, Willse, Arshavsky, Unlu, & Dallas (2010)	Academic Preparedness
4	Early College High School students see themselves as active participants in the postsecondary experience.	Cerrone, Nicholas, & Ramlo (2013), and Berger, Turk-Bicakci, Garet, Song, Knudson, Haxton, et al., & Cassidy (2013)	Teacher Working Conditions
5	Early College High School students express their independence through self- advocacy, completing independent work, and meeting deadlines.	Cerrone et al. (2013), and Berger et al. (2013)	Social Preparedness
6	Early College High School has caring teachers which helps improve my success.	Newton (2008), and American Institutes of Research & Stanford Research Institute International (2005)	Student-Teacher Relationships

Table 5 (continued)

No.	Statement	Selected Sources	Factor
7	ECHS allowed me the opportunity to participate in extra-curricular activities.	Loeb, Elfers, Michael, & Plecki, (2004); Teacher Survey Participant 23, 28, 32, 37, 41	Environment
8	During my first year of college my peers treated me differently because I had graduated from Early College High School.	Berger, Turk-Bicakci, Garet, Knudson, & Hoshen (2014), and Julie, Edmunds, Willse, Arshavsky, & Dallas (2013)	Student –Peer Relationships
9	Early College High School offered me an opportunity to foster a relationship with at least one adult in the building.	Osterman (2000)	Student-Teacher Relationships
10	Early College High School prepared me for the transition to college by helping me to remove some of the admission barriers.	Muratori, Colangelo, & Assouline (2003); and Venezia & Jaeger (2013), and Robbins, Lauver, Le, Davis, Langely, & Carlstorm (2004)	College Readiness
11	Early College High School provided me an opportunity to have a structured college experience.	Woodcock & Beal (2013)	Environment & College Readiness
12	Early College High School provided me an opportunity to take accelerated classes that increased my ability to read, synthesize, and write on the college level.	Born (2006), and Miller & Corritore, (2013)	Academic Preparedness
13	Early College High School reduced my financial barriers by paying for two years of college.	Miller & Corritore, (2013)	Academic Preparedness

Table 5 (continued)

No.	Statement	Selected Sources	Factor
14	Early College High School students are provided an integrated program that allows students to be viewed as college students, not as high school students taking college classes.	Heath & Lewis (2000)	College Transition
15	Early College High School engages all students in a comprehensive support system that develops academic and social skills as well as the behaviors and conditions necessary for college completion.	Born (2006)	Academic Preparedness & Academic Supports
16	Early College High School students are collaborative and have the ability to work with others in teams, groups, and partnership projects.	Woodcock & Beal (2013), American Institutes for Research & SRI International (2006), and Conley & French (2014)	Social Preparedness
17	Early College High School eases the psychological transition between high school and college by providing a comprehensive support system that develops academic and social skills necessary for college completion.	National Association for College Admission Counseling (2009), Eccles, Vida, & Barber (2004), and Born (2006)	Social Preparedness
18	Early College High School students take ownership of their learning, time management, and their development of study habits that will ensure their success.	Woodcock & Beal (2013), Sáenz & Combs, (2015), and Conley (2008)	Social Preparedness

Table 5 (continued)

No.	Statement	Selected Sources	Factor
19	Early College High School teachers deliver rigorous and relevant instruction.	Bernstein, Edmunds, & Fesler (2014), Newton (2008), and American Institutes of Research & Stanford Research Institute International (2005)	Rigor
20	Early College High School students feel comfortable talking with their high school/ college teachers about academic-related issues.	Osterman (2000)	Student Teacher Relationship
21	Early College High School students feel comfortable talking with their teachers about non- academic issues.	Osterman (2008)	Student Teacher Relationships
22	Early College High School students feel academically prepared to enter college.	McDonald & Farrell (2012)	Rigor Academically Preparedness College Readiness
24	Early College High School helped me become more socially engaged with friends.	Boyd et al. (2008); Boyd et al. (2010); Goldhaber, Gross, & Player (2007); and Ronfeldt, Lankford, Loeb, & Wyckoff (2011)	Social Preparedness
25	Early College High School students receive academic support from high school/college teachers.	Born (2006)	College Readiness Student/Teacher Relationships
26	Early College High School students receive support from peers when they need help on class assignments.	Born (2006), and Burke & Sass (2013)	Peer Support

Table 5 (continued)

No.	Statement	Selected Sources	Factor
27	Early College High School has caused me to be goal-oriented.	Sáenz & Combs (2015)	External Factors
28	Early College High School has helped me to assume responsibility for my own learning.	Sáenz & Combs (2015)	Student Empowerment
29	Early College High School has helped me to identify gaps in my content knowledge.	Sáenz & Combs (2015)	School Factors
30	Early College High School prepared me for college level work.	Chisley (2008)	College Readiness
31	Early College High School provided me information and helped me with Financial Aid.	Chisley (2008)	College Readiness
32	Early College High School provided me information about majors available at the College.	Chisley (2008)	College Readiness
33	Early College High School provided me information about the academic supports available on the College Campus.	Born (2006), American Institutes for Research & SRI International (2006), and Schneider (2007)	Academic Preparedness
34	Early College High School provided me information about the required admission entrance exams.	Chisley (2008)	College Readiness
35	The Early College High School program provided me the opportunity to earn college credits while still in high school.	Chisley (2008)	
36	Early College High School students support each other.	Woodcock & Beal (2013)	Peer Support

Table 5 (continued)

No.	Statement	Selected Sources	Factor
37	Early College High School students develop study groups.	Burke & Sass (2013)	
38	Early College High School teachers prepared me for the social/emotional expectations of college.	Sáenz & Combs (2015)	Student Empowerment
39	Early College High School prepared me for the academic expectations of my college professors.	Conley (2008)	College Readiness
40	Early College High School provided me a wide range of extracurricular opportunities that enriched my leadership skills.	Conley (2008)	Social Preparedness
41	Early College High School helped me to understand the need to be persistent to achieve personal and academic outcomes.	Conley (2008)	College Readiness
42	Early College High School helped me to be more confident in my ability to think critically.	Conley (2008)	College Readiness

in which measurement is intended for assessing a person's feelings and beliefs based on self-reference in response to given statements. In Q sorting, the individual may, of course, use judgment, reason, and comprehension—all of which we call or recognize as consciously cognitive processes. Quantification is applied with respect to feelings, beliefs, and self-reference as indicated by the number and correlation of participants' responses. The outcome for any individual is operant factor structure, subject to various laws. Operant factor structure refers to a structure that is indicative of objective properties of communicability of which the person is quite unaware.

In a nutshell, Q methodology is a set of procedures that can be used in developing theory-based research. Whether the researcher incorporates theory into a measure (Q sort) or allows the data to suggest a theoretical explanation, the researcher obtains person-types—or thinking patterns of people—through principles of factor analysis.

Research Setting/Context

This research was conducted at the James E. Shepard library on the campus of North Carolina Central University. The total amount of time to complete this study was approximately two hours.

Study

The study used Q methodology to quantify ECHS graduates perceptions of college readiness. A Q methodology research design provides a visual representation of multiple student perspectives on the success factors of the ECHS contributing to college readiness. As researcher, I have determined that a mixed-method approach, conducted in two phases, was the most useful and effective research method for this study. In Phase 1 of the Q methodology implementation, I relied on a set of Q Statements generated from literature, research, and focus interviews with

students. These statements are referred to as the concourse. The concourse was polished to generate a representative sample of statements known as the Q sample or Q set. The Q set is the tool used to obtain data about the success factors and effectiveness of the ECHS. Phase 2 of the study, is the P-sample or P-set. The P-set was utilized to investigate the perceptions of a group of early college high school graduates who have completed their first year of college. As such, I collected and analyzed student data on academic readiness and student participants' perceptions of academic readiness in order to determine the strength of the relationship between these two variables, as well as to provide a more comprehensive examination of the readiness construct. Further, I examined relationships across the data in order to investigate specific success factors endemic to the ECHS institution as perceived by graduates of ECHS.

Participants

For this study, the P-sample was comprised of 34 former ECHS students currently attending five different University of North Carolina constituent universities locally. Specifically, the researcher recruited participants from a list of recent graduates from the Josephine Dobbs Clement Early College High School, and identified 34 individuals willing to participate in the study. As a condition of participation, the students were required to be currently enrolled in a college or university, to have matriculated within one year of graduating from high school, and to have successfully completed one year—or at least 24 semester hours of college—as a full-time college student. I also sent emails to potential participants requesting their willingness to be part of the study, providing them with information to contact me to schedule an interview.

Data Collection

I met with each participant one-on-one. At the beginning of each meeting, each participant was given a consent form that stated the study's purposes and procedures as well as the

participants' rights. After signing the consent form, I asked each participant to evaluate 42 items/statements, with each item written on an individual card. Based on their perceptions of importance regarding their early college high school experiences in relation to their experiences of transition to college, participants rank ordered each of these 42 items according to an 11-point scale, ranging from (a) "hindered most" (1) to (b) "helped most" (11). As shown in the example grid in Figure 1, participants filled in each solid-lined square with one response to each item.

After sorting the 42 items, each participant completed a demographic questionnaire asking their field of study, gender, race, year in college, attending university, and first-generation college status. Afterwards, I interviewed each participant regarding the items he or she ranked in the extreme columns (1, 2, 3, 9, 10, and 11): (a) columns 1, 2, and 3, indicating items that hindered adjustment; and (b) columns 9, 10, 11, indicating items that helped their adjustment. Interviews were transcribed by the researcher. The interview notes were used mainly to explain why participants perceived certain items positively and others negatively.

Data Analysis

A statistical factor analysis was then performed to identify significant perspectives and the characteristics of each perspective. Additional follow-up interviews were conducted to gain further insights into participant responses. Q methodology data is a data collection analysis tool that fits with participatory action research to rigorously examine subjectivity within a localized domain (Goto, Tiffany, Pelto, & Pelletier, 2008).

Data was analyzed from the Q sorts, both together and separately. The items were rank-ordered according to mean rated value within each group. All data was analyzed using SAS or SPSS statistical software. Data for this study was collected from college students who have completed their first year of matriculation at five colleges in North Carolina (North Carolina

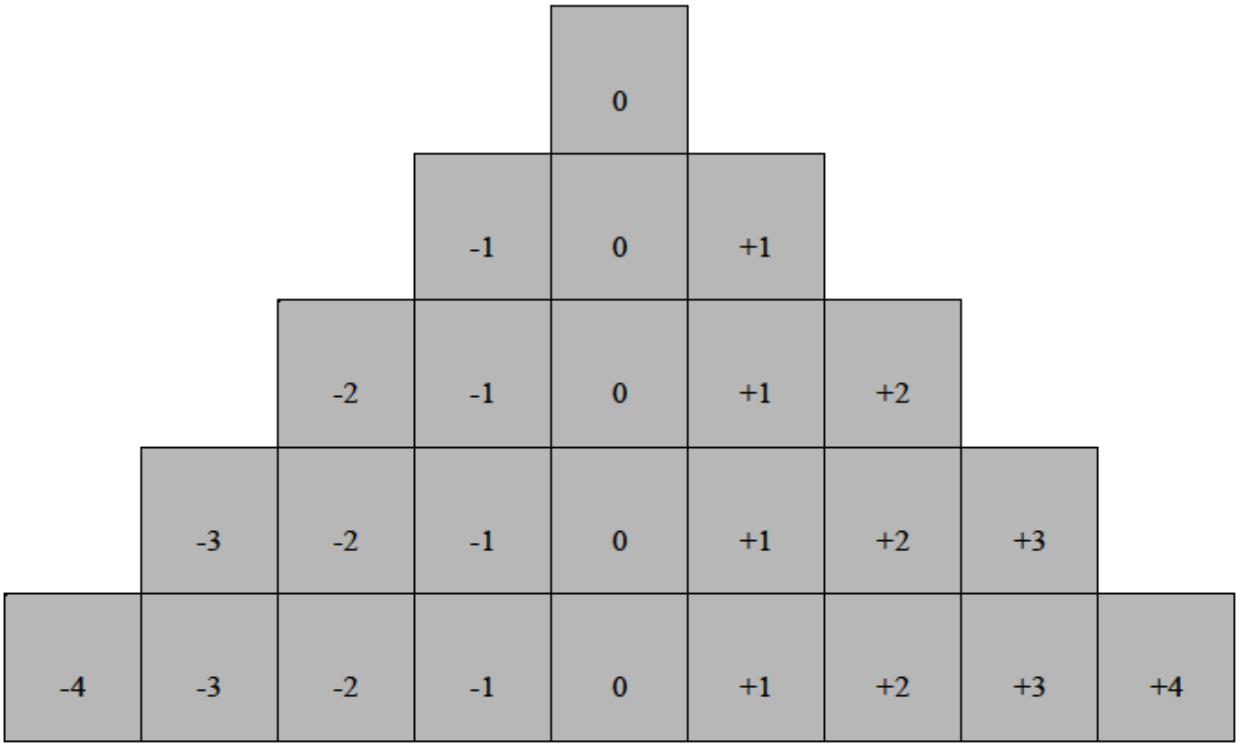


Figure 1. Sample Q Sort response sheet.

Central University, North Carolina State University, University of North Carolina Chapel Hill and North Carolina Agricultural and Technical University). The Q Sort Exercises were completed between December 2016 and January 2017.

Role of the Researcher

As researcher, my role involves multiple capacities and tasks—from formulating the plan, design and implementation of the study, to collecting and analyzing data. My primary purpose is to examine the perceptions and attitude of ECHS graduates specific to their understandings and experiences of college readiness. Particularly significant to my role of researcher is the fact that I serve as the lead administrator (principal) for the targeted study site, an ECHS uniquely situated on the campus of North Carolina Central University. The student sample will be comprised of 34 students who currently attend one of three universities in the surrounding area. Students will be solicited by email to participate in this study, which will be conducted in the library on the campus of NCCU.

Chapter Summary

In this chapter, I have provided a rationale for the selection of Q methodology as the research approach most appropriate to this proposed study's investigation of ECHS graduates and their individually subjective perceptions of the ECHS experience as an effective (or not) launching point in terms of college readiness. Next, I have presented an overview of Q methodology in which I addressed building the concourse, developing the Q sample, facilitating the Q sorts, and conducting the post-sort interviews. In addition, I have explained protocols for conducting the different steps of the research process, as well as the procedures for maintaining the confidentiality of the participants.

In Chapter IV, I will present the statistical findings of the study and the data gathered from the post-sort interviews.

CHAPTER IV: FINDINGS

This study identified and examined the perceptions of graduates of an early college high school after successfully completing year one of college. The purpose of this study was to understand, through the perceptions and views of former students, how the early college high school (ECHS) model is preparing high school students for success in college. The clarification and validation of ECHS success factors will help early college high school administrators put in place the type of programming that support the ongoing development of these success factors.

This study focused on data to answer three research questions:

1. What are the success factors of the early college high school that indicate student readiness for college?
2. What are former ECHS students' perceptions of success factors necessary for college readiness?
3. What has led these ECHS graduate's/study participants to identify specific success factors as effective to their first year in college?

Quantitative and qualitative data were collected to measure, quantify, and analyze recent ECHS graduates' perceptions, attitudes, and beliefs concerning their experiences at an ECHS. The study began by asking current and former students and educators of ECHSs what factors they believed to be most valuable for college preparation and transition. These data were culled to create a set of statements known as the Q sample. The Q sample was "sorted" by graduates of an ECHS. The sorts were factor analyzed and a set of distinct model factor arrays emerged. Finally, a small set of participants from each factor array was interviewed. This chapter provides a comprehensive understanding of the study's findings. The chapter begins with a discussion of the correlation matrix, factor analysis, and factor loadings. Subsequent sections offer insight and

meaning to the PQMethod analytics by presenting information from participants which was used to name and describe each factor. The chapter concludes with a summary of the research study's findings.

Correlation Matrix

The statistical software program PQMethod was used to analyze the data collected from 34 Q sorts. PQMethod providea a quantitative analysis to compute variances, factors, and relationships between and among the study participants based on input from the Q sorts. Principle component analysis was used to find associations, represented as a correlation matrix, among the different Q sorts (McKeown & Thomas, 2013). The analysis of a correlation matrix quantifies the relationship between any two sorts (Watts & Stenner, 2012). Establishing relationships between each sort is a necessary step towards the generation of a factor matrix.

For the current study, the matrix measures 34x34, based on the number of participants in the study (n=34). Table 6 illustrates a truncated version of the correlation matrix. Correlation coefficients ranging from between -1.0 to +1.0 are displayed. A correlation of +1.0 reflects an identical match with each card sorted in the same column on the Q sort distribution grid. A correlation of -1.0 represents an opposite sort between participants with all cards placed in the exact opposite column as another sort. For example, sort number 15 and 34 had relatively high correlation (.62) meaning they sorted in a similar manner. On the other hand, sorts three and 33 (-.34) had very different sorts. As one would expect with very high and very low correlations, sorts two and three did not fall on the same model factors array while sorts 15 and 34 did.

Factor Analysis

Step one of the data analysis process is factor analysis. Factor analysis occurs when Q sort data are organized in meaningful clusters based on factor loadings. Q methodological studies

Table 6

Correlation Matrix Between Sorts (Truncated)

Sorts	1	2	3	…	15	33	34
1	1.0	.23	.35	…	.30	-.13	.40
2	.23	1.0	.05	…	.13	-.06	.38
3	.35	.05	1.0	…	.25	-.34	.27
…	…	…	…	…	…	…	…
15	.30	.13	.25	…	1.0	-.08	.62
33	-.13	-.06	-.34	…	-.08	1.0	.01
34	.40	.38	.27	…	.62	.01	1.0

examine the Q sorts that are factor analyzed data rather than the individual opinion statements between participants (Watts & Stenner, 2012). Statistical characteristics of the sort, combined with post–sort survey questions and interview information from the study participants are used to name the factor.

PQMethod was used for the analysis and produced a solution of eight unrotated factors. Participants with similar perceptions and viewpoints about the most significant success factors of college readiness were grouped together from the eight factors that emerged. The Eigen values of this study's eight unrotated value were all greater than 1.0 The first factor had an Eigen Value of 9.6; the second factor had a value of 2.9; the third had an eigenvalue of 2.6; the fourth had a value of 9.6, and the fifth had an Eigenvalue of 2.9, the sixth 2.6, the seventh 2.3, and the eighth had a value of 9.6. However, a smaller, more distinct number of factors was the goal of the study. As a result, the factors were rotated using Principle Component Analysis with Varimax rotation. This method of factor rotation seeks a mathematically-superior solution that maximizes the amount of variance explained by the extracted factors (Watts & Stenner, 2005, 2012). Factor solutions were run for three, four, and five factors. Table 7 provides a summary of the factor solutions.

A three-factor solution accounted for 48% of variance among the sorts and included 29 of the 34 participants. The highest correlation among these factors was .50. Additionally, there were nine consensus statements identified between the three factors, meaning nearly one-fourth of the statements had very similar placements across all factors. Increasing to four factors raised the percentage of accounted variance to 52% and decreased the participants who loaded on a factor to 27 of the 34. The correlation among factors include .51 between two factors. Four consensus statements were identified with a four-factor solution. A five-factor solution further increased the explained variance level of 58%, but decreased the participants who loaded to 25 of 34. However,

Table 7

Information Used to Determine Factor Rotation

Factor Rotation Solution	Eigen Values	Explained Variance	Number of Participants	Highest Correlation Between Factors
3 Factors	9.6 2.9 2.6	48%	29 out of 34 (85%)	0.50
4 Factors	9.6 2.9 2.6 2.3	52%	27 out of 34 (79%)	0.51
5 Factors	9.6 2.9 2.6 2.3 2.0	58%	25 out of 34 (74%)	0.37
New 5 Factor, Flagged	9.6 2.9 2.6 2.3 2.0	58%	33 out of 34 (97%)	0.51

the correlations among all the factors were very low. Since the purpose of this study was to extract distinct factors, this was an important data point. Finally, there were three consensus statements.

After a collaborative and thorough examination of the factor analysis, a five-factor solution was selected because it offered the maximum variance, the best descriptive factor for the model, and a number of participants could be flagged on factors. For example, Participants 18-001 and 17-002 were flagged on factors because they had high correlations. PQMethod originally did not flag them on specific factors because they were statistically significant on more than one factor. It is important to note that the correlations among factors increased as participants were flagged, however the decision was made to represent as many of the participants as possible and the flagged, five factor solution did so. Table 8 represents the correlation between the selected factors, emphasizing how related the five factors are to each other.

The new flagged, five factor solution accounts for 58% of the variance and 33 of the 34 participants are represented on one of the five factors. Participant 2-0033 did not significantly load on any of the five factors and as a result, the data from that participant was not utilized in the analysis or description of the five factors.

Factor Loadings

A five factor Varimax rotation was utilized to gain a deeper understanding of the five factors. Throught the Varimax rotation method. Each Q sort was loaded on a factor and a correlation score was calculated for each participant. The correlation score is a measure of association between the Q sort of each participant and the model factor array that statistically represents a factor. The correlation score reflects an estimate of position that most closely approximates a perfect Q sort for that specific factor (Mitello & Benham, 2010). For the current

Table 8

Correlations Among Factor Scores

	Factor One	Factor Two	Factor Three	Factor Four	Factor Five
Factor One	1.0000	0.4811	0.4237	0.5143	0.3332
Factor Two	0.4811	1.0000	0.3694	0.3641	0.3117
Factor Three	0.4237	0.3694	1.0000	0.4581	0.2504
Factor Four	0.5143	0.3641	0.4581	1.0000	0.1205
Factor Five	0.3332	0.3117	0.2504	0.1205	1.0000

study, Table 9 specifies how each participant (P sample) loaded on the factors. The participants who loaded significantly on a factor are marked with an asterisk in Table 9. The rotated factors illustrate 53% of the variance with Factor one representing 15%, Factor Two representing 11%, Factor Three representing 13%, Factor Four representing 11% and Factor Five representing 8%.

Factor one had 10 participants who loaded significantly at the $p<.05$ level. There were seven participants who loaded significantly at the $p<.05$ level for Factor Two, Factor Three, and Factor Four. While Factor Five had two participants load significantly at this level. Participant 2-0033 did not significantly load on any of the five fators that emerged as denoted by the double asterisk and as a result, the data from that participant was not utilized in the analysis or description of the five factors. This person's perception was unable to be flagged because of the low correlation with all the factors.

A correlation score was calculated for each participant. The correlation score is a measure of association between the Q sort of each participant and the model factor array that statistically represents a factor. Table 9 specifies how each participant (P sample) loaded on the factors.

To test the strength and statistical validity of the factors, Humphrey's Rule was employed as an additional measure. This test compares the two highest loadings on a factor to twice the standard error. Humphrey's Rule states that a factor is significant if the cross product of the two highest loadings is greater than twice the standard error ($1/\sqrt{\text{number of statements}}$). Each factor identified through this analysis satisfied Humphrey's rule thus supporting the selection of a five-factor solution (see Table 10).

Q Methodology is built around the production of item configurations or sorts. The five factors that emerged from the data analysis consolidate the 42 statements and 34 participants into five perspectives. Each factor has a model array, a statistically representative sort of the

Table 9

Factor Matrix Using Participants' Q Sorts (Loadings)

Participant	Factor One	Factor Two	Factor Three	Factor Four	Factor Five
18-001	0.1591	-0.0029	0.6531*	0.2342	0.4270
17-002	0.1119	0.0893	0.2147	0.7462*	-0.0427
16-003	0.0183	0.1426	0.0288	0.0668	0.7308*
15-004	0.4514*	0.1006	-0.1005	0.3101	0.4370
14-005	-01532	0.2718	0.5642*	-0.0290	0.0949
13-006	0.3733	0.0686	0.0878	0.4859*	0.0432
12-007	0.5345*	0.1070	0.0946	0.0892	-0.0523
11-008	0.0916	0.3089	0.5112	0.5779*	-0.0078
10-009	0.1184	-0.0707	0.6031*	0.2919	-0.0589
9-0010	0.0711	0.5268*	0.3965	0.1206	0.0856
8-0011	0.3096	-0.0153	0.4022	0.5105*	0.2828
7-0012	0.2210	0.5367*	0.4053	0.2993	0.2016
6-0013	0.1689	0.0123	0.7123*	0.1910	0.1224
5-0014	0.3677	0.1332	0.0194	0.6863*	0.0899
4-0015	0.5946*	0.0887	0.2941	0.0384	0.3343
34-0016	0.1318	0.1755	0.3300	-0.2692	0.5992*
33-0017	0.5963*	0.5677	0.0860	-0.0796	-0.0085
32-0018	0.1339	0.7986*	-0.0447	0.0297	0.1359
31-0019	0.0173	0.5947*	-0.1147	0.1804	0.2247
30-0020	0.4716	-0.0531	0.1458	0.4946*	-0.3707

Table 9 (continued)

Participant	Factor One	Factor Two	Factor Three	Factor Four	Factor Five
29-0021	0.2988	0.0993	0.7164*	0.1672	-0.1309
28-0022	0.7399*	-0.0182	0.2014	0.1498	0.0382
27-0023	0.4978*	0.2954	-0.0279	0.4420	-0.2767
26-0024	0.2079	0.5458*	0.2034	-0.0342	0.1430
19-0025	0.5582*	0.3648	0.2826	0.0650	0.2342
20-0026	-0.2756	0.1845	0.0877	0.6460*	0.2558
21-0027	-0.0222	0.6553*	0.0676	0.1877	-0.0510
22-0028	0.4656	0.5644*	0.3737	0.0836	-0.1697
23-0029	0.4284	-0.0255	0.5566*	0.2831	-0.2680
25-0030	0.5462*	-0.0124	0.0369	0.0895	0.3927
24-0031	0.7623*	0.1792	-0.0737	0.0885	-0.0227
3-0032	-0.0133	0.3948	0.6887*	-0.2472	-0.0458
2-0033**	.02579	-0.1509	0.0979	-0.2640	-0.5498
1-0034	0.5551*	0.1496	0.1725	0.4789	0.2128
% explained variance	15	11	13	11	8

Notes. * p<.05, **This participant did not load on any of the five factors as was unable to be flagged because of the low correlations with all the factors.

Table 10

Humphrey's Rule

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Cross Product of Two Highest Loadings	0.564	0.5233	0.5103	0.3908	0.4379
Standard Error	0.154	0.154	0.154	0.154	0.154
Standard Error x 2	0.308	0.308	0.308	0.308	0.308
Difference	0.256	.2153	.2023	.0828	.1299

participants with that shared perspective. Table 11 presents the placement of each statement across all factors on the continuum of most preferred (+4) to least preferred (-4) in the model factor array.

The current study found five unique perspectives that influenced former ECHS students' perceptions of their readiness for college. The participants describe how their academic, social, and emotional experiences—specific to their enrollment at the J.D. Clement ECHS—prepared them for the successful completion of their first year of college. The five unique perspectives that matter are:

1. Factor One: Caring and Supportive Teachers with High Expectations Matters
2. Factor Two: Being a Collegiate Learner Matters
3. Factor Three: Being Prepared to meet the Academic Expectations of College Matters
4. Factor Four: Having an Academic Mindset Matters
5. Factor Five: Assumming Responsibility for your Own Learning Matters

Factor One: Caring and Supportive Teachers with High Expectations Matters

A total of 10 participants loaded significantly on Factor One. This accounts for 29% of the participants and 15% of the variance. This means that the combined sorts of these 10 participants built the idealized Factor One sort that is represented by the model factor array in Figure 2. The higher the correlation to the factor the more agreement with the factor. For instance, Participants 24-0031 and 28-0022 strongly agreed with the placement of the cards in this Factor One model factor array.

Nine of the participants loading on Factor One were females, and one was a male. Eighty percent of the students who loaded on factor one were African American female participants. The remaining participants were a Hispanic male and a white female. Among the 10 participants, six

Table 11

Statements and Factor Placements

Card	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1	My Early College High School provided students with support with college courses while in high school.	1	3	1	-4	2
2	My Early College High School had programs, processes, and/or staffing in place to check on my academic success.	-1	1	1	0	4
3	My Early College High School provided students and parents information and help about the college application requirements and process.	2	0	0	-3	1
4	My Early College High School helped students identify specific learning strategies that have been successful for them and how to apply them in college settings.	0	-1	2	-2	0
5	My Early College High School gave students opportunities to learn about and practice using various technologies that are useful to them in college.	-2	-4	-1	-2	1
6	My Early College High School provided students with support in developing independent living and other life skills in order to be prepared to attend college.	-2	-2	-2	-2	-1

Table 11 (continued)

Card	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
7	My Early College High School had very high academic expectations for all students.	2	2	3	4	4
8	My Early College High School helped students express their independence through self-advocacy, completing independent work, and meeting deadlines.	3	1	0	2	3
9	My Early College High School had caring teachers who knew about my personal life.	3	-1	2	-2	3
10	My Early College High School offered me an opportunity to foster a relationship with at least one adult in the building.	4	4	0	-4	1
11	My Early College High School provided me an opportunity to have a structured college experience while in high school.	3	4	-1	3	1
12	My Early College High School provided me an opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level.	4	3	4	4	3
13	My Early College High School provided an integrated program that allowed students to be viewed as college students, not as high school students taking college classes.	1	-1	-3	2	1

Table 11 (continued)

Card	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
14	My Early College High School provided students opportunities to work with others in teams, groups, and partnership projects.	0	0	-2	-1	1
15	My Early College High School eased the psychological transition between high school and college by providing a social support system.	1	-1	-3	-1	-3
16	My Early College High School eased the psychological transition between high school and college by providing an academic support system.	1	3	-1	0	-1
17	My Early College High School helped students development of college ready study habits.	-1	-3	1	1	-2
18	My Early College High School delivered a rigorous and relevant curriculum.	0	1	3	4	-1
19	My Early College High School helped students manage time.	0	-1	1	2	-1
20	My Early College High School gave students opportunities to have conversations with teachers about issues of college academic readiness.	-1	2	1	1	-3
21	My Early College High School gave students opportunities to have conversations with teachers about non- academic issues.	4	0	-1	-1	-1
22	My Early College High School made me feel academically prepared to enter college.	2	3	4	3	-1

Table 11 (continued)

Card	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
23	My Early College High School helped me become more socially engaged with friends.	-2	2	-2	-1	3
24	My Early College High School caused me to be goal-oriented.	1	-4	2	1	0
25	My Early College High School helped me to assume responsibility for my own learning.	2	0	2	3	4
26	My Early College High School helped me to identify gaps in my content knowledge.	0	-2	-1	0	-2
27	My Early College High School provided me information about majors available at the college.	-3	-2	0	-1	-4
28	My Early College High School provided me information about the academic supports available on the College Campus	-4	-2	-1	0	-4
29	My Early College High School provided me information about the required admission entrance exams	-1	2	0	2	2
30	My Early College High School supported each other through the development of student study groups.	-2	1	-3	-3	-1
31	My Early College High School teachers prepared me for the social/emotional expectations of college	0	-4	-4	0	-4

Table 11 (continued)

Card	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
32	My Early College High School prepared me for the academic expectations of my college professors.	-1	2	4	1	-3
33	My Early College High School provided me a wide range of extracurricular opportunities that enriched my leadership skills	-3	-3	0	-3	2
34	My Early College High School helped me to understand the need to be persistent to achieve personal and academic outcomes.	3	0	2	2	-1
35	My Early College High School helped me to be more confident in my ability to think critically.	2	1	1	1	0
36	My Early College High School helped me to be more confident in my ability to be a problem solver.	1	-1	-1	0	0
37	My Early College High School provided the type of instruction I encountered in college.	-1	0	3	-1	-2
38	My Early College High School provided me with opportunities to visit a number of college campuses and speak with current college students that look like me	-4	-3	-2	-4	1
39	My Early College High School expected 100% of our graduates to attend college.	2	4	3	3	2
40	My Early College High School helped match me with a college that best suited my academic goals.	-3	-2	-3	-2	-3

Table 11 (continued)

Card	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
41	My Early College High School helped me work through the financial aid process.	-4	1	-4	-3	0
42	My Early College High School helped my parents establish college expectations for me	-3	-3	-4	1	-3

Note. Variance – 5.238; St. Dev. = 2.289.

participants currently attend North Carolina Central University, one attends the University of North Carolina at Chapel Hill, another attends North Carolina State University, one attends the University of North Carolina at Greensboro, and one is attending Meredith College. Ninety percent of the participants attend a state school in North Carolina. Eight of the 10 participants are first generation college completers and all left high school with up to 60 hours of college course credits. Table 12 provides a summary of the characteristics for this group.

Factor One represents what these 10 participants perceive to be success factors of the ECHS that indicate college readiness. As illustrated in Figure 2, statements 10, 12, and 21 placed under the +4 column correspond with the three highest z-scores for this factor.

Table 13 highlights the statements these 10 participants most agreed and disagree with.

Common themes are reflected in the statements sorted by the study participants who loaded significantly in Factor One. These particular participants sorted statements 10, 12, 21, 8, 9, 11, and 34 on the +4 and +3 (Strongly Agree) side of the distribution. The highest–scoring statements regarding ECHS graduates perceptions of college readiness in Factor One contain language such as:

- the early college afforded me the opportunity to foster a relationship with at least one adult in the building (Card # 10);
- the early college provided me an opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level (Card # 12);
- the early college gave students opportunities to have conversations with teachers about non-academic issues (Card # 21);

Table 12

Participants Loading Significantly on Factor One

Participants	Loading	Gender	Race	Attending University	# Years in College	First Generation
1-0034	0.5551	Female	Black	UNC-CH	2	Yes
4-0015	0.5946	Male	Hispanic	NCCU	3	Yes
12-007	0.5345	Female	Black	NCCU	3	Yes
15-004	0.4514	Female	Black	NCCU	3	No
19-0025	0.5582	Female	Black	NCCU	3	Yes
24-0031	0.7623	Female	White	NCSU	3	No
25-0030	0.5462	Female	Black	NCCU	2	Yes
27-0023	0.4978	Female	Black	UNC-G	2	Yes
28-0022	0.7399	Female	Hispanic	NCCU	3	Yes
33-0017	0.5936	Female	Black	Meredith	2	No

Strongly Disagree			No Agree/Disagree				Strongly Agree	
-4	-3	-2	-1	0	+1	+2	+3	+4
28	27	3	2	4	1	7	8	10
38	33	5	17	14	13	22	9	12
41	40	6	20	18	15	25	34	21
	42	23	29	19	16	35	11	
		30	32	26	24	39		
			37	31	36			

Figure 2. Factor One Model sort.

Table 13

Factor One High Positive and High Negative Statements

Score	Card	Statement
+4	10	My Early College High School offered me an opportunity to foster a relationship with at least one adult in the building.
+4	12	My Early College High School provided me the opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level.
+4	21	My Early College High School gave student opportunities to have conversations with teachers about non-academic issues.
+3	8	My Early College High School helped students express independence through self-advocacy, completing independent work, and meeting deadlines.
+3	9	My Early College High School had caring teachers who knew about my personal life.
+3	11	My Early College High School provided a structured college experience while in high school.
+3	34	My Early College High School helped me to understood the need to be persistent to achieve personal and academic outcomes.
-3	27	My Early College High School provided information about majors available at the college.
-3	33	My Early College High School provided a wide range of extra-curricular opportunities that enriched my leadership skills.
-3	40	My Early College High School helped match me with a college that suited my academic goals.
-3	42	My Early College High School helped my parents establish college expectations for me.
-4	28	My Early College High School provided information about the academic supports available on a college campus.

Table 13 (continued)

Score	Card	Statement
-4	38	My Early College High School provided an opportunity to visit a number of college campuses and to speak with current college students that look like me.
-4	41	My Early College High School Helped me to work through the financial aid process.

- the early college helped students express their independence through self-advocacy, completing independent work, and meeting deadlines (Card # 8);
- my early college had caring teachers who knew about my personal life (Card # 9);
- the early college provided me an opportunity to have a structured college experience while in high schoo (Card # 11); and
- my early college helped me to understand the need to be persistent to achieve personal and academic outcomes (Card # 34) .

These participants placed significance of teachers and the role they play, fostering caring life-long relationships, and accelerated classes. The statement with the highest agreement in Factor One is statement 10, "Having a relationship with at least one adult in the building."

During the guided post-sort interviews conducted on Factor One, each participant echoed the belief in building positive teacher/student relationships and stressed the importance and value of having teachers who cared. Participant 24-0031 stated, "I still keep in contact with several of my teachers and they were more than happy to help me. My teachers' fostered discussions that made me want to learn outside the classroom, and I have gotten to talk with them about several issues even if I am not in their classroom" (Post sort interview, March, 2017). Participant 19-0025 echoed the same sentiment regarding relationships. She was quoted as saying, "Building relationships with adults in the building made it easier to build relationships with professors in college. Having people who actually care about you makes school less stressful" (Post sort interview, March 2017). Further, Participant 28-0022 added, "Assuming the role of a college student in a college class gives you a sense of maturity. Some teachers set college expectations in high school classes so we know what to expect in college classes" (Post sort interview, March 2017). Participant 1-0034 highlighted, "All students were held to a higher standard. Teachers

supported all students." She further remarked, "A student is only as good as his or her teacher. We strive to do better when teachers expect better. She closed by saying "By my teachers always having high expectations, I was inspired to always do my best" (Post sort interview, March 2017). Clearly, having caring supportive teachers who set high expectations is a success factor.

Another important theme noted in Factor One is the opportunity to take accelerated classes. Participant 15-004 shared this perspective, "The honors classes taken in high school really prepared me for college and I felt like the early college students knew more than some college students. Participant 33-0017 commented, "Compared to how other students entered college their first year, I noticed it was a little different for me. I did not stress about many of the things they did. The early college high school offered a rigorous and relevant curriculum, that prepared me well" (Post sort interview, March 20017). Participants in this study undoubtedly value the accelerated classes offered at the early college as well as the relationships and supportive teachers.

While the significance of student/teacher relationships and accelerated course offerings are crucial to the success of early college high school students in determining college readiness, it cannot be exaggerated. The common theme for the negative statements for Factor One speak to financial aid/scholarships, opportunities to visit other college campuses, college application requirements, and information about academic supports available on campus. Participants in Factor One did not feel they were supported in the following areas: (Statement 41, -4 column) helped me work through the financial aid process; (Statement 38, -4 column) provided me with opportunities to visit a number of college campuses; (Statement 28, -3 column); provided information about academic supports on college campus (Statement 3, -3 column) provide students and parents information and help about the college application requirements and process.

Participants acknowledged the need for financial aid, scholarships, and more college visits in Factor One. Participant 28-0022 also remarked "Our graduating classes were not able to visit college classes. For some students there is no financial aid. I wish there had been knowledge of other ways to fund college. I had very little help finding scholarships from faculty and we didn't go on many college tours while in high school" (Post sort interview, March 2017).

Participant 15-004 outlined the honors classes taken and how the ECHS prepared her for college. She further stated that the opportunity to visit colleges outside of NCCU was non-existant and there wasn't enough assistance with financial aid and scholarships (Post sort interview, March 2017). The perception and viewpoints shared by the participants collectively disclosed how their beliefs influenced the Q sort for Factor One.

The conviction in which the participants described supportive teachers holding high expectations for all students and accelerated course offerings as the central foundation to the success of ECHS graduates prejudiced the title for this factor, *We Had Caring and SupportiveTeachers with High Academic Expectations.* The participants were in agreement that student/teacher relationships must be fostered and unchallenged while students are in high school if the ECHS is to successfully prepare students for college. As mirrored in the perceptions articulated by the participants, supportive teacher relationships have a direct impact on the success factors of the early college and as such teacher relationships are grave in paving the way for success to occur.

Factor Two: Being a Collegiate Learner Matters

A total of seven participants loaded significantly on Factor Two. This accounts for 21% of the participants and 11% of the variance. This means that the combined sorts of these seven participants built the idealized Factor Two sort that is represented by the model factor array in

Figure 5. The higher the correlation to the factor the more agreement with the factor. For instance, Participants 21-0027 and 32-0018 strongly agreed with the placement of the cards in this Factor Two model factor array.

Five of the participants were females, and two were males. Five of the students who loaded on factor one were African American female participants. The other two participants were African American males. Among the seven participants, six participants currently attend North Carolina Central University, and one attends the University of North Carolina at Chapel Hill, both state schools in North Carolina. None of the seven participants are first generation college completers and all left high school with up to 60 hours of college course credits. Table 14 provides a summary of the characteristics for this group.

Factor Two represents what these seven participants perceive to be success factors of the ECHS that indicate college readiness. As illustrated in Figure 3, statements 10, 11, and 39 placed under the +4 column correspond with the three highest z-scores for this factor.

Table 15 highlights the statements these seven participants most agreed and most disagreed with.

Common themes are reflected in the statements sorted by the study participants who loaded significantly in Factor Two. These particular participants sorted statements 10, 11, 39, 12, 16, 16, and 1 on the +4 and +3 (Strongly Agree) side of the distribution. The highest–scoring statements regarding ECHS graduates perceptions of college readiness in Factor Two contain language such as:

- the early college afforded me the opportunity to foster a relationship with at least one adult in the building (Card # 10);

Table 14

Participants Loading Significantly on Factor Two

Participants	Loading	Gender	Race	Attending University	# Years in College	First Generation
7-0012	0.5367	Female	Black	NCCU	2	No
9-0010	0.5268	Female	Black	NCCU	2	No
21-0027	0.6553	Male	Black	NCCU	3	No
22-0028	0.5744	Female	Black	NCCU	3	No
26-0024	0.5458	Female	Black	UNC-CH	1 ½	No
31-0019	0.5947	Female	White	NCCU	2	No
32-0018	0.7986	Male	Black	NCCU	2	No

Strongly Disagree			No Agree/Disagree				Strongly Agree	
-4	-3	-2	-1	0	+1	+2	+3	+4
5	17	6	4	3	2	7	1	10
24	33	26	9	14	8	20	12	11
31	38	27	13	21	18	23	16	39
	42	28	15	25	30	29	22	
		40	19	34	35	32		
			36	37	41			

Figure 3. Factor Two Model sort.

Table 15

Factor Two High Positive and High Negative Statements

Score	Card	Statement
+4	10	My Early College High School offered me an opportunity to foster a relationship with at least one adult in the building.
+4	11	My Early College High School provided me the opportunity to have a structured college experience while in high school.
+4	39	My Early College High School expected 100% of our graduates to attend college.
+3	1	My Early College High School provided students with support with college courses while in high school.
+3	12	My Early College High School provided me the opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level.
+3	16	My Early College High School eased the psychological transition between high school and college by providing an academic support system.
+3	22	My Early College High School made me feel academically prepared to enter college.
-3	17	My Early College High School helped students development of college ready study habits..
-3	33	My Early College High School provided a wide range of extra-curricular opportunities that enriched my leadership skills.
-3	38	My Early College High School provided me with opportunities to visit a number of college campuses and speak with current college students that look like me.
-3	42	My Early College High School helped my parents establish college expectations for me.
-4	5	My Early College High School gave students opportunities to learn about and practice.

Table 15 (continued)

Score	Card	Statement
-4	24	My Early College High School caused me to be goal-oriented.
-4	31	My Early College High School teachers prepared me for the social/emotional expectations of college .

- the early college provided me an opportunity to have a structured college experience while in high school (Card # 11);
- the early college expected 100% of our graduates to attend college; the early college provided support with college courses while in high school (Card # 39);
- my early college provided an opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level (Card # 12);
- my early college eased the psychological transition between high school and college (Card # 16); and
- my early college provided me with support with college courses while in high school (Card # 1).

These participants placed significance on fostering supportive adult relationships, a structured college experience while in high school, the expectation of being academically prepared for college, academic support, and accelerated classes. The statements with the highest agreement in Factor Two are statements 11 and 39, "Having a structured college experience while in high school" and "the expectation of 100% of graduates to attend college."

During the guided post-sort interviews conducted on Factor Two, each participant echoed the importance of having a structured college experience while in high school and stressed the high expectations for all graduates to attend a four-year college upon graduation. Participant 26-0024 stated, "The point of an ECHS is college readiness. If you don't graduate prepared for college, then you wasted the opportunity. No one wanted to waste that time. We had the positive side of a college experience" (Post sort interview, March, 2017). Participant 7-0012 echoed the same conviction regarding expectations. She was quoted as saying, "I have learned how to work independently, how to create high expectations for myself, and be responsible with everything I

do. Thanks to the ECHS, I see myself as a successful college student" (Post sort interview, March 2017). Further, Participant 31-0019 added, "Whenever I was struggling in a class, I was able to go to my professors during office hours and talk to them about my academic progress. I wouldn't have done this had ECHS had not enforced it. My teachers worked diligently with me" (Post sort interview, March 2017). Participant 22-0028 highlighted, "My ECHS expected so much from us. They were not going to let us fail no matter what. We just couldn't show up not prepared to learn. They helped us with college material which was so very important" He further remarked, "Failure was not an option" (Post sort interview, March 2017). Clearly, having high expectations for college attendance is a success factor.

Another important theme noted in Factor Two is the opportunity to have a structured college experience while in high school. Participant 32-0018 shared this perspective, "I truly did feel like a high school student on a big campus. I had a lot of social anxieties and giving me the opportunity to take classes on campus forced me to change a little. I let go of some of those anxieties and was able to better cope with the world around me. The early college made it easy for me. Participant 9-0010 commented, "The early college provided the books and materials needed for the college courses their students took at no cost. I chose this high school because it was located on a college campus and it had college classes. A lot of things I learned in high school, like MLA format, I found myself using in college" (Post sort interview, March 20017). Participants in this study unquestionably value the structured college experience offered at the early college as well as the expectation of every graduate attending college.

Although the implication of the structured college experience while in high school and the expectation that 100% of all graduates attend college are pivotal to the success of early college high school students in determining college readiness, it cannot be magnified. The common theme

for the negative statements for Factor Two speak to the use of technologies that are useful in college, and opportunities for personal, social, and emotional development. Participants in Factor Two did not feel they were supported in the following areas: (Statement 5, -4 column) opportunities to learn about and practice using various technologies that are useful in college; (Statement 24, -4 column) a connection that caused me to be goal-oriented; (Statement 31, -4 column); prepared me for the social/emotional expectations of college (Statement 17, -3 column) helped students develop college ready study habits.

Participants also acknowledged the need for financial aid, scholarships, and more college visits in Factor Two. Participant 26-0024 also remarked "The ECHS got me ready academically, but we never really talked about life skills. My early college only enrolled me in classes relevant to graduation and college" (Post sort interview, March 2017).

Participant 7-0012 exclaimed, "Although we were considered college students our junior year of high school, we were all still treated and looked at as kids/a high school student." She further stated "We had computers available and smartboards, but those were for the teachers and only are a few of the technologies you see as college students. Even though the technology aspect was limited, I took so many positive experiences from early college and the environment that was created for students" (Post sort interview, March 2017). The perception and viewpoints shared by the participants collectively disclose how their beliefs influenced the Q sort for Factor Two.

The persuasion in which the participants described the structured college experience while in high school and the expectation of 100% of ECHS graduates to attend college as the central foundation to the success of ECHS graduates prejudiced the title for this factor, *I Have a Collegiate Mindset.* The participants were in agreement that the structured college experience while in high school and the expectation of all graduates to attend college must be cultivated and

nurtured while students are in high school if an ECHS is to successfully prepare students for college. As mirrored in the perceptions articulated by the participants, the structured college experience has a direct impact on the success factors of the early college and as such earning college credits and a high school diploma simultaneously are necessary in paving the way for success to occur.

Factor Three: Being Prepared to Meet the Academic Expectations of College Matters

A total of seven participants loaded significantly on Factor Three. This accounts for 21% of the participants and 13% of the variance. This means that the combined sorts of these 10 participants built the idealized Factor Three sort that is represented by the model factor array in Figure 4. The higher the correlation to the factor the more agreement with the factor. For instance, Participants 6-0013, 18-001, and 29-0021 strongly agreed with the placement of the cards in this Factor Three model factor array.

Five of the participants were females, and two were male participants. Three of the students who loaded on factor three were African American female participants. Two participants were Hispanic females, and two were African American males. Among the seven participants, four participants currently attend North Carolina Central University, one attends Howard University, another attends North Carolina State University, and one attends New York University. Eighty percent of the participants are attending state schools in North Carolina. Three of the seven participants are first generation college completers and all left high school with up to 60 hours of college course credits. Table 16 provides a summary of the characteristics for this group.

Strongly Disagree			No Agree/Disagree				Strongly Agree	
-4	-3	-2	-1	0	+1	+2	+3	+4
31	13	6	5	3	1	4	7	12
41	15	14	11	8	2	9	18	22
42	30	21	16	10	17	24	37	32
	40	23	26	27	19	25	39	
		38	28	29	20	34		
			36	33	35			

Figure 4. Factor Three Model sort.

Table 16

Participants Loading Significantly on Factor Three

Participants	Loading	Gender	Race	Attending University	# Years in College	First Generation
3-0032	0.6887	Female	Black	Howard	1 1/2	Yes
6-0013	0.7123*	Female	Hispanic	NCCU	1 1/2	Yes
10-009	0.6031	Male	Black	NCSU	2	No
14-005	0.5642	Male	Black	NCCU	2	No
18-001	0.6531*	Female	Black	NCCU	2	No
23-0029	0.5566	Female	Black	NYU	3	No
29-0021	0.7164*	Female	Hispanic	NCCU	2	Yes

Note. Asterisk indicates participant interviewed after the sort.

Factor Three represents what these seven participants perceive to be success factors of the ECHS that indicate college readiness. As illustrated in Figure 4, statements 12, 22, and 32 placed under the +4 column correspond with the three highest z-scores for this factor.

Table 17 highlights the statements these seven participants most agreed and disagree with.

Common themes are reflected in the statements sorted by the study participants who loaded significantly in Factor Three. These particular participants sorted statements 12, 22, 32, 7, 18, 37 and 39 on the +4 and +3 (Strongly Agree) side of the distribution. The highest–scoring statements regarding ECHS graduates perceptions of college readiness in Factor Three contain language such as:

- the early college provided me an opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level (Card # 12);
- the early college prepared me academically to enter college (Card # 22);
- the early college prepared me for the academic expectations of my college professors (Card # 32;
- the early college had very high academic expectations for all students (Card # 7);
- my early college delivered a rigorous and relevant curriculum (Card # 18);
- my early college provided the type of instruction I encountered in college (Card # 37); and
- my early college expected 100% of all graduates to attend college (Card # 39).

These participants placed significance on accelerated classes, academic preparedness to enter college, and preparation for the academic expectations and rigor of college professors. The statement with the highest agreement in Factor Three is statement 12, “Having the opportunity to

Table 17

Factor Three High Positive and High Negative Statements

Score	Card	Statement
+4	12	My Early College High School provided me the opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level.
+4	22	My Early College High School academically prepared me to enter college.
+4	32	My Early College High School prepared me for the academic expectations of my college professors.
+3	7	My Early College High School had very high academic expectations for all students.
+3	18	My Early College High School delivered a rigorous and relevant curriculum.
+3	37	My Early College High School provided the type of instruction I encountered in college.
+3	39	My Early College High School expected 100% of our graduates to attend college.
-3	13	My Early College High School provided an integrated program that allowed students to be viewed as college students, not as high school students taking college classes.
-3	15	My Early College High School eased the psychological transition between high school and college by providing a social support system.
-3	30	My Early College High School supported each other through the development of student study groups.
-3	40	My Early College High School helped matched me with a college that best suited my academic goals.
-4	31	My Early College High School teachers prepared me for the social/emotional expectations of college.

Table 17 (continued)

Score	Card	Statement
-4	41	My Early College High School helped me work through the financial aid process.
-4	42	My Early College High School helped my parents establish college expectations for me.

take accelerated classes that increased the ability to read, synthesize, and write at the college level."

During the guided post-sort interviews conducted on Factor Three, each participant echoed the belief in taking accelerated classes and the delivery of a rigorous and relevant curriculum. They also stressed the importance and value of high academic expectations and being prepared for college. Participant 6-0013 stated, "After graduation, I began college in the fall and already knew what to expect academically and socially. Even two years later, not much has changed in terms of what I expected fresh out of high school. I do feel our administration strove to get everyone into college. Habits that I learned from my ECHS, I still use today, two years after graduating from high school" (Post sort interview, March, 2017). Participant 18-001 shared the same sentiment regarding high academic expectations and the delivery of a rigorous curriculum. She was quoted as saying, "I do believe that the curriculum was definitely rigorous as a preparation technique and the relevancy made it easier to adapt to. High expectations encourage success and my early college encouraged success" (Post sort interview, March 2017). Further, Participant 29-0021 added, "I was able to understand how to be successful in the college classroom because of the preparation I received in the ECHS. I was able to identify the expectations and how to meet them" (Post sort interview, March 2017). Participant 3-0032 highlighted, "My early college provided me with independence much like I experience in college. I learned from my ECHS that I control my own academic success or failure. 3-0032 further remarked, "My professors at my current university behave in the same manner as my professors from NCCU. I learned how to communicate with my current professors from my experiences at my early college high school" (Post sort interview, March 2017). Seemingly, the delivery of a rigorous curriculum coupled with

high academic expectations from teachers and college professors are viewed as success factors of the early college high school.

Another important theme noted in Factor Three is the opportunity to take responsibility for your own learning. Participant 14-005 shared this perspective, “Doing college level work with such a large support system helped me to task risk with my learning and adapt more without risking my grades” (Post Sort interview, March 2017). Participant 10-009 commented, “I assumed more responsibility for my own learning which set me on the path to become real goal oriented. I knew what I wanted and I knew I had a limited amount of time to achieve those goals while in high school. Once I developed my goals I always put check points in place to make sure I was reaching them” (Post sort interview, March 20017). Participant 23-0029 concluded by saying “My adjustment academically to university life was very smooth. I was able to balance the rigorous work load because of my ECHS. Participants in this study undoubtedly value the rigorous and relevant curriculum and accelerated classes offered at the early college. Thy considered these factors most critical in the academic preparation for college.

While the significance of a rigorous and relevant curriculum, very high academic expectations, and accelerated classes are crucial to the success of early college high school students in determining college readiness, it cannot be inflated. The common theme for the negative statements for Factor Three speak to the need for preparation for the social and emotional expectations of college, the financial aid process, the integration of programs that allowed students to be viewed as college students, the psychological transition between high school and college, and support through the development of student groups. Participants in Factor Three did not feel they were supported in the following areas: (Statement 31, -4 column) teachers prepared me for the social/emotional expectations of college; (Statement 41, -4 column) helped

me work through the financial aid process; (Statement 13, -3 column); viewed as college students, not as high school students taking college classes; (Statement 15, -3 column) psychological transition between high school and college social support system.

Participants acknowledged the need for support for the social/emotional transition, the financial aid process, and support for programming that allows students to be viewed as a college student rather than a high school student taking college courses in Factor Three. Participant 14-005 remarked "So much focus was placed on academic development that practicing social development became a much more difficult task" (Post sort interview, March 2017).

Participant 6-0013 asserted "I do not feel that I was "prepared" for the social/emotional aspects or expectations of college. It was somewhat overwhelming. She further exclaimed "I did not know what my social goals were during high school and I do not feel that I was guided to figure them out. Also, because of my particular legal situation/circumstance, I do not feel that I got adequate guidance through the financial aid process. Financial aid was not applicable to me" (Post sort interview, March 2017). Participant 3-0032 reflected "I had a tough time adjusting socially in college. Though academically prepared, my early college didn't provide me with help socializing in college. We were very much viewed as high school students taking college classes by professors and NCCU students, especially if we performed well. Some professors used that to berate the other students which led to animosity between us and them. Socially, I did not feel acclimated as a regular college student would have." The perception and viewpoints shared by the participants collectively disclosed how their beliefs influenced the Q sort for Factor Three.

The persuasion in which the participants detail the delivery of a rigorous curriculum, teachers and professors having high expectations for all students and accelerated course offerings as the essential foundation to the success of ECHS graduates influenced the title for this factor,

Being Prepared to Meet the Expectations of College Academically Matters. The participants were in agreement that the delivery of a rigorous and relevant curriculum coupled with accelerated classes must be cultivated and deliberate while students are in high school if the ECHS is to successfully prepare students for college. As echoed in the perceptions voiced by the participants, the delivery of a rigorous and relevant curriculum, accelerated classes, and high expectations have a direct impact on the success factors of the early college and as such a rigorous curriculum is crucial in laying the foundation for success to occur.

Factor Four: Having an Academic Mindset Matters

A total of seven participants loaded significantly on Factor Four. This accounts for 21% of the participants and 11% of the variance. This means that the combined sorts of these seven participants built the idealized Factor Four sort that is represented by the model factor array in Figure 5. The higher the correlation to the factor the more agreement with the factor. For instance, Participants 5-0014 and 17-0022 strongly agreed with the placement of the cards in this Factor Four model factor array.

Three of the participants were females, and four were males. Two of the students who loaded on factor four were Hispanic female participants. Two participants were African American males. Two participants were Hispanic male participants and one was an African American female. Among the seven participants, five participants currently attend North Carolina Central University, one attends North Carolina State University, and another attends North Carolina Agriculture and Technical State University, all state schools in North Carolina. Six of the seven participants are first generation college completers and all left high school with up to 60 hours of college course credits. Table 18 provides a summary of the characteristics for this group.

Strongly Disagree			No Agree/Disagree				Strongly Agree	
-4	-3	-2	-1	0	+1	+2	+3	+4
1	3	4	14	2	17	8	11	7
10	30	5	15	16	20	13	22	12
38	33	6	21	26	24	19	25	18
	41	9	23	28	32	29	39	
		40	27	31	35	34		
			37	36	42			

Figure 5. Factor Four Model sort.

Table 18

Participants Loading Significantly on Factor Four

Participants	Loading	Gender	Race	Attending University	# Years in College	First Generation
5-0014	0.6863	Male	Hispanic	NCCU	3	Yes
8-0011	0.5105	Female	Hispanic	NCSU	3	Yes
11-008	0.5779	Male	Hispanic	NCCU	3	Yes
13-006	0.4859	Female	Black	NCCU	2	Yes
17-002	0.7462	Female	Hispanic	NCCU	3	Yes
20-0026	0.6460	Male	Black	NCA&T	2	Yes
30-0020	0.4946	Male	Black	NCCU	3	No

Factor Four represents what these seven participants perceive to be success factors of the ECHS that indicate college readiness. As illustrated in Figure 5, statements 7, 12, and 18 placed under the +4 column correspond with the three highest z-scores for this factor.

Table 19 highlights the statements these seven participants most agreed and disagree with.

Common themes are reflected in the statements sorted by the study participants who loaded significantly in Factor Four. These particular participants sorted statements 7, 12, 18, 11, 22, 25, and 39 on the +4 and +3 (Strongly Agree) side of the distribution. The highest–scoring statements regarding ECHS graduates perceptions of college readiness in Factor Four contain language such as:

- the early college had very high academic expectations for all students (Card # 7);
- the early college provided me an opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college leve (Card # l2);
- my early college delivered a rigorous and relevant curriculum (Card # 18);
- the early college provided me the opportunity to have a structured college experience while in high school (Card #11);
- my early college made me feel academically prepared to enter college (Card # 22);
- the early college helped me to assume responsibility for my own learning (Card # 25); and
- my early college expected 100% of graduates to attend college (Card # 39).

These participants placed significance on high academic expectations, accelerated classes, and the delivery of a rigorous and relevant curriculum. The statement with the highest agreement in Factor Four is statement 7, “Very high academic expectations for all students.”

Table 19

Factor Four High Positive and High Negative Statements

Score	Card	Statement
+4	7	My Early College High School had high expectations for all students.
+4	12	My Early College High School provided me the opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level.
+4	18	My Early College High School delivered a rigorous and relevant curriculum.
+3	11	My Early College High School provided me an opportunity to have a structured college experience while in high school.
+3	22	My Early College High School made me feel academically prepared to enter college.
+3	25	My Early College High School helped me to assume responsibility for my own learning.
+3	39	My Early College High School expected 100% of our graduates to attend college.
-3	3	My Early College High School provided students and parents information and help about the college application requirements and process.
-3	30	My Early College High School supported each other through the development of student study groups.
-3	33	My Early College High School provided me a wide range of extracurricular opportunities that enriched my leadership skills.
-3	41	My Early College High School helped me work through the financial aid process.
-4	1	My Early College High School provided students with support with college courses while in high school.
-4	10	My Early College High School offered me an opportunity to foster a relationship with a least one adult in the building.

Table 19 (continued)

Score	Card	Statement
-4	38	My Early College High School provided me with opportunities to visit a number of college campuses and speak with current college students that look like me.

During the guided post-sort interviews conducted on Factor Four, each participant stressed the critical need for teachers and professors to have high academic expectations, accelerated classes, a rigorous and relevant curriculum, and for students to assume responsibility for their own learning. To extend this perspective, Participant 17-002 reflected, "I felt that I was more prepared to enter the college setting than peers entering their freshman year with me. I was aware of the college expectations and felt familiar with the academic assignments and expectations" (Post sort interview, March, 2017). Participant 11-008 voiced the same opinion regarding expectations and rigor. "My ECHS really did expect all of my classmates to graduate and attend college. The courses were all very rigorous" (Post sort interview, March 2017). Further, Participant 5-0014 added "Because the ECHS allowed us to take college courses during high school, I felt less intimidated when I enrolled at NCCU. Most of the learning in college, the student has to do for him or herself. My high school English teachers were advocates of reading. When you get to college you find out the importance of reading, especially considering professors test you on material they did not teach" (Post sort interview, March 2017). Participant 20-0026 noted "Every teacher and administrator had high expectations. My early college high school went above and beyond to prepare me for college. It did its very best. To elaborate further, Participant 13-006 shared "Many of the classes I took were very hard. But they prepared me for college. My early college helped me focus on my school work to be prepared for my future" (Post sort interview, March, 2017). The participants highlighted the value of having teachers, professors, and administrators who set high expectations as a success factor.

Another important theme noted in Factor Four is the opportunity to have a structured college experience while in high school. Participant 8-0011 shared this perspective, "I was able to gain a small insight into the college experience while in high school. I learned that my education

was my responsibility and my teacher was more like a resource" (Post sort interview, March 20017). Participant 30-0020 uttered, "After maintaining high college grades in high school, I was expected to do the same in college." Participant 30-0020 further remarked, "After being exposed to the rigorous course load at the early college, I knew how to handle college" (Post sort interview, March 2017). The Participants in this study highlighted the value of high expectations, accelerated classes, and a rigorous curriculum as key success factors of an early college high school.

Subsequently, while the implication of high expectations, accelerated classes and rigor are pivotal to the success of early college high school students in determining college readiness, it cannot be distorted. When comparing the highest-ranked statements of the model sort to statements ranked at the lower end of the distribution grid, the common theme for the negative statements for Factor Four speak to providing support with college courses, a relationship with at least one adult in the building, opportunities to visit other college campuses, college application requirements, the development of student study groups, and extra-curricular opportunities that enrich leadership skills. Participants in Factor Four did not feel they were supported in the following areas: (Statement 1, -4 column) support with college courses; (Statement 10, -4 column) relationship with at least one adult in the building provided me with opportunities to visit a number of college campuses; (Statement 3, -3 column); provide students and parents information and help about the college application requirements; and (Statement 30, -3 column) development of student study groups.

Participants acknowledged the need for financial aid, scholarships, and more college visits in Factor Four. Participant 17-002 also remarked "I did not feel comfortable or connected to one adult in the high school. I was not able to build that relationship nor did I know it was allowed.

Participant 17-002 further declared “My early college began to prepare me for the application process late. I was already done ahead of time. I never visited another campus or spoke with anyone about my academic plan” (Post sort interview, March 2017).

Participant 8-0011 declared “I didn’t feel a strong desire to connect with my teachers on a more personal level. I learned that my education was my responsibility and my teacher was more like a resource. 8-0011 added, “We were taking classes alongside college students but there were so many of us in a class, I felt like it was still a high school class” (Post sort interview, March 2017). The perception and viewpoints shared by the participants collectively disclosed how their beliefs influenced the Q sort for Factor Four.

Some of the newest research on student success focuses on an academic mindset. When you compare the conviction in which the participants characterized teachers and professors holding high expectations for all students, accelerated course offerings, and a rigorous curriculum as paramount to the success of ECHS, there is very little overlap, thus influencing the title for this factor, *Having an Academic Mindset Matters.* An academic mindset can be described as a sense of belonging, enjoyment of learning challenges and academic work, finding value from your efforts and knowing you will succeed. As indicated by the participants they believed that the factors sorted at the higher end of the grid are inherent and necessary while students are in high school if the ECHS is to successfully prepare students for college. As mirrored in the perceptions articulated by the participants, high expectations and accelerated curriculum significantly impacts the success factors of the early college and as such are required for success to occur.

Factor Five: Assuming Responsibility for Your Own Learning Matters

A total of two participants loaded significantly on Factor Five. This accounts for 6% of the participants and 8% of the variance. This means that the combined sorts of these two participants

built the idealized Factor Five sort that is represented by the model factor array in Figure 6. The higher the correlation to the factor the more agreement with the factor. For instance, Participants 16-003 and 34-0016 strongly agreed with the placement of the cards in this Factor Five model factor array.

Both participants were females. One of the students who loaded on factor five was an African American Female and the other participant was an Asian female. Among the two participants, one participant currently attends North Carolina Central University and one attends the University of North Carolina at Chapel Hill. Both are state schools in North Carolina. Both participants are first generation college completers and both left high school with up to 60 hours of college course credits. Table 20 provides a summary of the characteristics for this group.

Factor Five represents what these two participants perceive to be success factors of the ECHS that indicate college readiness. As illustrated in Figure 6, statements 4, 7, and 25 placed under the +4 column correspond with the three highest z-scores for this factor.

Table 21 highlights the statements these two participants most agreed and disagree with.

Common themes are reflected in the statements sorted by the study participants who loaded significantly in Factor Five. These particular participants sorted statements 2, 7, 25, 8, 9 12, and 23 on the +4 and +3 (Strongly Agree) side of the distribution. The highest–scoring statements regarding ECHS graduates perceptions of college readiness in Factor Five contain language such as:

- the early college had programs, processes, and/or staffing in place to check on student's academic success (Card # 2);
- the early college had very high academic expectations for all students (Card # 7);
- my early college helped me to assume responsibility for my own learning (Card # 25);

Table 20

Participants Loading Significantly on Factor Five

Participants	Loading	Gender	Race	Attending University	# Years in College	First Generation
16-003	0.7308	Female	Black	NCCU	2	Yes
34-0016	0.5992	Female	Asian	UNC-CH	2	Yes

Strongly Disagree				No Agree/Disagree			Strongly Agree	
-4	-3	-2	-1	0	+1	+2	+3	+4
27	15	17	6	4	3	1	8	2
28	20	26	18	24	5	29	9	7
31	32	34	19	35	10	33	12	25
	40	37	21	36	11	39	23	
	42		22	41	13			
			30		14			
					38			

Figure 6. Factor Five Model sort.

Table 21

Factor Five High Positive and High Negative Statements

Score	Card	Statement
+4	2	My Early College High School had programs, processes, and/or staffing in place to check on my academic success.
+4	7	My Early College High School had very high academic expectations for all students.
+4	25	My Early College High School helped me assume responsibility for my own learning.
+3	8	My Early College High School helped students express independence through self-advocacy, completing independent work, and meeting deadlines.
+3	9	My Early College High School had caring teachers who knew about my personal life.
+3	12	My Early College High School provided me the opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college level.
+3	23	My Early College High School helped me become more socially engaged with friends.
-3	15	My Early College High School eased the psychological transition between high school and college by providing a social support system.
-3	20	My Early College High School gave students opportunities to have conversations with teachers about issues of college academic readiness.
-3	32	My Early College High School prepared me for the academic expectations of my college professors.
-3	40	My Early College High School helped match me with a college that best suited my academic goals.
-4	27	My Early College High School provided information about majors available at the college.
-4	28	My Early College High School provided information about the academic supports available on the college campus.

Table 21 (continued)

Score	Card	Statement
-4	31	My Early College High School teachers prepared me for the social/emotional expectations of college.

- the early college helped students express their independence through self-advocacy, completing independent work, and meeting deadlines (Card # 8);
- my early college had caring teachers who knew about my personal life (Card # 9);
- my early college provided me an opportunity to take accelerated classes that increased my ability to read, synthesize, and write at the college leve (Card # 12);
- the early college gave students opportunities to have conversations with teachers about non-academic issues (Card # 23);

These participants placed significance on programs, processes, and staffing, high academic expectations, and students assuming responsibility for their own learning. The statement with the highest agreement in Factor Five is statement two, "Programs, processes, and/or staffing in place to check on student's academic success."

During the guided post-sort interviews conducted on Factor Five, each participant echoed the belief in having programs, processes, and staffing in place to meet the academic needs of students and stressed the importance and value of having teachers who held high academic expectations as well as students taking responsibility for their own learning. Participant 16-003 stated, "During my tenure at the early college high school expectations for students were always high and there were many dedicated teachers that wanted to see us succeed, especially if you fostered a relationship with a few of them" (Post sort interview, March, 2017). Participant 34-0016 echoed the same sentiment regarding relationships, saying "The small student body allowed students to form tight relationships with at least one teacher" (Post sort interview, March 2017). Further, she added, "Clearly, having caring supportive teachers who set high expectations is a success factor.

Another important theme noted in Factor Five is the wide range or extracurricular opportunities that enriched leadership skills. Participant 34-0016 shared this perspective, "My early college high school had a Student Government Association, Art Club, Yearbook Club and other clubs that were student lead. These extra-curricular activities enriched my leadership skills" (Post sort interview, March 2017). Participants in this study undoubtedly value the programs, processes and staffing, in addition to owning their own learning.

While the significance of having programs, processes, and staffing in place, high academic expectations, and assuming responsibility for your own learning are crucial to the success of early college high school students in determining college readiness, it cannot be exaggerated. The common theme for the negative statements for Factor Five speak to information about majors available in college, information about academic supports available on the college campus, and the social/emotional expectations of college. Participants in Factor Five did not feel they were supported in the following areas: (Statement 27, -4 column) information available about majors at the college; (Statement 28, -4 column) information about the academic supports available on the college campus college; (Statement 15, -3 column) psychological transition social support system; (Statement 32, -3 column) prepared for the academic expectations of college professors.

Participants acknowledged the need for the availability of more academic supports on campus, more information about possible majors or areas of study, a psychological transition support system and the academic expectations of college professors in Factor Five. Participant 16-003 remarked "Personally speaking, I struggled my first two years of college and even taking college courses at NCCU did not prepare me for the classes at my current university; especially coupled with social aspects. Additionally, I wish there was a more prominent push to completing school at NCCU and more information about majors and academic supports at NCCU" (Post sort

interview, March 2017). Participant 16-003 further added "The psychological transition to college is more than having an academic support system. It also involves mental and emotional factors. Going from a small school where you've become accustomed to excelling to a larger school where you may encounter your first failure or experience of not excelling is tough" (Post sort interview, March 2017).

Participant 34-0016 exclaimed "The primary focus at the early college high school was academic excellence, but a lot of social/emotional aspects of college were neglected in the program" (Post sort interview, March 2017). The perception and viewpoints shared by the participants collectively disclosed how their beliefs influenced the Q sort for Factor Five.

The persuasion in which the participants described programs, processes, and staffing in place to ensure their academic success, teachers holding high expectations for all students, and students taking responsibility for their own learning course as the central foundation to the success of ECHS graduates prejudiced the title for this factor, *I am Responsible for My Own Learning.* The participants were in agreement that programs, processes, and staffing must be in place and unchallenged while students are in high school if the ECHS is to successfully prepare students for college. They also agreed that having high expectations and owning your own learning is also essential. As mirrored in the perceptions articulated by the participants, effective programs, polices, processes, and staffing have a direct impact on the success factors of the early college and as such are critical in paving the way for success to occur.

Conclusion

Chapter 4 presented an analysis of the data. Data were collected from 34 graduates of an early college high school after successfully completing year one of college regarding what they perceive to be success factors of the ECHS that indicate college readiness. Additionally, the

clarification and validation of ECHS success factors will help early college high school administrators put in place the type of programming that supports the ongoing development of these success factors.

A combination of quantitative and qualitative data sources was used to gain understanding about ECHS graduate's perceptions and beliefs concerning success factors of the ECHS that indicate college readiness. First, Q sorts were completed, and a factor analysis was used to compute the statistical data from the Q sorts. Five distinct factors emerged, which were presented and discussed in detail in this chapter; these include: (a) Caring and Supportive Teachers with High Expectations Matter, (b) Being a Collegiate Learner Matters, (c) Being Prepared to meet the Expectations of College Academically Matters, and (d) Having an Academic Mindset and Assuming Responsibility for your Own Learning Matters. Post-sort interviews were conducted with a sample of participants who loaded significantly on each of the five factors to further explore graduate's perceptions and opinions ECHS success factors.

Chapter 5 explores the implications of the study's findings. It begins with a summary of the findings, and identifies connections of the findings to the literature. Additionally, Chapter 5 discusses implications of the study for policy, future research, and educational practice.

CHAPTER V: DISCUSSION AND IMPLICATIONS

Introduction

This final chapter of the dissertation restates the research problem and reviews the major methods used in the current study. The chapter begins with a reexaminaition of the results through the lens of the extant literature previously examined in Chapter 2. Next, the factors are explored through their commonalities. Finally, the implications of the study are examined.

The study relied chiefly on a set of Q statements generated from the literature review. The study began by asking current and former students and educators of ECHSs which factors they believed to be the most valuable for college preparation and transition. These data were extracted to create a set of statements known as the Q sample. The Q sample was "sorted" by 34 graduates of an ECHS. The sort was then Q factor analyzed and a set of specific model factor arrays emerged. Finally, a small number of participants from each factor array were interviewed. The study generated five unique claims or perspectives on the specific success factors endemic to the ECHS institution as perceived by graduates of the ECHS. The perceptions revealed that the participants view the success factors as a critical and needed support structure for ECHS students during their transition into the post secondary academic environment. However, the participants perceived certain success factors of the ECHS as more important than others.

The clarification and validation of ECHS success factors will help early college high school administrators put in place the type of programming that supports the ongoing development of these success factors. The findings also have the potential to further reinforce the emerging body of research on successful educational outcomes for ECHS students and to impact the theorectical and practical considerations of the ECHS as an alternative to the traditional high school model. It will also add to the limited body of research that highlights the ECHS student's

point of view concerning college readiness and the ECHS experience. Finally, empirical findings allow for a new analysis of the current literature and research.

This chapter provides a summary analysis of the study's findings, coupled with a discussion of the findings as related and connected to the literature. Insight and clarity is offered about what success factors of the ECHS the graduates viewed as having the most influencial impact and why. Following a discussion of the findings the chapter presents implications for policy, practitioners, and further research.

Findings Vis-à-vis the Literature

Q methodology was the research method used in this study to identify and examine the perceptions of graduates of an early college high school after having completed year one of college in order to examine and compare their responses with the success factors identified by the early college high school model. Chapter 4 provided a discussion of these data and five distinct factor arrays that included: (a) caring and supportive teachers, (b) being a collegiate learner, (c) academic preparation the opportunity to take accelerated classes, (d) high academic expectations and preparedness, and (e) responsibility for your own learning. The researcher's analysis of these five factor arrays suggest that they are connected to three major themes as discussed in the literature review, including: (a) school factors, (b) student factors, and (c) college transition factors. This data analysis generated five distinct viewpoints regarding what the graduates in this study perceived to be the most critical success factors that influenced their college readiness, as well as some shared perspectives among the five factor groups. Table 22 highlights the major themes found in Chapter 2 literature review and the factors in which the themes loaded.

Table 22

Three Major Themes

Major Themes	Factor One	Factor Two	Factor Three	Factor Four	Factor Five
School Factors					
Caring and supportive teachers	X	X			X
Teacher-student relationships		X			X
High academic expectations		X	X	X	X
Self-advocacy	X			X	X
Rigorous and relevant curriculum			X	X	
Student peer relationships	X				
Academic preparedness		X	X	X	
Academic acceleration	X	X	X	X	X
School environment	X	X		X	X
Academic supports		X			X
Smaller school size					
Student Factors					
Student motivation	X			X	X
Self-confidence				X	X
Student persistence	X				X
Self-monitoring	X				X
Self-awareness				X	X
Self-control					X
College Transition Factors					
Course readiness	X		X		
Risks of remediation					
Social and emotional transition		X			X

Connecting the Three MajorThemes in the Literature Reiew to the Factors

After the study participants completed the post-sort interviews, as the researcher, I hypothsized three premises. The first premise related to college readiness was that early college students would note positive perceptions of their college readiness skills as a result of their early college high school experience. While college readiness has traditionally been defined primarily in terms of high school courses taken, grades earned, and scores on national tests, recent research has identified key elements associated with cognitive and metacognitive skills that reflect a better assessment of college readiness (Conely, 2007). Conely (2007) proposed that college readiness is a "multi-faceted concept comprising numerous variables that include factors both internal and external to the school environment" (p. 12). He defined "college readiness" as the "level of preparation a student needs in order to enroll and succeed—without remediation—in a credit-bearing education course at the postsecondary institution that offers a baccalaurette degree or transfer to a baccalaureate program" (Conley, 2007, p. 5). He further explained that to succeed in this context is to ensure that a student completes the entry-level courses with proficiency and understanding necessary to transition to the next course in sequence or the next level of a course in the subject area. These themes are embedded in the literature on college readiness that include Conley's key facets of college readiness: key cognitive skills, knowledge of academic content, academic behaviors, and contextual skills/awareness. Another premise that guided this study was the assumption that early college students would note that participation in the early college program provided information related to access and ease their transition to post secondary institutions. The final premise that guided this study was that early college students would

describe positive perceptions and beliefs of their college readiness skills in the traditional postsecondary environment, referred to henceforth as Student Factors.

Factor One: Caring and Supportive Teachers with High Expectations Matter

The participants in this factor array provided significant evidence of positive caring supportive relationships between students and teachers as noted in the major themes. The students echoed the belief in building positive teacher-student relationships and stressed the value of having teachers who cared. Consistent with the literature, the participants view these relationships as the critical foundation for successful student outcomes. Student-teacher relationships that involve high expectations, respect, responsibility, and personalization contribute most effectively to a college-going culture in high school (AIR/SRI, 2006). Salazar (1997) asserts the benefits that students may reap through meaningful relationships with school personnel may well pay off in the access to information that will contribute to their increased "College Knowledge." Teachers, conselors, administrators, and higher education partners are all considered institutional agents. The participants spoke of teachers seemingly having a greater impact on student success than they realize. Moreover, the presence of at least one supportive adult was a protective factor that enabled students to achieve academically and develop resilience. Allen (2005) argues in her resiliency study of 12 African-American males that their cultural norms must be affirmed in order for a true teacher-student bonding process to occur. Similarly, in a study of 10 high achieving African-American males in science classrooms, Trice (2005) argues that teachers must understand the impact of cultural influence on learning styles and racial identity. Consistent with their voices, in a 2017 study, Hodgkins noted that all students were held to a very high academic standard and that the teachers made efforts to understand their lives outside of class. Participants also noted that teachers fostered discussions that made them want to learn outside of class. The interview data

suggests two things: one, the graduates reported mostly positive teacher-student relationships in the ECHS setting as one of the best features of the ECHS and two, teachers must know their students well to help them achieve academically at the highest level. Helping teachers develop relationships with students requires deliberate approaches. In combination with other aspects of a positive secondary experience such as a structured college experience while in high school, high academic expectations, accelerated classes, self-advocacy, student motivation, persistence, and self- monitoring, having a caring and supportive relationship with teachers is critical in paving the way for success. Student-teacher relationships must be fostered and nurtured while students are in high school if the ECHS is to successfully prepare students for college. The interview data suggest that the participants perceive supportive teacher-student relationships as having a direct impact on the success factors of the early college and as such teacher-student relationships are critical in paving the way for success to occur.

The importance of supportive and caring relationships in schools was pioneered by Comer (1993, 1996). Ancess (1994) found that positive relationships among students and their teachers and among adults create school learning communities that are less bureaucratic and supportive of increased student learning. Furthermore, these intangible aspects of a positive secondary education experience for students in the ECHS manifest in the form of high attendance rates and improved achievement test scores (Evan et al., 2006).

Factor Two: Being a Collegiate Learner Matters

The participants in this factor array provided evidence that suggest that they favor completing the coursework at an accelerated pace, thus granting students the opportunity to take college level classes at no cost. A study conducted in two states provided evidence that dual enrollment can lead to a range of positive outcomes (Kleiner & Lewis, 2005). For example,

Berger et al. (2010) reported that students who had taken college courses in high school were more likely to enroll in college and more likely to enroll in a four-year college, as well as have higher GPAs and earn more credits in their first three years of college than students with no early college experience. In addition, Aldelman's (2006) findings report that students who received college credits while in high school had higher college grade point averages (GPAs) and earned more college credits within three years of high school graduation. Adelman (2006) also suggest that if students can graduate from high school with at least six college classes, it will make college completion more likely. This assertion found three primary benefits for students: the opportunity to earn free college credit, gaining a "taste" of college, and increasing students confidence in their academic abilities (Hughes, Karp, Fermin, & Bailey, 2007). Similarly, Nakkula and Foster (2007) suggest that success in college coursework in the high school setting has resulted in a positive effect on students' views of themselves as learners and as future college students. Based on such findings, these kind of high school initiatives serving as both precursors and concurrently running programs have reinforced the need and promise of the ECHS model. The students placed an emphasis on strong student supports including tutoring, mentoring, and college success seminars to help them be successful in their college-credit courses. As a result of these supports, ECHSs move students through their schooling more quickly. As mirrored in the perceptions articulated by the participants, the structured college experience while in high school has a direct impact on the success factors of the early college and as such earning college credits and a high school diploma simultaneously are crucial in order for success to occur.

Study participants also shared the perspective of fostering supportive relationships, having a structured college experience while in high school, the importance of high academic expectations, academic support, accelerated classes, and the psychological transition from high

school to post-secondary schooling. The graduates in this study believed that building strong relationships among teachers and students, while supporting student efficacy and promoting college readiness must be included as factors in the composition of the 21st century high school model. It creates a sense of community. Several programs emerged from the data supporting teacher-student relationships. The most commonly mentioned programs included activites outside of school, such as clubs, advisory programs, seminar classes, tutoring programs, and student led conferences (Boulson, 2010). All of these programs provided teachers with opportunities to gain insights into the lives, interests, and abilities of their students. Where the programs existed, the evidence suggested that they positively contributed to the development of supportive teacher-student relationships.

Factor Three: Being Prepared to Meet the Academic Expectations of College Matters

This factor array represents the graduates perception that the success factors most influential in preparing students for college is having the opportunity to take accelerated college classes that increased one's ability to read, synthesize, and write at the college level. All study participants provided evidence that suggests that, even though teacher-student relationships were very important for student academic success, they perceived the ability to take accelerated college classes while in high school as most important in preparing students for college. In support of accelerated classes, the highest ranked statements in this factor group speak to the academic preparation to enter college, the academic preparation to meet the expectations of college professors, the high academic expectations for all students, the delivery of a rigorous and relevant curriculum, and the expectation that 100% of graduates attend college. The graduates asserted that the delivery of a rigorous and relevant curriculum coupled with accelerated classes must be cultivated and deliberate while students are in high school if the ECHS is to successfully prepare

students for college. Nodine (2009) argues the early college programs, from the very first interaction with their students, convey high expectations for college and that students are enrolled in college courses on college campuses sometimes as early as 7th grade, thereby providing practical real life experiences of what it means to meet college expectations and to learn college culture. Further, what sets the ECHS apart from other reform efforts is the expectation that most students , not just those considered to be advanced academically, would enroll in some college courses and with the support of the school have successful progression onto college. The perceptions voiced by the participants have a direct impact on the success factors of the early college high school and is crucial to laying the foundation for success to occur.

Factor Four: Having an Academic Mindset Matters

Having an academic mindset accounts for the strong value and importance the Factor Four group placed on high academic expectations for all students. In the graduates' opinion, the factors that were ranked the highest in this group reflect a shared perspective. The success factors of the ECHS that fall into this factor group are mostly school and student factors and are crucially important to academic outcomes. The participants perceived that a structured college experience, study skills, work habits, time management, and academic problem solving skills are the most important factors that enhanced their academic experience and made them feel academically prepared to enter college. The academic behaviors associated with success are found in two overarching themes, self-monitoring and study skills. Conley (2007) asserts that these constructs encompass a range of attributes that exemplify a student's self-awareness, self-monitoring, and self-control as well as their adeptness in preparing for and taking tests, managing their time, taking notes in class, using their advisors, communicating with professors, and effective use of study groups. Self-monitoring represents the crucial ability of a student to negotiate through a

course independently and assess their compentency of the subject matter (Wiley et al., 2010). They must be able to identify where they have gaps in the content knowledge and how to improve in any particular academic task. These developmental requirements require the acquisition of new behavioral, problem-solving, and coping skills that facilitate the transition into the social and academic demands of college (Collier & Morgan, 2008; Roderick et al., 2009).

Factor Five: Assuming Responsibility for Your Own Learning Matters

The Factor Five array represents the voices of the participants that loaded significantly on the factor. Major themes reflected in this factor group include school factors, student factors, and college transition factors. The highest ranked statements regarding the participants' perceptions of college readiness contained language such as the early college had programs, processes, and/or staffing in place to check on the students academic success, the academic expectations were high for all students, students assumed responsibility for their own learning, independence was expressed through self-advocacy, a personal relationship with caring teachers, and students were afforded the opportunity to take accelerated classes..

The Big Common Learnings of the Study

Consensus Statements are those statements that do not distinguish between any pair of factors (Watts & Stenner, 2012). This means that between each of the five factor groups identified in this study, the consensus statements were ranked in a very similar way. Identyfying the consensus statements helped the researcher in determining the graduates shared beliefs about the success factors that indicate college readiness. The five factor solution utilized by the current study generated three consensus statements; two positve and one on the negative side of the continuum. Table 23 highlights the consensus statements that were statiscally significant.

Table 23

Statistically Significant Consensus Statements

Card No.	Statement	Factor One Q-SV Z-SCR	Factor Two Q-SV Z-SCR	Factor Three Q-SV Z-SCR	Factor Four Q-SV Z-SCR	Factor Five Q-SV Z-SCR
6	Provided support in developing independent living and other life skills	-2 -0.49	-2 - 0.59	-2 -0.96	-2 -0.86	-1 -0.20
12	Opportunity to take accelerated classes that increased my ability to read, synthesize, and write college level work	4 1.55	3 1.19	4 1.66	4 1.67	3 1.19
35	Helped me to be more confident in my ability to think critically	2 0.69	1 0.50	1 0.45	1 0.16	1 0.16

As illustrated by Table 23, there were three consensus statements identified by the PQ method program as statistically significant. The three statements include Statement 6: "Provided support in developing independent living and other life skills in order to be prepared to attend college," Statement 12: " Provided the opportunity to take accelerated classes that increased the ability to read, synthesize, and write at the college level," and Statement 35: "Helped me to be more confident in my ability to think crtically." The three statements were found to be consensus statements that ranked similarly for each of the five factors, suggesting that all of the study participants felt equal or approximately the same about them. Statement 6 was placed at the lower end of the grid in the -2 and -1 columns, suggesting that the study participants in all factors rejected or did not agree that this statement was a factor that significantly impacted their college readiness. The student's perspective about this particular statement was also evident in the post sort interviews. Contrarily, the study participants in all factor groups universally valued Statement 12. It was placed at the upper end of the grid in the +4 and +3 columns, indicating that the study participants were in strong agreement about this particular statement and the success factor for college readiness it represented. This factor had been previously identified in the literature review (Zekowski, 2011), so it came as no surprise that the participants placed a high value on this statement. This experience underscores the importance of accelerated classes in the pipeline to college. The student's perspective about this particular statement was also evident in the post sort interviews. Statement 35 was placed in the +2, +1 column, and 0 column. The evidence suggest that the participants were generally in agreement or neutral to this statement and the factor of support it effected or that they were uncertain in what to do with the statement in terms of ranking its overall value as a success factor and impact on college readiness.

Implications

This section first presents how the results of this study influence local, state, and national policy and devotes attention to implications for practitioners in the field and further study. These recommendations are inclusive of practitioners, researchers, and those that make educational policy and funding decisions that impact schools. Based on the findings and information derived from the current study, there are implications for policy, practice, and further research. Implications presented by the findings of this study for ECHS success factors contributing to college readiness generated five unique perspectives involving three major themes (school factors, student facors, and college transition factors). Student responses provided positive evidence of caring and supportive teachers with high academic expectations, a strong rigorous and relevant curriculum, strong, positive relationships among students and faculty, opportunity to take accelerated classes, academic preparedness, a structured college experience while in high school, and responsibility for ones own learning. However, their responses do not provide strong evidence of clear success factors that contribute to the emotional and psychological transition to college.

Implications for Policy

I offer three recommendations for local, state, and national policy. These recommendations are inclusive of those that make educational policy and funding decisions that impact schools. In general, high school reform is of critical concern to educators and policy makers. Most comprehensive high school models require retrofitting for more personalization and a tailored curriculum to enhance the seamless transition of student learning to postsecondary options. The ECHS is only one model, but this study reveals potential that the smaller learning community structure with built-in academic and social support has in generating college readiness in underserved students.

Given the comprehensive nature of the ECHS as a high school reform, in comparison, the present comprehensive high school design model may experience extreme difficulty surving in the 21st century as districts scramble to develop more options for students, including curricula that are relevant, integrated, and aligned to students' individual future career paths (Marx, 2006). Schooling designs that generate supportive and caring learning communities bestow viable solutions (Born, 2006). Time and further study will demonstrate if the ECHS can continue to improve and be sustained. Desimone's (2002) longitudinal school reform studies suggest that educators often appear to improve entire schools but ultimately make only subgroup or structural changes. The research suggests, if student voices are included in future qualitative studies of early college high schools, they will provide unique perspectives relative to the extent that functionalist school thinking, policies, and structures contribute to the problem high dropout rates in both traditional and redesigned high schools.

Furthermore, as many ECHS campuses originate from grants, we must engage the local community in finding ways to prioritize the sustainability of ECHSs. Unfortunately, smaller campus designs are costly (Early College High School Initiative, 2005). Providing students with two years of college credits free of charge is no small feat. However, McDonald (2012) asserts the advantages must be considered in a total cost-benefit analysis. Investment in a smaller design is a monetary commitment to a future that many educational leaders may or may not see or cannot financially warrant to their constituents. The local community has much to gain from providing these learners an academic opportunity. They will bring to the workforce the experience necessary in the 21st century.

Substantial public and private funds have supported the replication of the ECHS model. The dollars do not represent a long-term funding stream. Rigorous evidence of the models

effectiveness will be helpful in efforts to convince district and state officials to allocate future dollars (Miller & Corritore, 2012).

Implications for Practice

Based on the themes revealed by the study participants, I offer four recommendations:

1. Ensure that the learning environment includes caring and supportive teachers with high expectations who are equipped to foster positive teacher-student relationships in and out of the classroom and provide co-curricular experiences.
2. Create and implement supportive structures that provide academic, social, emotional, and psychological experiences that are inclusive and intentional in their approaches and eases the college transition.
3. Foster a culture of collaboration and innovative practices between the high school and university that affords students the opportunity to take more dual enrollment classes.
4. Provide professional development for teachers and counselors that emphasize the key components of care (modeling, practice, dialogue, and confirmation) that attend to the unique needs of teaachers, counselors that foster teacher collaboration and innovative practices.

Administrators must be focused upon creating opportunites for students that offer rigorous and relevant academics, a sense of connection to adults, and a focus on preparing students for a post secondary education.

ECHS participants perceived their teachers cared about them. The smaller school allowed for more personal interactions through a lower student-to-teacher ratio, as well as connections and bonds generated among a diverse cohort of peers through shared schooling experiences. Social support experiences such as caring and trusting relationships removes perceptions of isolation and

provides a sense of security for learners integrating to a collegiate environment (Contreras, 2011; Matthews & Mellom, 2012; Noddings, 2006).

Last, providing voice to Millennial and underserved students regarding their schooling needs and experiences can help educators gain insight to critical issues for increasing the quality and effectiveness of current high school models. Student input on high school design could prove foundational and invaluable to educators and researchers alike.

Implications for Further Study

Based on responses provided by study participants, there are five areas suggested for further study. First, a follow up study with each of the 34 participants in the current study in 12 to 24 months to further gauge their perceptions about ECHS success factors that contributed to college readiness and to determine their progress toward obtaining a bachelors degree. Second, research could be extended through a replication study that involves other early college high school graduates or traditional high schools in other counties and participating school districts using the same methodology in order to broaden our understanding of student perceptions of college readiness. Furture studies should also explore the impact of social, emotional, and psychological factors influence college transitions.

Third, an extended longitudinal study where students are tracked at key points throughout their college matriculation to measure changes in perception and academic outcomes. This longitudinal data could affirm, refute, or enhance the success factors identified in the study, thereby enriching and providing more depth to understanding changes in participants' perceptions regarding academic preparedness. Fourth, research studies are warranted relative to how funding for these schools will be sustained when early college implementation grants from the Gates Foundation expire. States are responsible for the overwhelming majority of spending, not the

federal government (Brown & Hammer, 2006). One can only wonder if equity can become a dominant focus over excellence and standards in these redesigned schools.

The final recommendation for further study is the extent to which early college high schools not only increase high school graduation rates, but also college graduation rates and subsequent earning power after they graduate from high school. When the Learn & Earn early college inititative was created by Governor Mike Easley in 2004, he predicted that ninth grade students who enroll in an early college high school would graduate with more economic opportunities. ECHS participants' degree completion rates and reports of postdegree transition into the workforce would significantly add to substantiated findings in this study and the broader research literature base.

Conclusion

This study examined the perceptions of 34 graduates of an ECHS seeking to answer three questions, the first being "What are the success factors of the early college high school that indicate student readiness for college?" To answer this question an extensive literature review was conducted that captured the best thinking to date as related to the success factors of an early college high school. The literature pointed to the importance and value of these success factors as students transitioned to college, especially given the challenges and complexities facing high school graduates today.

The second research question asked was "What are former ECHS students' perceptions of success factors necessary for college readiness?" To answer this query, the current study sought to gain insight and a better understanding of the early college success factors that former ECHS students perceive to have had the most impact on their levels of college readiness. The mixed-method research design was used to answer the questions by scientifically examining and

quantifying human subjectivity (Militello & Benham, 2010). As such it was an appropriate research method for the current study. A set of 42 statements representing ECHS success factors were culled from the literature review, students, and practitioners' input. Participants were asked to sort the staements based upon their views and perceptions of college readiness. The sorts were factor analyzed and the findings revealed five interesting and distinctive viewpoints. These five perspectives offered insight into how valuable and critical the students considered teacher-student relationships, having a structured college experience, accelerated classes, high academic expectations, and being prepared for college were for college readiness.

The third research question focused on insights as to what led these ECHS graduates/study participants to identify specific success factors as effective to their first year in college. The research question was answered by facilitating in-delph qualitative work with the participants who loaded significantly on each of the five factors. Through a Q sort and post sort interviews and an examination of post sort questions, a thorough and concrete understanding of the success factors was obtained. Additionally, through focus group interviews, the study utilized student voices to capture perceptions of three most important ECHS success factors needed to prepare students for post secondary schooling.

In today's society, a high school diploma is the gateway to college post-secondary education. According to recent calculations, the net value of a college degree is more than $800,000 above a high school diploma, as measured by the increased lifetime earnings of a graduate less the cost of attending college (Daly & Bengali, 2014). Graduating from college to unlock higher earning potential is a longitudinal process that requires several distinct steps including having college aspirations, being a college- ready high school graduate, applying and gaining access to college, and persisting in college through graduation (Cabera & LaNasa, 2001;

Perna & Thomas, 2006).Therefore, high school graduation is an important component in the college degree pipeline.

During the guided interview, students were asked to share their perspectives on the following questions:

1. What was the main reason you chose to attend the Early College High School?
2. What they believed to be the most valuable component or pre-college experience gained for the ECHS experience;
3. What statement best represents your shared perspective?
4. What has had the greatest impact on how you sorted your cards the way you did?
5. How do you feel the ECHS has prepared you for the social and emotional experiences or pressures of college?
6. What academic skills do you believe you have learned at the ECHS that have prepared you for college?

One student's personal journey particularly offered powerful and profound insights as she described her experience at the ECHS. Particpant 18-001 shared the following perspective:

> "Academically and socially I was definitely prepared for college. When I made the transition to North Carolina Central University on a full scholarship, I was ready to "soar like and eagle" both academically and socially. I received lots of accolades from my professors for being smart, organized, studious, and responsible. I was tutoring other college students. As far as being in a collegiate space, we knew how to express ourselves and deal with professors on a professional level. I mean we had been practicing for four years. We knew how to study and how to make the grade. However, being prepared emotionally to make the transition is where the early college falls by the wayside. The

rigor is there, but we are not coached enough and guided on the new distractions of things to come such as how to keep from losing your scholarship or the difference between high school athletic practices verses college practices. It is a very different world. No one coached me on what to do when I get tired and have to push forward; how do I plan and properly use my flex points in conjunction with my meal plan; how do I set my meal plan up at the beginning of the semester to ensure that I am going to have three meals per day; how do I balance my job with my college work; or how do I bounce back from my boyfriend breaking up with me and I am sad, but I still have to go to class and prepare for a test. . . . academically and socially we get it done, but when it comes to this extra emotional stuff on my own, I did not fare so well. Everything is not academic when transitioning to college. Because of my lack of preparation emotionally, I lost my scholarship and almost lost my mind. I did not know how to share this experience with my parents. I literally was in a funk for three semesters. Students should be coached on how to make use of the college counseling center and othe resources available. I found that theraphy is the greatest gift to anyone—it is the most beautiful thing we can do for ourselves. It lifts the weight off your shoulders and allows you to find your footing again and get back on track. If I had utilized the resources earlier, I would not have waisted so much time and money. We need to learn how to access and utilize those type of services earlier so we don't lose a lot of time and money in the end. The psychological transition was not easy for me. I have learned that sometimes you have to backtrack to move forward. We neglected those little gold nuggets such as the heart and other life coping skills. The ECHS gets ample accolades for academic and social preparation, but improvement is needed in the area of the the psychological and emotional transitioning."

Other students that shared multiple pespectives regarding their academic readiness were also interviewed. Overall, participants shared how the ECHS experience supported acclimation to collegiate coursework and positively affected their scholarly development and identity. The evidence suggests that the ECHS program met their needs by providing academic and social support within the tailored curriculum and cohesively constructed learning environment. Josehine Dobbs Clement Early College High School has served since 2004 as a leader in reducing dropout rates and increasing graduation rates, and graduating students prepared to enter post secondary schools. As an administrator of an ECHS, I am responsible for ensuring that our students are proficient on curriculum content standards and ready for college and careers. Consequently, the responsibility of grades 9-12 public educators does not cease at the high school graduation. As an ECHS, we take special interest in the post-secondary success of our students. Our mission is to ensure that every student graduates in four years with up to two years of college credit prepared to enter college or the work force. I have the opportunity to witness first hand the many challenges students face as they transition from the middle school to a collegiate mindset and, as such, the many supports needed to make the transition seamless. It is for this reason that I am so passionate about the types of programming that are necessary to ensure the success of each and everyone of our students. This experience has afforded me the opportunity to understand at a deeper level the success factors of the early college that students feel are endemic to their college readiness, therefore having the most impact on academic preparedness for college. This notion is significant when one considers that over the schools' 13-year history and during my tenure as principal over the last five years we have experienced a 100% graduation rate consistently for the last five years, earned a high school performance grade of A/A+ for four years, the grade level proficiency for

end of grade course standardized tests in English, Math, and Biology is 90% and higher, the drop out rate is 0, and the retention and suspension rate is very low to 0.

This study has the potential to transform my work in many major ways. Based upon the perceptions of the participants, there is a need for the implementation and execution of programming to address the emotional and psychological factors attributed to college readiness as articulated by the study participants. Some are automatically provided within the K12 setting but must be sought out by the student during and after the transition. The good news is, we want to improve. In closing, this study and its findings support the success factors of the ECHS that are endemic to college readiness. It can transform not only my work but the work of other ECHS leaders and teachers and ultimately have a deep impact on students.

REFERENCES

Adelman, C. (2007). Do we really have a college access problem? *Change*, *39*(4), 48-51.

Adelman, C. (2006). The toolbox revisited: Paths to degree completion from high school through college. Washington, DC: U.S. Department of Education.

Alleman, N. F., & Holly, L. N. (2014). The role of rural communities in the postsecondary preparation of low-income students. *Journal of Education for Students Placed At Risk*, *19*(3/4), 148-168. doi:10.1080/10824669.2014.970638

American Institutes for Research & SRI International. (2006). *The early college high school initiative 2003-2005 evaluation report*. Washington, DC: American Institutes for Research.

American Institutes of Research & Stanford Research Institute International. (2005). *Rigor relevance and results: The quality of teacher assignments and student work in new and conventional high schools*. An evaluation of the Bill & Melinda Gates Foundation's High School Grants. Washington, DC: Author

Bailey, M., & Dynarski, S. (2011). Inequality in postsecondary attainment. In G. Duncan and R. Murnane (eds.), *Whither opportunity: Rising inequality, schools, and children's life chances*, pp. 117-132. New York: Russell Sage Foundation.

Berger, A., Adelman, N., & Cole, S. (2010). The early college high school initiative: An overview of five evaluation years. *Peabody Journal of Education*, *85*(3), 333-347.

Berger, A. R., Cole, S., Duffy, H., Edwards, S., Knudson, J., Kurki, A., & Shkolnik, J. (2009). Fifth Annual Early College High School Initiative Evaluation Synthesis Report. Six years and counting: The ECHSI Matures. *American Institutes for Research*.

Berger, A., Turk-Bicakci, L., Garet, M., Knudson, J., & Hoshen, G. (2014). *Early college, continued success: Early college high school initiative impact study*. Washington, DC: American Institutes for Research.

Berger, A., Turk-Bicakci, L., Garet, M., Song, M., Knudson, J., Haxton, C., et al., & Cassidy, L. (2013). *Early college, early success: Early college high school initiative impact study*. Washington, DC: American Institute for Research.

Bernstein, L., Edmunds, J., & Fesler, L. (2014). *Closing the performance gap: The impact of the early college high school model on underprepared students*. Society for Research on Educational Effectiveness.

Bidwell, A. (2013, July 8). Report: Economy will face shortage of 5 million workers in 2020. *U.S. News and World Report*. Retrieved from http://www.usnews.com/news/articles/2013/07/08/report-economy-will-face-shortage-of-5-million-workers-in-2020

Bill & Melinda Gates Foundation. (2009). *College ready*. Retrieved from http://www.gatesfoundation.org

Blackwell, E., & Pinder, P. (2014). What are the motivational factors of first-generation minority college students who overcame their family histories to pursue higher education?. *College Student Journal*, *48*(1), 45-56.

Born, T. (2006). Middle and early college high schools: Providing multilevel support and accelerated learning. *New Directions for Community Colleges, 135*, 49-58.

Brohpy, J. (2005). Goal theorists should move on from performance goals. *Educational Psychologist, 40*(3), 167-176.

Bruce, L. (2007). Perceptions, motivations, and achievement of African-American students enrolled in a middle college high school. (Published doctoral dissertation, Chapel Hill: The University of North Carolina).

Burke, M. A., & Sass, T. R. (2013). Classroom peer effects and student achievement. *Journal of Labor Economics, 31*(1), 51-82.

Cabrera, A., & LaNasa, S. (2001) On the path to college: Three critical tasks facing America's disadvantaged. *Research in Higher Education, 42*(2), 119-149.

Cates, J. T., & Schaefle, S. E. (2011). The relationship between a college preparation program and at-risk students' college readiness. *Journal Of Latinos & Education, 10*(4), 320-334. doi:10.1080/15348431.2011.605683

Cerrone, K., Nicholas, J. B., & Ramlo, S. (2013). Perspectives contributing to early college high school students' persistence. *Operant Subjectivity: The International Journal of Q Methodology, 36*(4), 342-352.

Chisley, B. (2008). Minority college students' perceptions of college preparation experiences and their high school counselors: One year later – A revised perspective. Counseling and Personnel Services University of Maryland, College Park, 91-103.

Conley, D. T. (2008). Rethinking college readiness. *New England Journal of Higher Education, 22*(5), 24-26.

Conley, D. T., & French, E. M. (2014). Student ownership of learning as a key component of college readiness. *American Behavioral Scientist, 58*(8), 1018-1034.

Cothran, D. J., & Ennis, C. D. (2000). Building bridges to engagement: Communicating respect and care for students in urban high schools. *Journal of Research and Development in Education, 33*(2), 106-117.

Daly, M. C., & Bengali, L. (2014). Is it still worth going to college? *Federal Reserve Bank of San Francisco Economic Letter.* Retrieved from Federal Reserve Bank of San Francisco website: http://www.frbsf.org/economic-research/publications/economic-letter/2014/may/is-college-worth-it-education-tuition-wages/

DiMaria, F. (2014). Rethinking the admission process. *Education Digest, 80*(4), 55.

DiMaria, F. (2006). Keeping our engaged, at-risk kids in college. *Education Digest, 72*(2), 52-57.

Drew, S. (2001). Perceptions of what helps learn and develop in education. *Teaching in Higher Education, 6*(3), 309-331.

Eccles, J. S., Vida, M. N., & Barber, B. (2004). The relation of early adolescents' college plans and both academic ability and task-value beliefs to subsequent college enrollment. *Journal of Early Adolescence, 24,* 63-77.

Edmunds, J. A., Bernstein, L., Glennie, E., Willse, J., Arshavsky, N., Unlu, F., et al., & Dallas, A. (2010). Preparing students for college: The implementation and impact of the early college high school model. *Peabody Journal of Education, 85*(3), 348-364.

Engle, J., & Tinto, V. (2008). Moving beyond access: College success for low-income, first-generation students. Retrieved from Pell Institute for the Study of Opportunity in Higher Education website: http://www.pellinstitute.org/publications-Moving_Beyond_Access_2008.shtml

Goodman, J., Hurwitz, M., Smith, J., & Fox, J. (2015). The relationship between siblings' college choices: Evidence from one million SAT-taking families. *Economics of Education Review, 48,* 75-85. doi:10.1016/j.econedurev.2015.05.006

Heath, B., & Lewis, B. (2000). Dual-enrolled students' perceptions of the effect of classroom environment on educational experience. *The Qualitative Report, 4*(1, 2).

Henderson, A., & Berla, N. (1994). *A new generation of evidence: The family is critical on student achievement*. Washington, DC: National Committee for Citizens in Education.

Hicks, T. (2003). First generation and non-first generation pre-college students' expectations and perceptions about attending college. *Journal of College Orientation and Transition, 11*(1), 5-17.

Hicks, T. (2008). High school to college transition: A profile of the stressors, physical and psychological health issues that affect the first-year on-campus college student. *Journal of Cultural Diversity, 15*(3), 143-147.

Hossler, D., Schmit, J., & Vesper, N. (1999) *Going to college: How social, economic, and educational factors influence the decisions students make*. Baltimore: Johns Hopkins University Press.

Hoxby, C., & Turner, S. (2013). Expanding college opportunities. *Education Next, 13*(4), 66-73.

Jack, A. (2015, September 12). What the privileged poor can teach us. *New York Times*.

Jones, S. (2015). The game changers: Strategies to boost college completion and close attainment gaps. *Change, 47*(2), 24-29. doi:10.1080/00091383.2015.1018085

Julie A., Edmunds, J. A., Willse, J., Arshavsky, N., & Dallas, A. (2013). Mandated engagement: The impact of early college high schools. *Teachers College Record, 115*(7).

Karnick, K. (2013). Middle school student factors as predictors of college readiness. Available from Pro Quest Dissertations & Theses Global (1505362785).

Labaree, D. (1997). Are students “consumers”?. *Education week, 17*(3), 48.

Layton, L. (2014, April 28). National graduation rates at historic high, but disparities still exist. Retrieved from https://www.washingtonpost.com/local/education/high-school- graduation-rates-at-historic-high/2014/04/28/84eb0122-cee0-11e3-937f-d3026234b51c_story.html

Leonhardt, D. (2015, April 24). College for the masses. *New York Times*.

Martinez, I., & Turner, S. (2015). The productivity of pell grant spending: Enrollment versus attainment. *Change, 47*(5), 55-62. doi:10.1080/00091383.2015.1077678

McDonald, D., & Farrell, T. (2012). Out of the mouths of babes: Early college high school students' transformational learning experiences. *Journal of Advanced Academics, 23*(3), 217-248.

Militello, M., Janson, C., & Tonissen, D. (2016). InQuiry: A participatory approach for understanding stakeholder perceptions. *Foundation Review, 8*(1), 88-107.

Militello, M., Schweid, J., & Carey, J. (2011). ¡Sí se puede en colaboración! Increasing college placement rates of low-income students. *Teachers College Record, 113*(7), 1435-1476.

Miller, L., & Corritore, M. (2013). *Working paper: Assessing the impact of North Carolina's early college high schools on college preparedness*. Charlottesville, VA: Center on Education Policy and Workforce Competitiveness.

Mortenson, T. (2010). Family income and educational attainment 1970 to 2009. *Post Secondary Education Opportunity, 19*(11).

Muratori, M., Colangelo, N., & Assouline, S. (2003). Early-entrance students: Impressions of their first semester of college. *Gifted Child Quarterly, 47*(3), 219-238.

National Association for College Admission Counseling. (2009). Research to Practice Brief. Adolescent development and the transition to college: Psychological and social considerations, 5.

Newton, A. (2008). *Empowering students: How Georgia College Early College changes student aspirations.* Boston, MA: Jobs for the Future.

Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, *70*(3), 323-367.

Ou, S., & Reynolds, A. J. (2014). Early eeterminants of postsecondary education participation and degree attainment: Findings from an inner-city minority cohort. *Education & Urban Society*, *46*(4), 474-504. doi:10.1177/0013124512447810

Perna, L. W. (2015, April 30). Improving college access and completion for low-income and first-generation students: the role of college access and success programs. Testimony to subcommittee on higher education and workforce training committee on education and the workforce, U.S. House of Representatives.

Perna, L. W. (2002). Precollege outreach programs: Characteristics of programs serving historically underrepresented groups of students. *Journal of College Student Development*, *43*(1), 64. Retrieved from http://search.proquest.com.jproxy.lib.ecu.edu/docview/195176874?accountid=10639

Perna, L., & Swail, W. (2002). Pre-college outreach and early intervention. *Thought and Action*, *27*, 99-110.

Perna, L., & Thomas, S. (2006) A framework for reducing the college success gap and promoting success for all. *National postsecondary education cooperative*.

Perna, L., & Titus, M. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *Journal of Higher Education*, *76*(5), 485-518.

Petty, T. (2014). Motivating first-generation students to academic success and college completion. *College Student Journal*, *48*(2), 257-264

Ramsey-White, K. R. (2012). *Exploring college readiness: Self-perceptions of early college students*. Georgia State University.

Reddick, R. J., Welton, A. D., Alsandor, D. J., Denyszyn, J. L., & Platt, C. S. (2011). Stories of success: High minority, high poverty public school graduate narratives on accessing higher education. *Journal of Advanced Academics, 22*(4), 594-618. doi:10.1177/1932202X11414133

Robbins, S. B., Lauver, K., Le, H., Davis, D., Langley, R., & Carlstorm, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis. *Psychological Bulleting, 130,* 261-288.

Rowan-Kenyon, H., Bell, A., & Perna, L. (2008). Contextual influences on parental involvement in college going: Variations by socioeconomic class. *Journal of Higher Education, 79*(5), 564-586.

Sáenz, K. P.. & Combs, J. P. (2015). Experiences, perceived challenges, and support systems of early college high school students. *Administrative Issues Journal: Education, Practice, and Research, 5*(1), 105-117.

Schneider, B. (2007). Forming a college-going community in U.S. public high schools. Bill & Melinda Gates Foundation.

Schweinle, A., & Helming, L. (2011). Success and motivation among college students. *Social Psychology of Education, 14*(4), 529-546. doi:10.1007/s11218-011-9157-z

Strayhorn, T. L. (2014). Modeling the determinants of college readiness for historically underrepresented students at 4-year colleges and universities: A national investigation. *American Behavioral Scientist, 58*(8), 972-993.

The Foundation for Student Success: Student Background Characteristics, Precollege Experiences, and Enrollment Patterns. (2007). *ASHE Higher Education Report*, *32*(5), 21-42.

Thomas, D. (2014). Factors that influence college completion intention of undergraduate students. *Asia-Pacific Education Researcher (Springer Science & Business Media B.V.)*, *23*(2), 225-235. doi:10.1007/s40299-013-0099-4

Valdez, S., & Marshall, D. (2013). Working across the segments: high schools and the college completion agenda. *New Directions For Community Colleges*, *2013*(164), 47-55. doi:10.1002/cc.20080

Venezia, A., & Jaeger, L. (2013). Transitions from high school to college. *The Future of Children*, *23*(1), 117-136.

Wasley, P. A., Fine, M., Gladden, M., Holland, N. E., King, S. P., Mosak, E., & Powell, L. C. (2000). *Small schools: Great strides. A study of new small schools in Chicago*.

Welton, A., & Williams, M. (2015). Accountability strain, college readiness drain: sociopolitical tensions involved in maintaining a college-going culture in a high "minority", high poverty, texas high school. *High School Journal*, *98*(2), 181-204.

Woodcock, J., & Beal, H. (2013). Voices of early college high school graduates in Texas: A narrative study. *High School Journal*, *97*(1), 56-76.

Yu, H. (2014). At issue: The relationship between student loans and low-income students' baccalaureate attainment: A literature review. *Community College Enterprise*, *20*(1), 50-59.

Zelkowski, J. (2010). Secondary mathematics: Four credits, block schedules, continuous enrollment? What maximizes college readiness?. *Mathematics Educator*, *20*(1), 8-21.

Zelkowski, J. (2011). Defining the intensity of high school mathematics: Distinguishing the difference between college-ready and college-eligible students. *American Secondary Education*, *39*(2), 27-54.

APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL

EAST CAROLINA UNIVERSITY
University and Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · **www.ecu.edu/irb**

Notification of Exempt Certification

From:	Social/Behavioral IRB
To:	Gloria Woods-Weeks
CC:	Matthew Militello
Date:	1/20/2017
Re:	UMCIRB 17-000052 Graduates of an Early College High School: Perceptions of College Readiness

I am pleased to inform you that your research submission has been certified as exempt on . This study is eligible for Exempt Certification under category #2.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.
This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.
The UMCIRB office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification request at least 30 days before the end of the five year period.
The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX B: Q SORT PROTOCOL

East Carolina University

Title of Research Study: Graduates of an Early College High School: Perceptions of College Readiness

Principal Investigator: Gloria Woods-Weeks, under the guidance of Dr. Matthew Militello

Please provide a unique identifier that you will remember:_____

Conditions for Sorting the Statements—keep this statement in mind as you sort the statements: What are the success factors of the early college high school that indicate student readiness for college?

Q Sort Instructions:

1. Lay out the number cards from left to right with the negative (-) numbers on your left (see picture below):

2. Read through all **42** cards to become familiar with the statements.

3. As you read through the statements for a second time, organize them into three piles:
   - On the right, place the cards that you feel are most representative of what you believe are the success features of the early college high school that indicate student readiness for college.
   - On the left, place the cards that are least representative.
   - In the middle, place the cards that you feel less certain about.

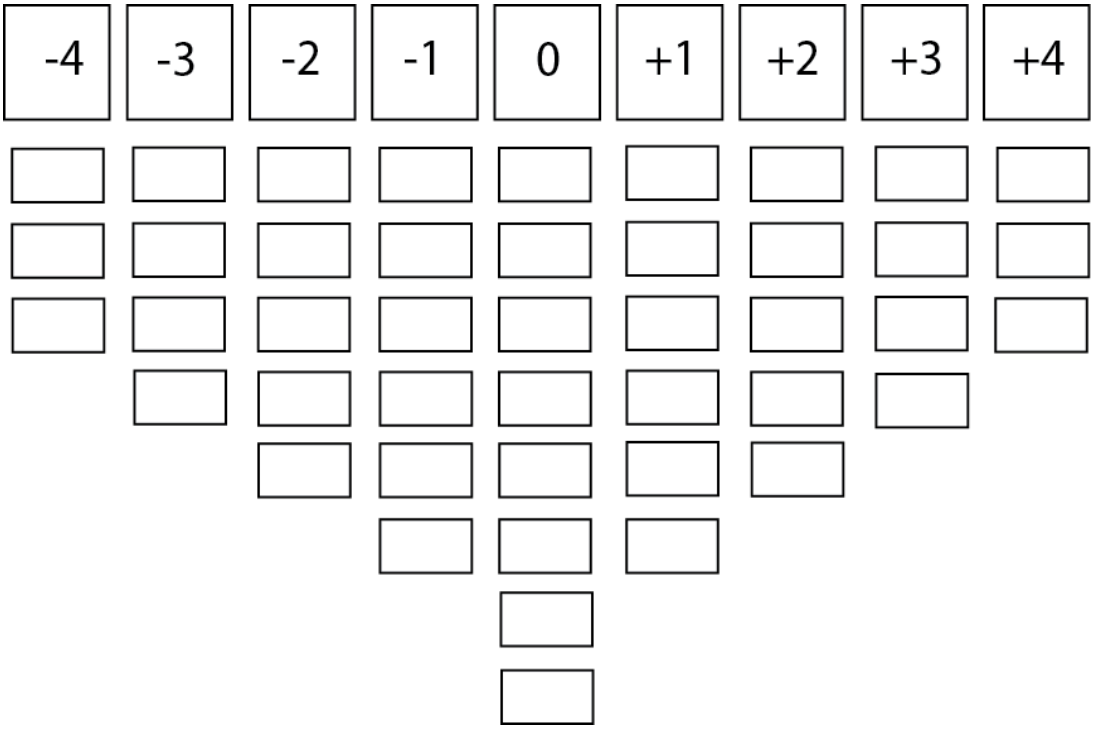
4. Beginning with the pile on the right, place the **three** cards that you **agree** with the most under the **+4** marker.

5. Now, turning to your left side, place the **three** cards that you **disagree** with the most under the **-4** marker.

6. Continue this process until all the cards are placed. You are free to change your mind during the sorting process and switch items around.

7. When completed, you should have the following number of cards under each row:
   - You should have **3** cards under markers **+4** (most **agree**) and -4 (least **agree**).
   - You should have **4** cards under markers **+3** (**agree**) and -3 (**disagree**).
   - You should have **5** cards under markers **+2** (slightly **agree**) and -2 (slightly **disagree**).
   - You should have **6** cards under markers **+1** (slightly **agree**) and -1 (slightly **disagree**).
   - You should have **8** cards under marker **0** (**neutral**).

8. Your sorted cards should match the diagram below. After sorting the cards, please record the number on the cards onto the diagram below in the order in which you placed them. KEEP YOUR CARDS OUT—you will need them to answer the follow-up questions.



Post Q Sort Interview Questions:

1) Please list a few of the cards in the +4 column and your reasons for placing it there.

Card #:_____

Card #:_____

2) Please list a few of the cards in the -4 column and your reasons for placing it there.

Card #:_____

Card #:_____

3) Were there specific statements that you had difficulty placing? Choose one and please list the number of the statement and describe your dilemma.

Card #:_____

5) Is there a statement that you would have like to see in the sort? If so, what would the card have said and where would you have placed it?

6) In order, what are the three most important features of the early college high school that school and district administrators could provide to increase your college readiness? Why are they important, and how could school and district administrators ensure these elements are in place?

7) Would you be willing to participate in a post-sort focus group interview?

8) How many years have you been in college?

APPENDIX C: POST-SORT FOCUS GROUP PROTOCOL

East Carolina University

Title of Research Study: Graduates of an Early College High School: Perceptions of College Readiness

Principal Investigator: Gloria Woods-Weeks, under the guidance of Dr. Matthew Militello

Please provide a unique identifier that you will remember:_____

Participants with significant loading on a particular factor will sit with other participants who loaded on the same factor. Loading on a common factor represents a statistically significant shared perspective. The purpose of this focus group interview is to gain additional insights about why participants have their perspectives.

After performing factor analysis on all of the responses, your responses are statistically similar to those shown in the model sort.

Condition for Sorting the Statements—as a reminder, keep this statement in mind as you participate in the focus group interview process: *What are the success factors of the early college high school that indicate student readiness for college*

1) Who is in your group? Describe any similarities and/or differences (e.g., demographics, job, etc.).

2) Which statements best represent your shared perspective?

3) What has had the greatest impact on how you sorted your cards the way you did? (Examples- past experience, courses, current knowledge, etc.). Please explain your answers.

4) What name would you assign that represents the perspective illustrated by this model sort? Explain why and the meaning associated with that name—use card statements to provide justification for your name.

APPENDIX D: CARD SORT CONSENT FORM FOR PARTICIPANTS

Title of Research Study: Graduates of an Early College High School: Perceptions of College Readiness.

Principal Investigator: Gloria Woods-Weeks, under the guidance of Dr. Matthew Militello

Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems, and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

Why am I being invited to take part in this research?

The purpose of this study is to seek to understand perceptions of graduates of an early college high school who completed year one of college in order to examine the success factors identified by the early college high school model. In addition, student data on academic readiness and their perceptions of academic readiness will be collected and analyzed in order to determine the strength of the relationship of these two variables and to provide a more comprehensive examination of the readiness construct. As a graduate of an ECHS who has completed one year of college, you are being invited to take part in this research to seek your perceptions, viewpoints, and insights about success factors and features of an ECHS model. You are being asked to take part in the study by participating in a Card Sort Exercise. Your participation in this study is voluntary. The decision to take part in the research is yours to make. You have the right to participate, to choose not to participate, or to stop participating at any time without penalty.

By conducting this research, I hope to obtain findings to the following research questions:

1. What are the success factors of early college high school college readiness?
2. What are the graduates of early college high school students' perceptions of success factors necessary for college readiness?
3. What has led these students to identify these success factors as effective to their first year in college?

If you volunteer to participate in this research, you will be one of about 30 people to do so.

Are there reasons I should not take part in this research?

There are no known reasons for why you should not participate in this research study. In addition, there are no known risks to participating in the card sorting exercise.

What other choices do I have if I do not take part in this research?
You can choose not to participate.

Where is the research going to take place and how long will it last?
The research will be conducted at the James E. Shepard Library on the campus of North Carolina Central University. The total amount of time you will be asked to volunteer for this study is approximately one hour.

What will I be asked to do?
You will be asked to sort 42 cards. These cards have statements about ECHS success factors that contribute to college readiness printed on them, and your task will be to sort them according to your own beliefs and viewpoints. This process should take approximately one hour. After sorting the cards, you will be asked to complete a brief questionnaire about the statements and why you placed specific statements in certain areas on the distribution grid. In addition, you will be asked some general demographic data. Your card sort and your responses to the questionnaire will remain confidential.

What might I experience if I take part in the research?
We do not know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. We do not know if you will benefit from taking part in this study. There may not be any personal benefit to you, but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?
We will not be able to pay you for the time you volunteer while participating in this study.

Will it cost me to take part in this research?
It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?
ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:
x Any agency of the federal, state, or local government that regulates human research. This includes the Department of Health and Human Services (DHHS), the North Carolina Department of Health, and the Office for Human Research Protections.
x The University & Medical Center Institutional Review Board (UNCIRB) and its staff have responsibility for overseeing your welfare during this research and may need to see research records that identify you.

How will you keep the information you collect about me secure? How long will you keep it?
The information in the study will be kept confidential to the full extent allowed by law. Data will be stored securely on a computer and in a location to which only the researcher has access. No reference will be made in oral or written reports that could link you to the study.

What if I decide I do not want to continue in this research?
You can stop at any time after it has already started. There will be no consequences if you stop, and you will not be criticized. You will not lose any benefits that you normally receive.

Who should I contact if I have questions?
The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at phone number 919-907-8965 (days, 8:00 am – 4:00 pm) or via email: gloria.woods-weeks@dpsnc.net.

If you have questions about your rights as someone taking part in research, you may call the Office of Research Integrity & Compliance (ORIC) at phone number 252-744-2941 (days, 8:00 am – 5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director of the ORIC at 252-744-1971.

I have decided I want to take part in this research. What should I do now?
The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

x I have read (or had read to me) all of the above information.
x I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
x I know that I can stop taking part in this study at any time.
x By signing this informed consent form, I am not giving up any of my rights.
x I have been given a copy of this consent document, and it is mine to keep.

_____
Participant's Name (PRINT) Signature Date

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above and answered all of the person's questions about the research.

_____
Person Obtaining Consent (PRINT) Signature Date

APPENDIX E: POST-SORT INTERVIEW CONSENT FORM FOR PARTICIPANTS

East Carolina University

Informed Consent to Participate in Research Information to Consider Before Taking Part in Research That Has No More Than Minimal Risk

Title of Research Study: Graduates of an Early College High School: Perceptions of College Readiness

Principal Investigator: Gloria Woods-Weeks, under the guidance of Dr. Matthew Militello

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Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems, and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

Why am I being invited to take part in this research?
The purpose of this study is to seek to understand perceptions of graduates of an early college high school who completed year one of college in order to examine the success factors identified by the early college high school model. In addition, student data on academic readiness and their perceptions of academic readiness will be collected and analyzed in order to determine the strength of the relationship of these two variables and to provide a more comprehensive examination of the readiness construct. As a graduate of an ECHS who has completed one year of college, you are being invited to take part in this research to seek your perceptions, viewpoints, and insights about success factors and features of an ECHS model. You are being asked to take part in the study by participating in a Card Sort Exercise. Your participation in this study is voluntary. The decision to take part in the research is yours to make. You have the right to participate, to choose not to participate, or to stop participating at any time without penalty. By conducting this research, I hope to obtain findings to the following research questions:

1. What are the success factors of early college high school college readiness?
2. What are the graduates of early college high school students' perceptions of success factors necessary for college readiness?
3. What has led these students to identify these success factors as effective to their first year in college?

If you volunteer to participate in this research, you will be one of about 30 people to do so.

Are there reasons I should not take part in this research?
There are no known reasons for why you should not participate in this research study. In addition, there are no known risks to participating in the post-sort interview.

What other choices do I have if I do not take part in this research?

You can choose not to participate.

Where is the research going to take place and how long will it last?
The research will be conducted at the James E. Shepard Library on the campus of North Carolina Central University. The total amount of time you will be asked to volunteer for this study is approximately one hour.

What will I be asked to do?
If you agree to participate in this stage of the study, you will be asked to participate in an interview as a follow-up activity to the previous card sorting exercise. Interview questions will focus on the findings of the Q sort and will be used to seek a deeper understanding of your viewpoints and perceptions about the factors that emerged during the sort and its analysis. Reflection questions will be asked to gain understanding of the rank value you assigned certain factors in the rank order. The interview will be recorded, and the recording will be transcribed as part of the data analysis component of the study.

What might I experience if I take part in the research?
We do not know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. We do not know if you will benefit from taking part in this study. There may not be any personal benefit to you, but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?
We will not be able to pay you for the time you volunteer while participating in this study.

Will it cost me to take part in this research?
It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?
ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:
x Any agency of the federal, state, or local government that regulates human research. This includes the Department of Health and Human Services (DHHS), the North Carolina Department of Health, and the Office for Human Research Protections.
x The University & Medical Center Institutional Review Board (UNCIRB) and its staff have responsibility for overseeing your welfare during this research and may need to see research records that identify you.

How will you keep the information you collect about me secure? How long will you keep it?
The information in the study will be kept confidential to the full extent allowed by law. Confidentiality will be maintained throughout the data collection and data analysis processes. Information gathered from the interview will be maintained in a secure, locked location and will

be destroyed upon successful completion of the study. No reference will be made in oral or written reports that could link you to the study.

What if I decide I do not want to continue in this research?
You can stop at any time after it has already started. There will be no consequences if you stop, and you will not be criticized. You will not lose any benefits that you normally receive.

Who should I contact if I have questions?
The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at phone number 919-907-8965 (days, 8:00 am – 4:00 pm) or via email: gloria.woods-weeks@dpsnc.net.

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I have decided I want to take part in this research. What should I do now?
The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

x I have read (or had read to me) all of the above information.
x I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
x I know that I can stop taking part in this study at any time.
x By signing this informed consent form, I am not giving up any of my rights.
x I have been given a copy of this consent document, and it is mine to keep.

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Participant's Name (PRINT) Signature Date

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above and answered all of the person's questions about the research.

_____
Person Obtaining Consent (PRINT) Signature Date