The Influence of Noncognitive Skills on High Socioeconomic High School Students’ Learning and College Readiness

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education in Educational Leadership

By

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August, 2015
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I would like to extend my deepest gratitude to the professors, administrators, and staff of California State University Northridge, for their professional guidance and support. I want to thank my cohort colleagues for their moral support and help during critical times. Together we mastered all the noncognitive skills (resilience in particular) by having a positive attitude and disposition, embracing any difficult task as a challenge to persevere and triumph over.

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Dedication

The effort placed into this study comes from my childhood memories of my beloved parents’ lack of educational opportunities. In spite of this, they were determined to provide a better education to their six children, however possible. The journey would not have been possible without their selfless giving of unconditional love, moral support, a powerful work ethic, and their emphasis on family values.

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Abstract

The Influence of Noncognitive Skills on High Socioeconomic High School Students’ Learning and College Readiness

By

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Doctor of Education in Educational Leadership

The purpose of this study was to explore the perceptions of high school students and educators concerning the significance and influence of noncognitive skills on students’ learning while shaping their readiness to successfully transition to a post-secondary education, fulfill, and sustain new academic expectations. Study results provided empirical data regarding the impact that the explicit development of student noncognitive skills might have when combined with current practices merely focusing on cognitive skills that measure students’ outcomes. This qualitative study, using a grounded theory tradition, aimed to shed light on educators and administrators to inform, modify, and improve college readiness methods and supports, thereby better serving the students’ needs and college aspirations as they prepare for their college transition.

Keywords: Noncognitive Skills, Soft Skills, Habits of Mind, Affective Factors, Self-regulation, Self-efficacy, Self-monitoring, Interpersonal Skills, Academic Behaviors, College Readiness, Cognitive Skills, Measuring College Readiness, Intelligence Theories, Students’ and Educators’ Voice.
Chapter I: Statement of the Problem

Introduction

The problem of under-preparedness of students in the United States dates back to the 1800’s when the University of Wisconsin began providing high-school level coursework to college students (Mulvey, 2008). During the 19th century, universities were admitting many academically underprepared college students and were teaching them elementary school coursework and high-school coursework (Mulvey, 2008). In brief, academic under-preparedness has been part of public higher-education in the United States for more than 200 years (Doninger, 2009).

Students are enrolling in college in record numbers, yet a high percentage of students need remediation after high school to be ready for college-level courses (California Department of Education, 2012; Conley, 2007; Porter & Polikoff, 2011). Across the nation, 42 percent of Community College freshmen and 20 percent of freshmen in four-year institutions enroll in at least one remedial course (National Center for Education Statics, 2004). According to the U.S. Bureau of Labor Statistics, the more than 40 million new jobs expected by the year 2018 will require at least an Associate’s degree, and most will require a Bachelor’s degree or higher. However, degree completion dropped to 35.9 percent for Californians under 35 years of age. As a result of these trends, California’s labor market is projected to be short one million college educated workers by 2025, leading to the most severe drop in per-capita income in the nation (California Department of Education, 2011).

Because many students do not learn the basic skills needed to succeed in college or work while attending high school, the nation loses more than $3.7 billion a year. This
figure includes $1.4 billion to provide remedial education to students who have recently completed high school. In addition, this figure factors in the almost $2.3 billion that the economy loses because remedial reading students are more likely to drop out of college without a degree, thereby reducing their earning potential (Alliance for Excellent Education, 2006). The Alliance for Excellent Education (2006) stated that in order to prepare students for forthcoming economic demands, major changes in California’s secondary and higher education systems are required.

High school systems are failing to provide students with clear and accurate signals about the knowledge and skills they will need to acquire for a seamless transition from one system to a different one, where most of the students arrive unprepared for the intellectual demands and expectations of a postsecondary education (Cohen, 2008; Conley, 2003). The disconnection between the academic expectations of K-12 schools and postsecondary education is one of the primary reasons for the poor preparation of many high school graduates (Conley, 2007). However, advocates for K-12 school reform to improve college readiness typically focus their attention only on accountability policies such as high-stakes testing (Apple, 2000; Finn, 1990; Hanushek & Raymond, 2005; Ravitch & Viteritti, 1997).

Many politicians and policy makers link accountability and school performance. As a result, conservative reform efforts such as the No Child Left Behind Act and other prominent examples of reform efforts such as the National Alliance for Restructuring Education, the New American School Development Corporation, The Kentucky Education Reform Act, and the Maryland State Assessment Program only emphasized increasing school productivity and accountability due to their key strategies and efforts to
strengthen school accountability (Finn, 1990; Newmann, King, & Rigdon, 1997). Their emphasis is on measuring student outcomes through standardized testing, rather than on equalizing school resources (Conley, 2007).

In contrast to those conservative reforms, more liberal voices such as Fred Newmann et al. (1997) disagreed with the conservative school reform assumption that strong external accountability forces such as local districts, states, and other agents external to schools, especially businesses and organizations of citizens and parents will induce schools to improve students’ achievement. In their argument they stated that the first factor preventing those conservative policies from working in practice is the difficulty of implementing comprehensive external accountability across U.S. schools. The second is the recognition that, even if external accountability could be implemented, this would not guarantee high performance of schools that began with low organizational capacity (i.e., inadequate human, technical, and social resources). The third factor is that strong accountability can occur internally within a school community; it need not be prompted by demands from external agencies (Newmann, et al., 1997).

Arne Duncan, Secretary of U.S. Department of Education, commented on educational reform and accountability during the 2009 Governors’ Education Symposium. He stated that the educational standards must ensure that students will be ready to succeed in college or in the work place upon high school graduation.

For too long, we've been lying to kids. We (policy maker and educators) tell them they're doing fine, give them good grades, and tell them they're proficient on state tests that aren't challenging. Then they get to college and they're put into remedial classes. Or they go into the workforce and
find out that they don’t have the skills they need to succeed (United States Department of Education, 2009).

Duncan also stressed the need for rigorous standards (the Common Core State Standards) to be in alignment with benchmarked tests so that teachers can understand how their students are doing during the school year and can target instruction accordingly to ensure college and career readiness. “Our children deserve to graduate from high school prepared for college and the jobs of the future” (United States Department of Education, 2009). CCSS offer the possibility to better inform students’ academic outcomes and facilitate their readiness to fulfill the demands of post-secondary and career expectations.

The CCSS are different from previous standards. They are more rigorous and require a focus on depth over breadth of content knowledge; hence it will be increasingly important for students to develop strong noncognitive learning skills to cope with new academic demands. As Venezia and Jeager (2013) remind us, the possibility of students achieving college and career readiness in response to the CCSS will depend on the generation of students’ data (i.e., formative student assessments indicating their needs, and dispositions) and the necessary professional development to educators to facilitate students’ academic achievement while developing noncognitive foundations and skills (p.117).

Liberal reforms (reforms whose purpose is the reauthorization and empowerment of great teachers, great principals, and great local communities to “raise the bar” for college and career ready standards via CCSS), such as Race to the Top authorized under the American Recovery and Reinvestment Act of 2009 (ARRA), provide funding to a consortia of states such as the Partnership for Assessment of Readiness for College and
Careers (PARCC), the Smarter Balanced Assessment Consortium, and the State Consortium on Board Examination Systems. This funding supports the development of assessments that are valid, support and inform instruction, provide accurate information about what students know and can do, and measure student achievement against standards designed to ensure that all students gain the knowledge and skills needed to succeed in college and the workplace. These assessments are intended to play a critical role in educational systems, and provide administrators, educators, parents, and students with the data and information needed to continuously improve teaching and learning (United States Department of Education, 2013).

However, these measures do not capture the intellectual and personal skills students will need for postsecondary success. How to measure and report on academic readiness for college is an important policy issue receiving attention from the National Assessment Governing Board, Achieve, and many states (Porter & Polikoff, 2011). Students are taught to strive to achieve higher grades and test scores without necessarily understanding key content knowledge (i.e., English, Mathematics, Social Studies, Science, World Languages, and the Arts). This lack of understanding is often a result of the students’ lack of noncognitive skills (Conley, 2007).

Molner (2012) noted that while the focus of parents and institutions concerned about college readiness criteria has been primarily on students’ GPA, SAT and/or ACT scores, AP or IB credentials and extracurricular activities, noncognitive skills (also commonly referred to as “soft skills”) are indispensable components of students’ academic success. The term noncognitive skills refers to skills such as those practical and creative skills routinely not included in the traditional SAT testing (Sternberg, 2010) that
integrate analytical, practical, and creative ways of thinking that influence an individual’s overall behavior (Sternberg, 2008). These sets of attitudes, behaviors, and strategies include, (1) self-regulation (i.e., independence in organizing, looking, and rehearsing information, resilience, self-evaluation, and learning strategies), (2) self-efficacy (i.e., confidence, dispositions to approach and persevere, positive attitude, ability to multi-task, ability to develop a self-identity, ability to develop a sense of purpose, search for direction and commitment, goal oriented, and self-driven), (3) self-monitoring (i.e., self-awareness, self-reflective, self-corrective, tolerant of ambiguity, and ability to employ and modify a range of learning strategies), (4) interpersonal and social skills (i.e., team player, decision making, communication skills, adaptability to work under pressure, accountable, emotionally secure, creative, responsible, grateful, emphatic, and respectful), and (5) academic behaviors (i.e. regular class attendance, ready to work, paying attention, participation, time management, resourceful, and accepting and giving criticism) (Dixon, Belnap, Albrecht, & Lee, 2010; Bransford, Brown, & Cocking, 2000; Bandura, 1986; Rosenthal & Bandura, 1978; Robert, (n.d.); Schunk, 1986; Zimmerman, 1989; Bandura, 1997; Wolters, 1998; Zimmerman & Martinez-Pons, 1986).

Although noncognitive skills are difficult to measure, they are as valuable as academic content skills. In many cases these noncognitive skills are never addressed by parents or educators in the process of preparing students to transition to college successfully, even though noncognitive skills are as fundamental to success as academic abilities (Conley, 2007; Molner, 2012; Venezia & Jeager 2013). Many students display a lack of mastery in important noncognitive areas such as personal goal-setting, academic behaviors, self-monitoring, self-regulation, self-efficacy, self-advocacy, interpersonal and
social skills, and resourcefulness in problem-solving.

In several studies, college faculty nationwide, regardless of the selectivity of the university, expressed near-universal agreement that most students arrive unprepared for the intellectual demands and expectations of postsecondary schooling (Conley, 2003). According to Conley (2007), college readiness is a multi-faceted concept comprising numerous variables that include factors both internal and external to the school environment such as key cognitive strategies (i.e., intellectual openness, inquisitiveness, interpretation, precision and accuracy, and problem solving), key content knowledge (i.e., English, Mathematics, Social Studies, World Language, and the Arts), academic behaviors (i.e., self-awareness, self-monitoring, and self-control, and contextual skills (i.e., interpersonal and social skills).

The better understanding policy makers have about the relationship of noncognitive skills to students’ academic achievement, the better understanding they will have about the need to develop accurate assessments to measure students’ college readiness. Accurate assessments will also provide educators with the necessary support systems to help students fulfill their academic needs and prepare them for a successful college transition.

**Background of the Problem**

The Kaleidoscope study at Tufts University, first introduced in 2006, combined noncognitive factors (i.e., a creative school practical skill rubric) with standardized test scores and students’ grade point averages or GPA for admissions assessment (Sternberg & Coffin, 2010). Research evidence in the Kaleidoscope study showed the students who test at high-levels for creative and practical skills can achieve at higher academic levels,
when taught in a manner that matches their skills (Sternberg, 2009). In a separate study called the “Rainbow Project study” conducted in 2006, Sternberg (2009) reported that assessments of noncognitive measures (i.e., creative and practical skills) and assessments of cognitive measures (i.e., analytical skills), when combined with standardized test results, could double the accuracy of assessing students’ academic preparedness over using standardized testing alone.

According to Reigeluth and Duffy (2007), despite these efforts the overall design of public high school education has not changed much since the 1983 Nation at Risk report and the resulting schools accountability movement. Fike and Fike (2008) reported that two million underprepared students nationwide may not be able to stay in college without receiving developmental education. Their lack of basic and fundamental noncognitive skills cause them to find it difficult to cope with the normal academic course workload. Developmental education has services at different levels to prepare students to complete their coursework; their success is contingent on students building both their noncognitive and cognitive skills (Boylan, 2008; Boylan, 2009; Fike & Fike, 2008; Heckman, 2008; Sternberg, 2008; Venezia & Jaeger, 2013).

High school students deserve to receive the basic and fundamental skills needed to cope with postsecondary academic demands. The omission of noncognitive skills on high school students’ cognitive assessments limits the accuracy of the assessments of students’ academic preparedness. Students are entitled to receive an academic preparation based on accurate assessment tests in better alignment with their individual capabilities (cognitive and noncognitive) to be able to respond to postsecondary academic demands and reach college and career readiness.
High schools are beginning to embrace the triangulation of data about noncognitive skills in an effort to create change. Gottfredson and Saklofske (2009) noted the trend in research is to find ways to partner cognitive and noncognitive viewpoints to understand cognitive competencies. Similarly, Heckman (2008) reported the ability to measure noncognitive skills is just beginning to develop within the 21st century, and evidence is beginning to confirm that students can improve their cognitive skills training by primarily focusing on their noncognitive skills.

The triangulation of cognitive data (i.e., academic factors) and noncognitive data (i.e., affective factors to assess if the students had determination, autonomy, and the willingness to seek help as well as work hard on assignments) may provide educators with a more accurate assessment of students’ academic preparedness (Boylan 2009; Schmitt, Keeney, Oswald, Pleskac, Billington, Sinha, & Zorzie 2009; Sternberg, 2008). In short, research suggests that investing in building noncognitive skills produces more benefits than investing solely in building cognitive skills for adolescents and adults (Cunha & Heckman, 2009; Conley, 2007; Boylan 2009; Duckworth, Peterson, Matthews, & Kelly, 2007). At the moment, however, the placement assessment for students entering college typically consists only of a cognitive test (i.e., SAT or ACT respectively) for testing academic skills (Mulvey, 2008) such as reading, writing, and math (Mathews, 2010; Engstrom & Tinto, 2008; Stenberg, 2009).

A study conducted by Heckman, Stixrud, and Urzua (2006) presented new evidence that both cognitive and noncognitive abilities determined social and economic success, stating that noncognitive abilities were as important, if not more important, for educational outcomes, than cognitive abilities. Noncognitive abilities affect the acquisition of skills and
productivity in the market, while cognitive abilities affect market productivity and skill acquisition. Underprepared students are less likely to be employed and to acquire work experience, and are more likely to have lower levels of those noncognitive characteristics valued in the labor market (Heckman, Stixrud, & Urzua, 2006).

Similarly, a report sponsored by the Association of American Universities, identified the skills and knowledge needed by students during their first year of college. The report’s outcome resulted in the development of the Knowledge and Skills for University Success Standards (KSUS) to inform secondary schools of what students need to know to be successful during the critical first year of college. In their book *Opening the Common Core: How To Bring all Students to College and Career Readiness*, Burris and Garrity (2012) stated that besides the six curricular areas covered by the academic standards, a number of habits of mind were key characteristics shared by many successful first-year college students: they were inquisitive, willing to take risks, accepted feedback, were able to learn from mistakes, were skilled in critical, analytical thinking, were able to draw inferences and reach conclusions, and were skilled in supporting opinions with sound and coherent arguments. In a different study, the Intersegmental Committee of the Academic Senates (ICAS) also refers to these key characteristics as “Habits of Mind” (ICAS, 2002). These are noncognitive skills (Dixon, Belnap, Albrecht, & Lee, 2010; Bandura, 1997; Bransford, Brown, & Cocking, 2000; Bandura, 1986; Molner 2012; Rosenthal & Bandura, 1978; Robert, (n.d.); Schunk, 1986; Sternberg, 2008; Sternberg, 2010; Zimmerman, 1989; Wolters, 1998; Zimmerman & Martinez-Pons, 1986) or “soft skills” (Dixon, Belnap, Albrecht, & Lee, 2010), and are defined as the foundational dispositions that a well-prepared student has for academic reading, writing, and critical
thinking.

Regardless of what they are called, it becomes evident that noncognitive skills are central to student success. In an effort to learn about student understanding of these skills and their importance for college readiness, this study will explore the significance of noncognitive learning skills to high school students, and the influence they might have in shaping their readiness to successfully transition to a post-secondary education.

**Definition of Terms**

Due to the large number of terms that refer to the same concept (i.e., *habits of mind, soft skills, life skills, non-cognitive abilities, and creative skills* among many others), the term *noncognitive skills* was selected to be used consistently during this research study. This decision was solely for consistency purposes and does not diminish the value or meaning for any of the other terms commonly used (i.e., *soft skills, habits of mind, or affective factors*). Typically, the term *cognitive skills* is associated with students’ learning; therefore it was considered appropriate to use *noncognitive skills* to explore additional components that contribute to students’ learning.

*College 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 that offers a baccalaureate degree or transfer to a baccalaureate program (Conley, 2008; Conley, 2011). The *successful college-ready student* envisioned by this definition understands what is expected in college courses, can cope with the content knowledge, and can acquire the key intellectual lessons and dispositions the course is designed to convey and develop (Conley, 2007). These students do well on cognitive tests such as math, reading, and English (Engstrom & Tinto, 2008),
and have the noncognitive skills needed to fulfill and sustain a post-secondary education. *Cognitive skills* describe an individual’s ability to solve intellectual problems and tasks, in situations where success is determined more by the content knowledge than by his or her noncognitive skills and dispositions (VanLehn, 1996).

*Habits of mind* is another term used by the Intersegmental Committee of the Academic Senates (ICAS) and others to describe some of the noncognitive skills to be explored in this study as foundational dispositions that well-prepared students have for academic reading, writing, and critical thinking. The following intellectual habits of mind are identified as important for students’ success: curiosity, a willingness to experiment with new ideas, the appreciation of other’s points of view, the ability to challenge one’s own beliefs, engagement in intellectual discussion, the ability to ask provocative questions, the ability to generate hypothesis, respect for other’s viewpoints, an ability to read with awareness of self and others, attentiveness in class, preparation for class, completing assignments on time, and contributing to class discussion (ICAS, 2002).

*Underprepared students* are those students lacking the traditional cognitive skills to master subjects such as math, reading, or English (Boylan, 2009); these students are also called *academically at-risk students* (Henderson, 2009). Typically these students also lack noncognitive skill sets (Araujo, Gottlieb, & Moreira, 2007) or cannot read and write academically, or do college-level math. Consequently, these students are unable to access a post-secondary education.

**Purpose of the Study**

This study explored the perceptions of students and educators regarding the importance of noncognitive skills for students’ learning. Research results provided
empirical information regarding the impact that the explicit development of students’ noncognitive skills has when combined with current practices that focus solely on cognitive skills. The research study aimed to better understand the noncognitive readiness of high school students prior to their transitioning to a post-secondary educational system. This data could provide relevant information to educators as they work to improve college readiness and improve post-secondary academic performance, thereby better serving the students’ needs and college aspirations as they prepare for their college transition.

**Significance of the Study to the Problem**

This study has the potential to integrate study outcomes with current practices in the K-12 system in order to improve academic and college readiness. Our citizens need to be better educated and more skilled. They need to become lifelong learners who can adapt to the rapidly changing and evolving demands of the modern world (Weinstein, Acee, & Jung, 2011). The more information policy makers and school stakeholders obtain regarding students’ academic and nonacademic skills, the better able they will be to design educational experiences that prepare those students for future academic and career demands.

**Significance of the Study to Educational Leadership**

Educational professionals are requesting more research about this topic in order to be able to address this critical issue—the educational achievement crisis—and to develop better research-based educational programs and implementation (Sternberg, Kaplan, & Borck, 2007). The outcomes of this research study may provide K-12 educational leaders with a better understanding of current practices in reference to college readiness and
demands. It will facilitate the process of providing educators with improved support systems directly based and developed according to individual student’s needs and capabilities. In fact, Hand and Payne (2008) noted that students who felt supported were more likely to continue pursuing their academic goals. If educators could focus on students’ noncognitive abilities as well as on their cognitive abilities, they could demonstrate to students their dispositions, providing the needed support to help them succeed in this important academic preparation. To offer this type of support, developmental education leadership will need to better understand the ways that noncognitive skills influence students’ academic preparedness.

**Research Question and Research Sub-Questions**

To better understand students’ and educators’ perceptions about college readiness in relationship to the impact noncognitive skills may have in students’ preparation, the research questions that will guide this study are:

What are the students’ and educators’ perceptions about the relevance and impact of noncognitive learning skills in high socioeconomic high school students’ academic performance when determining their college readiness?

1. What are educators’ perceptions and understanding about the relevance of noncognitive learning skills as they prepare students to successfully transition to a higher education system?

2. What are the students’ perceptions about the importance of noncognitive learning skills in their preparation to transition successfully to a higher education system?
Overview of Conceptual Framework

Mayer (2008) suggested that research questions should have a theoretical grounding (i.e., theory should be supported in data collected directly from the field and from the participants) with educational implications to advance the field in addressing practical issues that may lead to improved learning. According to Creswell (2007), the theoretical framework of a research study can include the historic context of the problem. Consequently, this study is situated in a context that has determined that cognitive testing used for assessing college readiness alone does not provide a complete and accurate assessment (Moore, 2007; Schmitt et al., 2009; Sternberg, 2008).

In an effort to develop a conceptual framework to inform the purpose of this study, the studies of Conley (2007), Conley (2008), and Molnar (2012) were taken into account. Conley (2007) introduces a model that offers a more comprehensive look at what it means to be college-ready; the student has both the academic background and the foundational dispositions (ICAS, 2002) known as noncognitive skills to achieve college readiness and fulfill post-secondary expectations. Dispositions are the values, commitments, and professional ethics that influence behaviors toward students, families, colleagues, and communities and which affect student learning and achievement, motivation, and development (Grand Canyon University, 2014).

Conley (2007) relies on the interconnectedness of all of the facets contained in his model: (1) key cognitive strategies, (2) key content knowledge, (3) academic behaviors, and (4) contextual skills. For this research study, the adopted facet—a set of noncognitive skills—from Conley’s model included in the research framework was academic behaviors and contextual skills (renamed interpersonal and social skills in the amended
framework). Similarly, the research work of Molnar (2012) identified the necessary noncognitive skills that students seemed to be lacking upon transition to a post-secondary educational system: personal goal-setting, resilience, responsibility, self-regulation, self-advocacy, and resourcefulness in problem-solving, and self-comforting. Chapter two provides a detailed definition about each facet to better explain the relevance of the selected noncognitive skills in the context of the conceptual framework guiding this study.

The theoretical framework guiding this study is a compilation of Conley’s (2007), Conley’s (2008) and Molnar’s (2012) studies. For this study, a group of noncognitive skills were purposefully selected and adapted to fit the needs and characteristics of a high school educators and students. Embracing the two earlier models facilitated the development of a broader and more comprehensive conceptual framework in better alignment with high school learning environments. The set of noncognitive skills categories characterized by a set of attitudes, behaviors and strategies to guide this study are: (1) self-regulation, (2) self-efficacy, (3) self-monitoring, (4) interpersonal and social skills, and (5) academic behaviors.

Figure 1.1 provides the graphic representation of the conceptual framework that will guide this study which explores student and educator perceptions regarding the impact of these noncognitive skills while developing students’ readiness for college.
Further explanation about each individual component presented in the framework related to the five selected noncognitive categories was provided in chapter two.

**Overview of Research Methods**

In this qualitative study, the researcher used an interpretivist theoretical framework within a grounded theory tradition approach to analyze the phenomenon (Creswell, 2007). This qualitative method was appropriate because it allowed participants to discuss their learning experiences with descriptions and interpretations to express their individual points of view (Goretskaya, 2006). The criteria to select the sample were
purposive and selective; the participants will be high school students, teachers, and counselors. The interpretivist research approach to conduct this study was one in which the researcher was viewed as an important instrument in data collection, using personal involvement with a naturalistic and inductive approach with participants in a search for patterns and differences in order to develop theory grounded in participants’ own experiences (Glense, 2011).

The study was conducted in the researcher’s work setting, a public high school within Los Angeles County. The interpretivist researcher’s role was essentially that of “passionate participant” (Glense, 2011, p.29). In this role, researchers recognize and acknowledge that their own background shapes their interpretations, and they thus place themselves in the research to acknowledge their own culture and social and historical experiences (Glense, 2011). Due to the close interaction of the researcher with participants in the study, it was of great relevance to recognize and create awareness of the researcher’s personal biases, and to identify the positive and negative implications they may have provided to the study. The study was based on data collected from semi-constructed interviews and observations. The researcher collected raw data and performed continuous data sampling, coding, categorizing, and comparison of data for analysis.

**Overview of Design Appropriateness**

The interpretivist methodology to guide this research study was within a grounded theory tradition. This methodology was appropriate to the research study since the phenomenon under study was socially constructed, and its variables were complex and difficult to measure. According to Bloomberg and Volpe (2012), the basic tenet of social
interpretivism is that reality is socially, culturally, and historically constructed. Inquiry is viewed as value-bound rather than value–free, and the process of inquiry is influenced by the researcher and the context under study (p. 28). According to Creswell (2012), the grounded theory tradition generates a theory when existing theories do not address the problem or the participants under study. This exploratory study developed theory grounded in collected data directly from the field and from participants to generate or discover a theory of a process, and action, or an interaction grounded in the view of the research participants (Bloomberg & Volpe, 2012).

Scope

Theoretical sampling allowed the researcher to examine individuals who contributed to the evolving theory informing the study (Bloomberg & Volpe, 2012). The researcher purposively selected a total of twenty-one research participants and prepared interview protocols and needed forms for all participants in order to be in full compliance with the human subjects’ protection requirements and guidelines.

Interviews were the primary technique used and were supplemented with field observations (Rallis & Rossman, 2012). The researcher conducted a total of eleven interviews with students. The first series of interviews were conducted with a total of 11 students who volunteer to participate in the study. The second series of interviews was conducted with six teachers and four counselors respectively. The researcher did a total of four observations of academic counselors and senior student’s interactions.

During data collection, data analysis and interpretation, and dissemination of research findings related to research participants, the researcher addressed confidentiality policies making sure participants understood how the raw data was collected, coded, and
presented. The researcher informed participants about the constant efforts made during the research study to address ethical issues. Credibility was also addressed as an important component to make an accurate representation of the participants’ voices (Bloomberg & Volpe, 2012).

**Limitations of the Study**

A limitation of this study was that the researcher was able to collect research data solely during a single school year and prior to senior students’ graduation. This limited the study from tracking participating students upon graduation and during their college transition. This study was further limited by conducting research at only one site due to time constraints; a multi-site study may lead to different results. Mathews (2010) reported that the phenomenological design could become a limitation only when the phenomenon entails an understanding without further exploration. The outcomes of this research study can be only generalized to site samples similar to the public high school under study.

**Delimitations of the Study**

The study was delimited to a small group of teachers, students and counselors in a public high school setting, whose views were collected through interviews and observations using open-ended questions. Thus, it did not include the viewpoints of external sources or of, any students and educators in other types of settings.

**Organization**

Chapter I includes the (a) statement of the problem, (b) the purpose of the study (c) the significance of the study, (d) the theoretical framework, (e) an overview of research methods, (f) an overview of design appropriateness, (g) the study’s scope, (h) the study’s limitations and delimitations, (i) and a brief description of the chapters’
organization for this exploratory study. Chapter II introduces the phenomenon of college readiness in reference to noncognitive skills. The literature review includes studies surrounding the research problem, gaps in the literature, and key points relating to the central research question. The chapter presented a discussion of contrasting opinions, an analysis of the review, and a discussion of general key points. Chapter III details the methodology to be use in the research study. Chapter IV presents the study’s findings and Chapter V provides discussions and conclusions of the phenomena under study.
Chapter II: Review of Literature

Introduction

Chapter I identified some of the possible causes of students’ underpreparedness for college. It also discussed the financial implications for the economy and briefly argued that the omission of noncognitive skills on high school students’ cognitive assessments is limiting the accuracy of the assessments of students’ academic preparedness.

This chapter explains how historical factors influenced contemporary assessment designs even though the intelligence theories on which they are based such as measurable fixed intelligence or G-factor intelligence are outdated. These outdated intelligence theories that are still ingrained in educational assessment design limit the assessments’ ability to judge college readiness (Boylan & Bonham, 2007; Boyer & Butner, 2007; Parmer & Cutler, 2007). The chapter presents a discussion of current policies and practices, a historical overview of the problem, and the significance of noncognitive skills. In addition, the conceptual research framework, gaps in the literature review and summary are included. Lastly, the literature review includes issues that explain why noncognitive skills are not incorporated as part of academic development assessments.

The discussion of intelligence theories illustrates the limited accuracy of standardized assessments; discusses how those assessments evolved, and explains why they remained in use even though research shows this method of evaluating students is out-of-date. Vygotsky’s (1978) developmental theory stating that social-cultural interactions are fundamental to higher mental functions was instrumental in showing a possible assessment mismatch between understanding the importance of noncognitive abilities for underprepared college students and the dominant use of standardized testing. That is, it
suggests why currently used assessments indicate that particular students are well-prepared for college but when they arrive on campus; their performance suggests quite the opposite.

**Problem Statement**

Students are responding to, and acting upon, the current expectations of our ever-changing educational system as well as the economic demands they will face after college graduation. Although they are enrolling in college institutions in record numbers, a high percentage of students are arriving at college academically unprepared. Each year over 2,000,000 students enroll in developmental (remedial) courses in U.S. colleges and universities (Saxon, Sullivan, Boylan, & Forrest, 2005). According to the National Center for Education Statistics (2004), most colleges report that it takes students about a year to complete their developmental education requirements. As a result, a large number of undergraduates must stay in school longer and pay more in order to complete developmental course requirements (Boylan, 2009; Alliance for Excellence Education, 2006).

The United States has a closed educational system in which a limited set of skills such as analytical skills and memory are valued. This closed educational system was based on Charles Spearman’s g-factor theory, in which only abilities such as memory and analytical abilities as measured by IQ tests were assessed (Stenberg, 2010). Two standardized tests developed from this model have monopolized the college admissions market in the United States—the SAT and the ACT (Stenberg, 2010).

According to Marzano, Pickering, and McTighe (1993), until recently for the most part state high-stakes standardized tests required students to recall or recognize only
fragmented and isolated bits of information. Tests containing performance tasks (i.e., assessments which require students to demonstrate that they have mastered specific skills and competencies by performing or producing a product) were not used due to cost and time limitations. Further, such tests rarely require students to apply their learning and almost never require students to exhibit proficiency in higher forms of cognition (Marzano et al., 1993).

Based on the premise that United States public education policy focuses only on cognitive testing for assessing student preparation, Heckman (2008) stated that the education in United States contains policies that underrate students’ noncognitive abilities by focusing primarily on cognitive learning strategies as the only measure to determine college readiness. As a result the K-12 educational system deprives students of the benefits that noncognitive skills can bring to support their performance in college and career preparation. Standardized tests and grades have serious limitations for telling us what we need to know about the academic potential of students from diverse backgrounds and cultures (Sedlacek, 2004). Huffman (2009) suggested that although individual schools and teachers are incorporating innovations into the classroom, public education has not changed within the last 50 years, and the risk of maintaining a public higher education system that does not use effective practices is far too high.

In the context of college preparation, the SAT and ACT are common indicators of educational quality requiring the application of intellectual tasks (California Department of Education, 2011). The IQ test is a good cognitive assessment measure for assessing analytical skills and memory, but these skills (i.e., logic, pattern recognition, verbal skills, visual skills, spatial orientation, general knowledge, classification, and short term memory)
are only a small number of skills necessary for college preparedness (Sternberg, 2010). As
accurate as these standardized instruments may be in assessing cognitive skills, they do not
measure other factors equally important to student success. These factors include a range of
noncognitive skills such as attitude toward learning, motivation, autonomy, willingness to
seek and accept help, desire to affiliate with peers or instructors, or willingness to expand
effort on academic tasks (Sedlacek, 2004).

Measuring College Readiness

According to Roderick, Nagaoka, and Coca (2009), gaining access to, and
succeeding in, college requires students to have high levels of content knowledge, core
academic skills, and non-cognitive skills—skills that colleges traditionally assess by
looking at students' high school coursework, their performance on achievement exams, and
their relative class rank and grade point averages (GPA). Colleges use students' coursework
to identify whether applicants have been exposed to content that prepares them for
introductory college courses. They use achievement tests primarily as standardized
indicators of students' cognitive ability, basic skills, content knowledge, and core academic
skills. In addition, they use course grades to measure whether students have mastered the
material in their classes and have developed core academic skills and content knowledge.
Grades also measure the third area of college readiness—noncognitive skills—particularly
whether students have demonstrated the work effort and study skills needed to meet the
demands of a college environment (Roderick, Nagaoka, & Coca, 2009).

The shifting interest from cognitive measures to noncognitive measures (i.e.,
questionnaires and self-report measures assessing metacognitive skills, study attitudes,
personality traits, and study habits) is the result of a shifting focus of colleges from
selection and placement toward educational practices such as instruction and counseling (Gottfredson & Saklofske, 2009). Boylan (2009) used affective factors or noncognitive factors (instruments to measure how students feel or what they believe themselves) to assess if the students had determination, autonomy, the willingness to seek help, and a willingness to work hard on assignments. According to Boylan (2009), most colleges in the U.S. consider these noncognitive factors as important as cognitive skills to determine academic preparedness. Boylan (2009) urged colleges to use assessments that triangulate these affective factors with cognitive and personal factors for targeted interventions to help academically unprepared college students.

**Current Policies and Practices**

Presently, when high school students aspire to attend college, they have to navigate an environment of disconnected curricula, assessments, and academic behaviors such as skills, attitudes, and strategies to improve academic achievement and expectations (Callan, Finney, Kirst, Usdan, & Venezia, 2006). According to Callan et al. (2006), the K–12 and postsecondary education systems in the United States should be working together to improve college readiness and ensure success for all students, yet our nation’s educational systems remain sharply divided. These fractured and fragmented systems waste taxpayer money on duplicated and inefficient uses of resources, while creating barriers for high school students who seek to prepare for college. These systems undermine efforts to improve college readiness in secondary educations, and consequently affect college completion rates (Callan et al., 2006).

In a nation experiencing constant educational reforms, policy makers and educators have focused primarily on learning standards in order to improve academic achievement.
Standards are customarily taken more seriously when they are connected to formal assessments. The assessments become the blueprint for instructional quality and improvement, shaping and influencing instruction. When social and emotional learning standards were introduced in Illinois in order to connect to assessments and improve academic achievement, schools responded by developing plans, selecting evidence-based programs, and seeking out high-quality professional development in social and emotional learning for teachers (Dusenbury, Mart, Weissberg, & Zadrazil, 2011). With funding from the Buena Vista Foundation and NoVo Foundation, CASEL and the University of Illinois at Chicago Social Emotional Learning Research Group conducted a review of educational standards related to social and emotional behaviors from preschool to high school levels in all fifty states to understand whether and how states currently address social and emotional learning in their learning standards (Dusenbury, Mart, Weissberg, & Zadrazil, 2011). These assessments informed the cognitive and noncognitive abilities of students to help educators to improve instructional quality and students’ academic achievement.

In an effort to improve learning and help students prepare for college and career success, in 2009 the Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA) committed to developing academic standards. They created the kindergarten to twelfth grade Common Core State Standards (CCSS) for English language arts, literacy in history/social studies and science and technical subjects and for mathematics (California Department of Education, 2013). The standards offer schools and districts the possibility to improve college and career readiness due to their higher academic demands and their prominent emphasis on 21st century skills such as critical thinking, problem solving, communication and collaboration,
flexibility and adaptability, initiative and self-direction, productivity and accountability, and leadership and responsibility (The Partnership for 21st Century Skills, 2009).

According to Venezia and Jeager (2013), educators will be able to support students in achieving college and career readiness as described by CCSS successfully if they stress the development of strong noncognitive foundations in addition to the cognitive skills. The possibility of all students achieving college and career readiness to fulfill the CCSS’s expectations will depend on these standards being supplemented with the necessary professional development to enable educators to help all students meet academic college readiness standards and to improve their practice with a common and clear purpose (Venezia & Jeager, 2013).

Current policy efforts to prepare students for college and career, rest on the assumption that a more rigorous high school curriculum will improve students’ college readiness. However, according to Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson, and Beechum (2012), what matters most for college readiness is not which courses students take, or what their test scores are, but how well students perform in those courses, as measured by their high school course grades. Grades are understood to capture some important attributes over and above the content that test scores measure. Grades also reflect the degree to which students have demonstrated a range of the academic behaviors, attitudes, and strategies that are critical for success in school and in later life. These are commonly known as noncognitive skills (Conley, 2003; Conley, 2007; Farrington et al., 2012; Farkas, 2003; Paris & Winograd, 1990; Venezia & Jaeger, 2013). Currently, emphasis is placed on students graduating from high school and their successful preparation for college and career readiness.
Cognitive and Noncognitive Skills

Schmitt, Keeney, Oswald, Pleskac, Billington, Sinha, and Zorzie (2009) demonstrated that noncognitive measures added to standard cognitive tests incrementally increased the assessment accuracy of students’ academic preparedness during college admission. Gottfredson and Saklofske (2009) noted that the trend in research is to find ways to triangulate cognitive and noncognitive methods of assessments to improve common indicators of educational quality and college readiness. The new Smarter Balanced and PAARC assessments for the CCSS aim to measure and provide the time for students to demonstrate those proficiencies and higher forms of cognitions.

Cognitive skills. When an individual acquires the ability to solve problems in intellectual tasks where success is determined more by the subject’s knowledge rather than by physical and emotional proficiency, the individual has acquired a cognitive skill (VanLehn 1996). Researchers in cognitive skills acquisition study how people learn to accomplish complex, knowledge-intensive tasks, and how they become experts in their fields (VanLehn, 1996). Conley (2007) defines key cognitive strategies as patterns of intellectual behavior that lead to the development of cognitive strategies and capabilities necessary for college-level work. These strategies involved a more disciplined approach to thinking. The following are the most important manifestations of this way of thinking: intellectual openness, inquisitiveness, analysis, reasoning, interpretation, precision and accuracy, and problem solving (Conley, 2007). Fitts (1964) distinguished three phases of cognitive skills acquisition. During the early phase, subjects try to understand the domain knowledge without yet trying to apply it. The intermediate phase begins when subjects turn their attention to apply domain knowledge by solving problems. And during the late phase,
subjects improve in speed and accuracy as they practice, even though their domain understanding and their basic problem-solving approach do not change.

The following Table 2.1 was created from a list of skills and abilities covered in the IQ test currently utilized to measure intelligence (IQ Test Labs., 2013).

Table 2.1

*IQ Skills and Abilities.*

<table>
<thead>
<tr>
<th>Skill</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logic</td>
<td>Measures inductive logic: the ability to discover relationships in data in order to create rules. Measures deductive logic: the ability to apply rules and make accurate deductions, thus allowing an individual to reason from the general to the specific.</td>
</tr>
<tr>
<td>Pattern Recognition</td>
<td>Measures the ability to identify a pattern in information that may at first seem to be unrelated.</td>
</tr>
<tr>
<td>Verbal Skills</td>
<td>Measures the proficiency in reading and comprehension with respect to information presented in writing.</td>
</tr>
<tr>
<td>Visual Skills</td>
<td>Measures the ability to determine what objects will look like if they are rotated or folded, or if their components are moved or rearranged.</td>
</tr>
<tr>
<td>Spatial Orientation</td>
<td>Assesses the ability to determine the relative position of objects around you or your position in relation to the environment.</td>
</tr>
<tr>
<td>General Knowledge</td>
<td>Measures the knowledge acquired through education and experience.</td>
</tr>
<tr>
<td>Classification Skills</td>
<td>Assesses the ability to organize collections of items by finding similarities and differences between them.</td>
</tr>
<tr>
<td>Short Term Memory (STM)</td>
<td>Measures the ability to store and manipulate material for a brief period of time.</td>
</tr>
</tbody>
</table>

Source of information, IQ Test Labs. (2013).

**Noncognitive skills.** Noncognitive skills are any skills that are not determined by the subject’s domain knowledge proficiency (VanLehn, 1996). According to the definition provided by the Institute of Education at the University of London, the term “noncognitive skills” refers to a set of attitudes, behaviors, and strategies that are thought to underpin success in school and at work, such as motivation, perseverance, self-control, emotional maturity, empathy, interpersonal skills, verbal and non-verbal communication, that influences the overall behavior of a person (Morrison & Schoon, 2013; Robert, C.)
Noncognitive skills are usually contrasted with cognitive abilities in areas such as literacy and numeracy, which are measured by academic tests. Noncognitive skills are increasingly considered to be as important as or even more important than cognitive skills or IQ in determining academic and employment outcomes (Borghans, Meijers, & Weel, 2008; Boylan, 2009; Callan et al., 2006; Conley, 2003; Conley, 2007; Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Seligman, 2005; Farrington et al., 2012; Farkas, 2003; Heckman, 2008; Paris & Winograd, 1990; VanLehn, 1996; Venezia & Jaeger, 2013; Weel, 2008; Wolfe & Johnson, 1995). Indeed, there is now growing attention from policymakers on how noncognitive skills can be developed in children and young people (Morrison & Schoon, 2013).

Surprisingly, researchers know little about the way noncognitive skills and cognitive intelligence work together to determine an individuals’ academic preparedness (Duckworth et al., 2007). Vygotsky (1978) discovered that many learning issues were the result of a mismatch between the dominant educational culture (i.e., what is measured on standardized tests) and the children’s natural abilities to learn (i.e., noncognitive skills). The implication here is that academically underprepared students may have a misalliance between their natural noncognitive talents and the public education system that values only cognitive abilities. Although cognitive abilities play a vital role in determining economic success and academic outcomes, noncognitive skills such as persistence, self-confidence, and motivation are equally important in the students’ academic preparedness process (Heckman, 2008; Boylan, 2009). Boylan (2009) indicated that when academic advisors expand cognitive assessment data with noncognitive information, the ability to focus interventions to help
students also increases. In studying the relationship between high IQ scores and noncognitive skills, Borghans, Meijers, and Weel (2008) discovered that behaviors like self-discipline and motivation were essential noncognitive factors positively affecting cognitive test scores. Another study focusing on persistence suggested that an individuals’ determination accounted for successful educational retention (Duckworth et al., 2007).

According to Heckman (2006), early interventions, such as enriched childcare centers coupled with home visitations, have been successful in alleviating some of the initial disadvantages of children born in adverse family environments. He claimed that the success of these interventions is not attributable to IQ improvements in children, but rather to their success in boosting noncognitive skills. Sociologists have written extensively about the role of noncognitive skills in predicting academic success, occupational attainment and wages; and several studies in the psychology literature have shown the relevant role of noncognitive skills in reference to the schooling performance of children and adolescents (Duckworth & Seligman, 2005; Heckman, 2006; Wolfe & Johnson, 1995). In essence, 21st century researchers using empirical data are beginning to demonstrate ways that noncognitive skills affect students’ academic preparedness.

**College Readiness.**

Dr. David Conley is a professor and Director of the Center for Educational Policy Research at the University of Oregon where he conducts research on issues related to college readiness. His definition of college readiness was adopted for this research study. Conley (2008) and Conley (2011) described college readiness 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 that offers a baccalaureate degree or transfer to a baccalaureate program. Conley’s *Redefining College Readiness* (2007) referred to college readiness as a multi-faceted concept comprising numerous variables that include factors both internal and external to the school environment. The college-ready student envisioned by Conley’s definition, is able to understand what is expected in a college course, can cope with the content knowledge that is presented, and can take away the key intellectual lessons and dispositions the course was designed to convey and develop. Conley introduced a model that offered a more comprehensive look at what it means to be college-ready, where the student has both the mindset and disposition necessary to enable post-secondary success. Conley’s model is comprised of four interconnected facets of College Readiness: 1) key cognitive strategies, (2) key content knowledge, (3) academic behaviors, and (4) contextual skills. All facets must be identified and eventually measured if more students are to be made college-ready (Conley, 2007).

**Key cognitive strategies.** The first facet is a set of patterns of intellectual behavior (i.e., intellectual openness, inquisitiveness, analysis, reasoning, interpretation, precision and accuracy, and problem solving) leading to the development of cognitive strategies and capabilities necessary for college-level work (Conley, 2007).

**Key content knowledge.** The second facet is the understanding and mastering of key content knowledge. This can be achieved through the exercise of broader cognitive skills exemplified within the previous key cognitive strategies above. The core academic subjects identified as content knowledge are: English, Mathematics, Social Studies, Science, World Languages, and the Arts (Conley, 2007).
**Academic behavior.** The third facet of college readiness encompassed a range of academic behaviors that reflected the influence of noncognitive skills on students such as self-awareness, self-monitoring, and self-control necessary for academic success (Conley, 2007). Typical academic behaviors included time management, preparing for and taking examinations, using information resources, taking class notes, and communicating with teachers and advisors (Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004).

**Contextual skills and awareness.** Conley’s (2007) fourth facet consists of contextual factors primarily including the information necessary to understand how college operates as a system and culture (i.e., how to apply to college, gain necessary financial aid, and then, subsequent to matriculation, understand how college operates as a new context). The lack of understanding of the college context causes many students to become alienated, frustrated, and even humiliated during the freshman year and decide that college is not the place for them (Conley, 2007). According to Conley, examples of key context skills and awareness include a systemic understanding of the postsecondary educational system combined with specific knowledge of the norms, values, and conventions of interactions in the college context, and the human relations skills necessary to cope within this system even if it is very different from the community the student has just left. To facilitate students’ transition, it is important for them to master interpersonal and social skills (i.e., communication skills, adaptability, emotional security, empathy, gratefulness, and respectful).

**Conceptual Framework Components**

Much of the work and research findings about noncognitive skills focus on college freshmen students, making those findings less meaningful for, or applicable to, the high
school student population at the center of this project. The studies of Conley (2007), Conley (2008), and Molnar (2012) were taken into account; as a result, five categories of noncognitive skills were selected and amended to develop a conceptual research framework in better alignment with high school learning environments. The criteria for developing these categories was based on the identification of the most recurring set of behaviors (noncognitive skills) needed in high school graduates and freshman students.

Creswell (2007) recommends starting the investigation by using a central research question in the broadest way possible. In line with his recommendation, the five noncognitive categories adopted in the framework supported the central question: What are the students’ and educators’ perceptions about the relevance and impact of noncognitive learning skills in high socioeconomic high school students’ academic performance when determining their college readiness? The goal of this research study was to create a theory-driven framework which enabled the development of critical questions regarding noncognitive skills in reference to current academic performance measurements of cognitive factors in order to determine the influence of noncognitive skills on high school students’ college readiness. This research question generated data to shed light on the influence of noncognitive skills in reference to students’ college readiness. Ultimately, these perceptions were connected to the theoretical framework for data analysis.

The five noncognitive skill categories that guided the conceptual framework of this research study were: (1) Noncognitive Skills: Self-Regulation, (2) Noncognitive Skills: Self-efficacy, (3) Noncognitive Skills: Self-monitoring, (4) Noncognitive Skills: Interpersonal and Social Skills, and (5) Noncognitive Skills: Academic Behaviors.
Appendix A provided a graphic representation of the conceptual framework briefly introduced in chapter one. In the figure, the five noncognitive skill categories were presented in the left column of the theoretical framework and the noncognitive skills categorized by attitudes, behaviors and strategies were displayed in the right column.

**Noncognitive Skills: Self-regulation.** Self-regulated learners are generally characterized as active learners who efficiently manage their own learning experiences in many different ways (Schunk & Zimmerman, 1994). These students have a broad number of cognitive and metacognitive strategies (i.e., they are independent in organizing, observing and rehearsing information, they have resilience, are capable of self-evaluation, and have effective learning strategies) to accomplish academic tasks. They have adaptive learning goals and are persistent in their efforts to reach those goals. Self-regulated learners are generally characterized as highly motivated students because they more readily engage in, provide effort for, and persist longer at learning tasks than students who do not self-regulate (Zimmerman, 1989; Zimmerman & Martinez-Pons, 1986).

According to Zimmerman & Martinez-Pons (1986), self-regulated learning strategies are actions and processes directed at acquiring information or skills that involve agency, purpose, and individual perceptions by learners. Additionally Zimmerman (1989) stated that social cognitive theorists assumed that self-regulation involved three classes of sub-processes: self-observation, self-judgment, and self-reaction. He concluded that in accordance with social cognitive theory, the major types of personal, behavioral, and environmental influence are assumed to be interdependent; these performance-related sub-processes are assumed to interact with each other in a reciprocal fashion. For instance, listening to an audiotape of one's speech (self-observation) is assumed to affect self-
judgments of progress in acquiring rhetorical skill. These self-judgments in turn are expected to determine one's subsequent willingness to continue, or not continue, this self-instructive practice (Zimmerman, 1989).

According to social cognitive theory, human learning remains highly dependent on the social environmental context from which it sprang (Mischel & Peake, 1982; Zimmerman, 1983). On the basis of these social learning assumptions and constructs, Zimmerman (1989) offered an initial view of students’ self-regulated learning. Among the three major types of influence, self-efficacy is considered a key influence. In addition, two major classes of environmental influence are generalized from social cognitive research and theory: the physical context and the social experience (Zimmerman, 1983). Social cognitive theorists have devoted particular attention to the impact of social and enactive experience on human functioning. The type of environmental influence on student self-regulated learning is the structure of the learning context, particularly such elements as the academic task and setting (Zimmerman, 1989).

**Noncognitive Skills: Self-efficacy.** To qualify specifically as self-regulated students, Wolters (1998) claims that students’ learning must involve the use of specified strategies to achieve academic goals on the basis of self-efficacy perceptions. Self-efficacy is defined as an individual’s perceived capability to perform necessary tasks to achieve goals, and it is characterized by a student’s degree of confidence in performing various college related tasks to produce a desired outcome such as passing an examination (Bandura, 1997; Pajares & Schunk, 2001). In addition, students with high self-efficacy approach difficult tasks as challenges to be triumphed over, rather than as threats to be avoided (Pajares & Schunk, 2001). Students with strong self-efficacy
willingly engage in challenging tasks, invest greater effort and persistence, and show superior academic performance than those who lack such confidence (Bandura & Schunk, 1981; Pajares & Miller, 1995; Schunk, 1991; Zimmerman & Martinez-Pons, 1986).

Self-efficacy has been found to influence students’ academic achievement and thus is relevant to postsecondary academic success (Choi, 2005; Pajares & Schunk, 2001). Self-efficacy influences how much effort is put into performing a task and persevering on the task, thereby affecting the level of achievement. Ample research indicates that developing and fostering a sense of academic self-efficacy may influence students’ GPAs and hence may increase persistence rates (Bong, 2001; Pajares & Schunk, 2001; Zimmerman, 2000; Pattengale & Schreiner, 2000). College students are required to establish a new standard of competence in intellectual, manual, and interpersonal skills that surpass those adequate for high school. Additionally, high school graduates are expected to be self-reliant and not depend on the support or approval of parents and family (Pattengale & Schreiner, 2000). How successful these students are as they establish a new sense of competency and attain a healthy interdependence within the campus community is greatly influenced by the development of adaptability and a sense of belonging to their new environments (Lemons & Richmond, 1987). Furthermore, developing purpose is an important component in the achievement of self-efficacy skills; it involves the search for direction and commitment, where it encompasses not only vocational choice, but also life goals, lifestyle choices, and recreational interests (Lemons & Richmond, 1987).
In summary, social cognitive theorists assumed that self-efficacy is a key variable affecting self-regulated learning (Bandura, 1986; Rosenthal & Bandura, 1978; Schunk, 1986; Zimmerman, 1986). In support of this assumption, students' self-efficacy perceptions have been found to be related to two key aspects of the proposed reciprocal feedback loop: students' use of learning strategies and self-monitoring (Bandura, 1986). The relevance for students to achieve self-efficacy strategies is the interdependence with self-monitoring skills in order to master metacognitive skills and be able to identify their academic weaknesses and strengths.

**Noncognitive Skills: Self-monitoring.** Self-monitoring is defined as an ability to regulate behavior to accommodate different social situations. People who closely monitor themselves are categorized as high self-monitors and often behave in a manner that is highly responsive to social cues and situational context. Conversely, low self-monitors do not participate, to the same degree, in expressive control and do not share similar concerns for situational appropriateness. Low self-monitors are often less observant of social context and consider expressing a self-presentation dissimilar from their internal states as a falsehood and undesirable (Snyder & Gangestad 2000).

Self-monitoring is a form of metacognition, the ability to think about one’s thinking. Examples of metacognitive skills include: awareness of one’s current level of mastery and understanding of a subject, including key misunderstandings and blind spots; the ability to reflect on what worked and what needed improvement in any particular academic task; the tendency to persevere when presented with a novel, difficult, or ambiguous task; the tendency to identify and systematically select among, and employ, a
range of learning strategies; and the capability to transfer learning and strategies from familiar settings and situations to new ones (Bransford, Brown, & Cocking, 2000).

People who are unwilling to self-monitor and adjust their behavior accordingly are often aggressive, uncompromising, and insistent with others. This may make them prone to condemnation, rejection, and consequent feelings of anger, anxiety, guilt, low self-concept, isolation, and depression. Even the occasional indiscretion can make social situations very awkward, and could result in the loss of a friend, co-worker, client, or even job. Students who are willing to adjust their behavior will often find that others are more receptive, pleasant, and benevolent towards them (Snyder & Gangestad 2000). Students who are highly responsive to social cues and situational context will be able to adapt and be more responsive to academic challenges.

**Noncognitive Skills: Interpersonal and Social Skills.** Dixon, Belnap, Albrecht, and Lee (2010) identified the following noncognitive skills (a combination of interpersonal and social skills) as important components to improve individual’s skills: (1) teamwork, (2) problem solving, (3) decision making, (4) communication skills, and (5) working under pressure. In a study conducted of over 300 companies by the Institute of Labor Studies, potential employers were asked what they believed to be the most important noncognitive skills of tomorrow. The results of the study indicated that 64% of potential employers valued teamwork, 54% emphasized problem solving skills, 36% valued decision-making capabilities, and 35% stressed communication skills.

According to Maxwell (2002), the first and most important quality of teamwork is adaptability. Individuals who have the ability to adapt are also continually learning, are emotionally secure, creative, and service minded. Maxwell stated that when members of a
team have the ability to adapt, a foundation is created that prepares them for future success. The inability to adapt to ambiguity typically results in failure and lack of engagement among team members. The second quality of teamwork is problem solving, where problem solvers are considered purpose-driven and future-minded individuals. Most individuals endure difficult problems because they understand that what they are doing is making a difference, and the result is worth the struggle. The third skill is decision making, a cognitive process in which individuals compare alternatives and attempt to select the most desired outcome leading to a course of action that results in a final choice. The fourth skill is communication; communication is the process of transmitting information about ideas, attitudes, emotion, or objective behaviors. An effective communicator can coordinate and deliver information in a timely matter. After the message has been communicated, the individual verifies the information to ensure that the receiver has understood the desired message. Finally, Maxwell’s fifth skill is the ability to work under pressure; here students are expected to develop skills that will enable them to balance multiple projects and effectively manage their time so that last minute stress can be eliminated. Working under pressure involves the ability to think clearly and operate effectively. Maxwell (2002) stated that students should take the time to prepare for future work-related stress and create the right balance and prioritize appropriately to reduce pressure.

**Noncognitive Skills: Academic Behaviors.** This is one of the five noncognitive categories outlining the study framework. Here students must develop sets of academic behaviors commonly characterized by skills, attitudes, and strategies that are crucial to academic performance in their classes, but that may not be reflected in their scores on cognitive tests (Conley, 2007; Farrington et al., 2012; Robbins et al., 2004). These
behaviors include regularly attending class, arriving ready to work (with necessary supplies and materials), paying attention, participating in instructional activities and class discussions, and devoting out-of-school time to studying and completing homework. Because they are observable behaviors, they are also relatively easy to describe, monitor, and measure. Typical study skill behaviors include time management, preparing for and taking examinations, using information resources, taking class notes, and communicating with teachers and advisors (Robbins et al., 2004).

**Significance of Intelligence Theories**

The notion of intelligence is not a well-defined concept; there are contradictory points of view (Gottfredson & Saklofske, 2009; Noruzi & Rahimi, 2010). According to Noruzi and Rahimi (2010), intelligence is an abstract concept with the psychometric view of the general intelligence factor (g-factor) as the traditional view. However, sciences such as neurobiology, psychology, and behavioral genetics have established that intelligence may involve the interacting factors of environment and heredity (Gottfredson & Saklofske, 2009). Although firmer definitions are developing, Shavinina (2008) noted the current development of intelligence theory is still not sufficient to understand human intelligence fully. The process of helping high school students improve academic achievement and become college ready may involve understanding the effects of noncognitive factors, which may also provide a broader view of what constitutes intelligence (Sternberg, 2007).

**Historical Significance of Cognitive Skills and Assessments**

Recognition of the importance of various noncognitive predictors such as personality and background experience has increased. During the 21st century, researchers
began finding ways to incorporate noncognitive skills assessments with cognitive skills assessments of underprepared college students. To measure noncognitive skills, researchers are incorporating self-report questionnaires into SAT assessments. Schmitt, Keeney, Oswald, Pleskac, Billington, Sinha, and Zorzie (2009), conducted a study in which self-report questionnaires (i.e., biodata measures and situational judgment tests) were used to measure an individual’s current levels of understanding or misunderstanding to augment the SAT assessment. Biodata measures an assessed student’s background, interests, hobbies, and typical behaviors in a wide variety of academic and life situations.

The situational judgment test asked students to judge which behavioral option they would select in a series of hypothetical performance-related academic and social situations that they are likely to experience in a collegiate environment. Similarly, Sternberg (2010) conducted studies known as the Rainbow and Kaleidoscope on which self-report questionnaires were used to augment the SAT predictions of students’ college performance. The Rainbow Project supports the validity of the theory of successful intelligence (where cognitive tests are inadequate because individuals have fixed rather than flexible abilities) and suggests its potential use in college admissions as an enhancement to the SAT. Boylan (2009), also incorporated noncognitive (i.e., affective and personal) factors with cognitive factors to develop targeting interventions and found that participating students improved their academic performance during intervention.

**G-factor intelligence.** The g-factor (general factor) intelligence theory originates from the heredity notion of a natural transfer of intelligence (Guvercin & Arda, 2008), which later developed into a theory of measurable fixed intelligence (Piovani, 2008). The general factor explains most differences among individuals in performance on diverse
Within academic psychology, Spearman’s theory of general intelligence (or ‘g’) remains the predominant conception of intelligence (Brody, 2004; Deary et al., 2007; Jensen, 2008).

**Fixed intelligence.** The concept of fixed intelligence became part of the Army Alpha test, the first standardized test given at a national level, beginning in 1917 (Jackson, 2007). The concept of fixed intelligence coincides with the concept of a fixed number of neurons within the brain as not growing; this was the general opinion held by most scientists into the 1960s (Lombardi, 2008). Since then, empirical evidence has shown that new neurons can develop and neurobiological modifications can occur within the brain (Garland & Howard, 2009; Von Bohlen Und Halbach, 2007). Atkinson and Geiser (2009) reported that the SAT is based on the assumption that an individual’s intelligence is genetically inherent and unchanging over a lifetime. More recently in the 21st century, chemical brain imaging and magnetic resonance spectroscopy imaging and experiments with rats that examined gene-environment influence indicated that the environment can play a vital role in brain and memory development (Dawson, 2008).

**Historical Significance of Noncognitive Skills and Assessments**

**Successful intelligence.** According to Sternberg (2008), successful intelligence theory has a framework that suggests cognitive tests of analytical skills are inadequate because of the assumption that these individuals have fixed rather than flexible abilities. Successful intelligence theory incorporates a set of abilities (i.e., analytical, creative, and practical) in which the individual has the flexibility to adjust to social cultural experiences (Sternberg, 2008). Individuals growing up within challenging environments may develop creative skills (i.e., generating ideas) as well as practical skills (i.e., implementing ideas) in
an attempt to survive in their environment (Sternberg, 2008). Research evidence showed the students who test at high-levels for creative and practical skills can achieve at higher academic levels when taught in a manner that matches their skills (Sternberg, 2009).

**Multiple intelligences.** Gardner (2006) proposed a multiple intelligence theory that suggests a brain-body function in which the reorganization of skills and physical structure of the brain are constantly evolving through social influences. The theory of multiple intelligences indicates that individuals have many autonomous capabilities of cognition (i.e., linguistic intelligence, logical-mathematical intelligence, spatial intelligence, musical intelligence, bodily-kinesthetic intelligence, naturalistic intelligence, interpersonal intelligence, and intrapersonal intelligence), which are each separate forms of intelligence (Gardner, 2007). A basic premise in the theory of multiple intelligences is that measuring intelligence with an IQ test or the SAT does not give a complete view of an individual’s existing abilities (Gardner, 2006).

Gottfredson and Saklofske (2009) reported that the Gardner and Sternberg models of intelligence have not become part of any large-scale testing in education in spite of the general acceptance of their theories. The hope that cognitive testing can assess every student’s academic preparedness level has not become a reality, even though many situations require other skills for the challenges of life (Westby, 2007).

**Vygotsky’s developmental law.** Developmental law asserts that the social interaction is the origin of higher mental processes (Vygotsky, 1978). According to Vygotsky, the individual’s intellectual development has a social formation through social-cultural interactions (i.e., language & social norms) for the development of higher mental functions. The relationship between learning and development results from
imitating a more knowledgeable adult or peer, and from this the child develops behavioral control (i.e., self-regulation) and learns to plan (i.e., a metacognitive skill).

**Giving Voice to Students and Educators**

Listening to our front-line constituents to better understand what needs to be done to improve our education systems is important. Key stakeholders’ perspectives can include giving voice to stakeholders’ stories, providing authentic understandings that result from a discourse about an individuals’ predicament (Greenfield & Jensen, 2010; Silberman, 2012). Giving voice to our main constituents—students—to express their viewpoints (Adams, 2009) about the impact that noncognitive skills might have on their preparation to successfully transition to a post-secondary education is the main purpose of this research study. Students’ and educator’s perceptions generated relevant data that lead to a better understanding of high school students’ perceptions about their college readiness. Test scores can reveal when students are not learning; however they cannot reveal why they are not learning. Students had the opportunity to express their viewpoints about current practices and assessments measuring their current academic preparedness. Similarly, teachers were able to communicate their perspectives in regards to current support systems that facilitate their professional practices while preparing high school students to successfully transition to a post-secondary system. Students and educators have important stories to tell. The study enabled them to express their individual understandings regarding the ways noncognitive factors influence students’ college readiness. Therefore, with the use of protocols, observations, and interviews, valuable information was retrieved and analyzed to better understand the phenomenon under study.
Literature Gaps

Researchers examined specific noncognitive factors relative to standardized testing (Sternberg, 2008) as well as affective factors and personal factors relative to cognitive assessments (Boylan, 2009). However, no research addresses the triangulation of noncognitive skills with current academic practices and assessments to better understand the high school students’ needs in their preparation to be considered college ready students. In addition, research studies addressed the effect of noncognitive skills in K-12 systems (particularly in secondary educational contexts) in reference to college readiness and successful preparation for the transition to a post-secondary educational context. However, limited information about the importance of incorporating noncognitive skills and assessments to measure academic performance in high school environments was noted; the majority of previous research data targeted freshman college students. Lastly, no research was found that accessed the voices of high school students and educators to better understand the phenomenon of college readiness in reference to current practices.

Summary

This literature review focused on issues primary to why noncognitive skills are not included in academic developmental assessment within our high school systems. The review concluded that the United States public education policy focuses only on cognitive testing that underrates students’ noncognitive abilities by focusing primarily on cognitive learning strategies as the only measure to determine college readiness (Apple, 2000; Finn, 1990; Hanushek & Raymond, 2005; Heckman, 2008; Gardner, 2006; Marzano et al., 1993; Ravitch & Viteritti, 1997). However, noncognitive skills were considered to be as important as or even more important than cognitive skills in determining academic and
employment outcomes (Borghans, Meijers, & Weel, 2008; Boylan, 2009; Callan, Finney, Kirst, Usdan, & Venezia, 2006; Conley, 2003; Conley, 2007; Duckworth et al., 2007; Duckworth & Seligman, 2005; Farrington et al., 2012; Farkas, 2003; Heckman, 2008; Paris & Winograd, 1990; VanLehn, 1996; Venezia & Jaeger, 2013; Wolfe & Johnson, 1995).

The uses of assessments to triangulate affective factors with cognitive and personal factors for targeted interventions proved to improve academic development of students (Boylan, 2009; Schmitt et al., 2009; Sternberg, 2010). Common Core State Standards offer the possibility to improve college and career readiness and must be supplemented with the necessary professional development to develop strong noncognitive foundations that will help students to meet academic college readiness standards (Venezia & Jaeger, 2013; Gottfredson and Saklofske, 2009).

The current assessment methods used to determine academic achievement and measure school’s accountability do not capture the full spectrum of intellectual and personal skills students will need for postsecondary success. High school students are taught to achieve higher grades and test scores without necessarily understanding the key knowledge, skills, behaviors, attributes, and attitudes they need to succeed in postsecondary programs. Students arrive at college and career-training programs poorly equipped in a number of areas, including key content, cognitive strategies, and self-management skills that are critical to success in these programs (Conley, 2007).

The study focused on the less measurable, but equally important, noncognitive skills in reference to current cognitive skills and academic practices, in order to shed light on the impact that noncognitive skills may have on students’ learning outcomes. The study provided relevant information to K-12 educators and administrators to assess, modify, and
improve their current practices and support systems to accommodate to the students’ needs and college aspirations with a more aligned curriculum that will facilitate a seamless transition to a postsecondary academic environment. Chapter III presents the research methodology for the study.
Chapter III: Methodology

Introduction

Noncognitive skills are a set of abilities, attitudes, and behaviors affecting the academic achievement of students; they are less measurable but equally valuable, and in many cases never addressed when preparing students to successfully transition to college (Molnar, 2012). Noncognitive skills can be as fundamental to success as cognitive skills (Borghans, Meijers, & Weel, 2008; Boylan, 2009; Callan, Finney, Kirst, Usdan, & Venezia, 2006; Conley, 2003; Conley, 2007; Duckworth et al., 2007; Duckworth & Seligman, 2005; Farrington et al., 2012; Farkas, 2003; Heckman, 2008; Paris & Winograd, 1990; VanLehn, 1996; Venezia & Jaeger, 2013; Weel, 2008; Wolfe & Johnson, 1995). Academic support systems to help high school students improve college preparation are often neglected. Additionally, the K-12 and post-secondary educational systems fail to provide clear and accurate signals about the knowledge and skills students must acquire for a seamless transition from one system to the other (Cohen, 2008; Conley, 2003). The disconnection between the systems regarding academic expectations is one of the main causes of the lack of college readiness in many high school graduates (Conley, 2007). A high percentage of students need remediation after high school to be ready for college level courses (California Department of Education, 2012; Conley 2007; Porter & Polikoff, 2011). What is often missing is the development of noncognitive skills even if the content knowledge is present.

Research purpose. The study explored the perceptions of high school students and educators concerning the significance and influence of noncognitive skills on student learning and attempted to provide empirical information regarding the impact.
noncognitive skills have when combined with cognitive skills on high school students’ successful transition to a post-secondary educational system.

**Research questions.** To better understand students’ and educators’ perceptions about college readiness in relationship to the impact noncognitive skills have on students’ preparation, the research questions that guided this study were:

Main research question:

What are the students’ and educators’ perceptions about the relevance and impact of noncognitive learning skills on high socioeconomic high school students’ academic performance when determining their college readiness?

Sub questions:

a) What are educators’ perceptions and understanding about the relevance of noncognitive learning skills as they prepare students to successfully transition to a higher education system?

b) What are the students’ perceptions about the importance of noncognitive learning skills on their preparation to transition successfully to a higher education system?

**Chapter organization.** Chapter three includes: (1) Introduction, (2) Research Design, (3) Research Setting and Context, (4) Research Sample and Data Sources, (5) Instruments and Procedures, (6) Data Collection, (7) Data Analysis, and (8) the Role of the Researcher.
**Research Design**

**Research theory.** Social interpretivism provided the theoretical framework guiding the research study. The basic tenet of social interpretivism is that reality is socially, culturally, and historically constructed (Bloomberg and Volpe, 2012). The phenomenon under study was socially constructed, and its variables were complex and difficult to measure. In the interpretivism paradigm, inquiry is viewed as value-bound rather than value-free. The inquiry process is influenced by both the researcher and the context under study (Bloomberg and Volpe, 2012, p.28). With this research approach, the researcher is viewed as an important instrument in the process of data collection. The researcher used personal involvement with a naturalistic and inductive approach with research participants in a search for patterns and heterogeneity (Glense, 2011). Due to the researcher’s close interaction with study participants, the researcher was well aware of her personal biases, in order to identify the positive and negative implications they may bring to the study. The role of the interpretivist researcher was essentially that of “a passionate participant,” where she recognized and acknowledged that one’s own background, culture, social, and historical experiences can shape the interpretation of data and results (Glense, 2011, p.29).

**Research tradition.** Using interpretivism as its theoretical approach, the study employed the qualitative tradition of grounded theory. Grounded theory aims to develop theory supported by data collected directly from the field and participants to generate or discover a theory of a process, action, or an interaction founded in the view of the research participants (Bloomberg & Volpe, 2012). These research methods include interacting with people in their social contexts and talking with them about their
perceptions. Using the lens of interpretivism, the study focused on in-depth interactions with people relevant to the study at the research site (Glense, 2011). The study was based on data collection and analysis, continuous data sampling, coding, categorizing, and comparison of data for analysis. Grounded theory draws on qualitative inquiries, staying open to data while aiming to produce theory and arguments logically and systematically (Greckhamer & Koro-Ljungberg, 2005). The study was conducted in the researcher’s public school site, and the data collected was substantiated by the views of the research’s participants, processes, and actions. The researcher was able to interact with the participants in their own context, and collected, analyzed, and interpreted data to let theory evolve (Bloomberg & Volpe, 2011), while developing new theory grounded in the perceptions of, and direct interactions with, participants. At the same time, the researcher was able to incorporate categories into a theoretical framework to specify causes, conditions, and consequences of the study (Bloomberg & Volpe, 2011).

**Connection to purpose and questions.** In order to answer the research questions, student, teacher, and counselor participation was necessary to capture their varied perceptions regarding the significance of noncognitive skills. The criterion in selecting the research sample was purposeful, and the participants’ identities remained anonymous in order to protect their privacy rights. In order to generate sufficient and relevant data to inform educators and administrators about the impact of noncognitive skills in students’ learning, and to explore current efforts in equalizing school resources and support systems to improve the students’ preparation for college, relevant background information to describe the site, as well as demographics, was provided in the upcoming section.
Research Setting and Context

Research setting. The research study was conducted in a public high school located in a small school district within Los Angeles County. The community’s population is primarily professional and business people. Many residents have been attracted to this city because of their high regard for the school district’s educational program. Because of strong cultural, artistic, and educational backgrounds, parents expect outstanding instructional programs as well as excellent college preparation for their children. This well-to-do socioeconomic community has strong academic expectations and assumes that most students will attend the university directly out of high school. However, not every student is able to successfully fulfill that broad expectation. The challenge for college readiness is not only for students at risk, but is prevalent among academically prepared students who graduate.

To protect the confidentiality of the research subjects, the pseudonym of Norman Dee High School (NDHS) was used to refer to the research site. The original school buildings were constructed in the late 1920’s and in the following five decades, a Swim-Gym, an addition to the north wing of the main building, a five-story building with classrooms, and a two-level parking garage were completed. The campus also includes a science and technology building. In Norman Dee High School, students are assigned to a team of staff members; each team is referred to as a “house.” The school has three houses providing services to its approximate 1,975 students, who are equally distributed among the houses, and each house includes a designated group of counselors and one assistant principal. In previous years, a counselor for the college and career department was on site, but currently the NDHS doesn’t have a college and career counselor.
The district is comprised of four K-8 schools, one comprehensive high school (Norman Dee), and one continuation high school. According to the NDHS’s website, during the 2011-12 school year Norman Dee High School served 1,975 students in grades nine to twelve (449 students in grade nine; 480 in grade ten; 536 in grade eleven; and 510 seniors). Student enrollment included 11% receiving special education services, 8% qualifying for English Learner support, and 7.5% enrolled in the free or reduced-price meal program. The distribution of the student’s ethnicity has remained a constant; Caucasian representing a 72%, Hispanic or Latino(a) 6%, Hawaiian or Pacific Islander 0.3%, Filipino 1.5%, Asian 14%, American Indian or Alaskan Native 0.2%, African American 5.5%, and Two or More Races representing 0.2%. Adequate Yearly Progress (AYP) results reported a 96% graduation rate and met and exceeded the 2012 AYP performance criteria (Norman Dee High School, 2013).

**Site selection.** The sampling strategy to select the setting was a combination of maximum variation and theory-based sampling (Miles & Huberman, 1994). Using a maximum variation strategy in combination with the theoretical based sample strategy allowed the researcher to identify diverse variations and patterns of participants and to find examples of a theoretical construct to apply theory to the case. It also examined individuals who contributed to an evolving theory while addressing the phenomena of college readiness (Miles & Huberman, 1994; Bloomberg & Volpe, 2012).

**Researcher roles.** During the study, the researcher played several roles: educator, colleague, and doctoral student conducting research at her own school site. The accessibility to the site allowed her to have a direct communication with the school Principal (a gatekeeper) and potential participants. Also having access to adult
participants’ e-mail addresses was of great benefit to establish effective communications with them. This proximity facilitated the organization and completion of protocol packages in order to comply with Institutional Review Board (IRB) requirements.

The researcher’s relationship with students and staff was merely professional, and the only purpose of her interactions with research participants during data collection was to search for answers that informed the research study questions. The students participating in the research study were not enrolled in any of the researcher’s classes at Norman Dee High School. The way the researcher managed her many roles as a researcher, educator, and colleague determined the quality of the data collected. The researcher organized her many roles accordingly and performed the role of the researcher as objectively as possible. During data collection, she tried to establish an open dialogue and trusting relationships with students and colleagues to minimize her influence on their answers to her questions.

**Sampling strategies.** Theoretical sampling selects cases, people, events, activities through evolving theoretical constructs in one’s research (Glesne, 2011). Theoretical sampling allowed the researcher to examine individuals who can contribute to the evolving theory that will inform the study (Bloomberg & Volpe, 2012). With this strategy the sampling begins purposefully, and, as the theoretical framework emerges, the researcher is able to analyze data and decide from whom to collect more data if necessary. The sampling was an evolving process guided by emerging theory (Bloomberg & Volpe, 2012). The researcher purposively selected a total of twenty one research participants to be part of the research study.
The anticipated student sample was a total of twelve senior students, six females and six males respectively; only six females and five males agreed to participate. Maximum variation sampling selects cases that cut across some range of variation and searches for common pattern across great variation (Glesne 2011). The criteria selection for students was based on the strategy of maximum variation; it provided a diverse representation of sample participants and fully displayed their multiple perspectives to identify patterns (Miles & Huberman, 1994) as they represented the widest range of characteristics. This maximum variation in academic achievement facilitated the process of data analysis to identify patterns or behaviors of high and low performing students in relation to the noncognitive skills under study. The sample group of teachers was a total of six and the selection criteria was as follows: two female and two male teachers with 0-10 years of teaching experience; one female and one male teacher with 11-25 years of teaching experience. The sample group for counselors was comprised of a total of four and no specific criterion was used in the selection process of counselors.

In an attempt to initiate the sampling process, the researcher previously contacted the school Principal. She explicated the topic of her study, and expressed her interest in conducting research in her own workplace. In that conversation, the Principal was informed of the previous informal conversation between the researcher and the district’s Superintendent regarding this research study. The Principal of Norman Dee High School (in his role as the gatekeeper, the person providing full site access for researcher) verbally agreed to give the researcher access to perform the study. At the same time, the researcher informed the Principal about the formality of the application process in order
to comply with the Institutional Review Board (IRB) prior to any action or interactions with human participants.

**Research Sample and Data Sources**

In order to identify the students’ and educators’ perceptions regarding the significance of noncognitive skills when determining college readiness, data was collected from senior students, teachers, and counselors. The data collected from these sources was obtained primarily through interviews, allowing the researcher to develop protocols based on the five main categories of the conceptual framework, and by field observations. All questionnaires were implemented in order to document participants’ perceptions about the significance of noncognitive learning skills in preparation for a higher education system, and to identify current programs preparing students for a successful college transition. Interviews were implemented first, followed by field observations with students and counselors, so that the researcher was able to document participants’ interactions and behaviors in their own context, while observing their actions and interactions related to college readiness. Per Rallis & Rossman (2003), sometimes observations can lead the interviews, and suggest unanticipated questions that might lead to topics not previously considered in the protocol questionnaires.

**Ethical issues.** In addressing the human subjects protection the researcher complied with all the required steps of the Institutional Review Board (IRB) and obtained approval. The researcher provided the required human subjects protocol approval forms and project information to IRB. Since the data sampling included adolescents and adults, the researcher provided the adult informed consent form (Appendix D), the adolescent assent form, and the parent or guardian consent form (Appendix E).
Additionally, the researcher provided recruitment material samples such as e-mails, flyer samples to be displayed in hallways, classrooms and public areas, and letters of invitation for both adult participants and adolescent participants (Appendix B & C). For data collection instruments, the researcher provided samples of the two questionnaires used in the study, one for adults (Appendix F) and another for senior students (Appendix G). She also provided a copy of her curriculum vitae. Upon approval of the IRB application package, the researcher started the recruitment of potential participants by using the school’s weekly bulletin, e-mails, and flyers posted in visible areas throughout the school.

In addressing ethical issues during data collection, data analysis and interpretation, and dissemination of research finding related to the research participants, the researcher’s main focus was on protecting participants’ rights and confidentiality. In general, she protected them from any harm during the research study. The researcher informed participants about the constant efforts she made to address these ethical issues. Credibility was also addressed as an important component to ensure an accurate representation of research participants’ voice (Bloomberg & Volpe, 2012).

**Data Collection Instruments**

Interviews were the primary technique used for data collection and were supplemented with field observations (Rallis & Rossman, 2012). In the research study, the researcher used the ebb and flow technique (a mixed technique, where one technique is complemented by the other) to collect research data from educators’ and senior students’ perceptions regarding the significance of noncognitive learning skills when determining college readiness. The development of all instruments were informed by the

**Interviews.** For interview protocols, the researcher used the interview guided approach, posing open-ended questions followed by requests for elaboration to unfold the participant’s perspectives on the phenomenon under study (Rallis & Rossman, 2012). As part of the interview protocols, the researcher prepared two packages containing the following information: Invitation to Participate, Consent to Act as a Human Participant for adults, and interview protocols respectively. To conduct interviews to educators and students, two different interview protocols were created.

The first instrument in the interview protocol was specifically designed for students; the interview questions were developed to shed direct light on the main research questions and were guided by the five categories of the conceptual framework. Interviewed students allowed the researcher to document their perceptions about the significance of noncognitive learning skills to prepare them to transition successfully to a higher education system. At the same time, the researcher identified students’ perceptions about current programs preparing them to transition to a higher education system. This instrument was included in Appendix G. Since the interview process was generative, it allowed the researcher to collect thick and detailed data (Glesne, 2011). On the other hand, as far as potential limitations with students, the researcher anticipated the need to invest a great deal of time clarifying terms for some participants.
The second interview protocol was used with teachers and counselors respectively. Implementation of these questions helped the researcher document educators’ perceptions about noncognitive skills in reference to students’ preparation to transition to a higher education system, and to identify what current dominant factors are important for preparing students to become college ready. This instrument can be found in Appendix F.

**Descriptive observation guide of counselors and senior students.** Since the study was grounded in data collected directly from participants, field observations was another technique to collect data. Observations were recorded using written field notes, commonly known as running records, of the researcher’s perceptions in the field. The researcher used these running records to capture as much detail as possible about the physical context, activities, and interactions between and among the observed participants. At the same time, she was able to comment on her running records by notating her own thoughts and impressions; running records include the researcher’s emotional reactions to events, analytic insights, questions about meaning, and the data about the research. Per Rallis & Rossman (2012), the running record is the data about the research; the observer’s comments are the data about the process and about the researcher. Observations were fundamental to the qualitative inquiry; they played an important role as the researcher noted body language in addition to the participant’s words (Rallis & Rossman, 2012).

**Data Collection Procedures**

Interviews were the primary technique used to collect data and were supplemented with field observations. For the interviews, researcher used the interview
guided approach (a conversation with a purpose) to unfold participants' point of views in hopes of generating rich and descriptive data, and learning more about their context. For the study, the researcher developed two different sets of interview protocols design, (1) one for teachers (see Appendix F) and (2) another for senior students (see Appendix G).

Observations helped the researcher document the interactions and behaviors of the participants in their own context, while discussing relevant information related to the process of college readiness. The main outcome of the observations was to better understand the research setting, and participants’ behaviors (Glense, 2011).

**Interviews.** The researcher conducted a series of 30-45 minute individual interviews with senior high school students, teachers, and counselors respectively. First, she started with the pre-interview session, in which she provided background information, explained the purpose of the interview, and provided the participant with the opportunity to sign the Consent to Participate in the Research (Appendix F for adults and Appendix G for students). At the same time, the researcher addressed the methods of confidentiality and ensured participants’ understanding of how the data was going to be collected during the interview (audio-recorded and via field notes) and informed participants how the collected data was going to be securely stored in a password protected laptop until completion of interview, data analysis, and research study. She informed the research participants about the possible risks and discomforts, potential benefits to subjects, participation and withdrawal, and their rights as research subjects.

Prior to the actual implementation of the protocol questions, the researcher allocated time to answer any questions regarding participants’ rights, details of this study, or any other concerns they might have. And during the interview, the researcher used the
interview guided approach, using semi-structured and open-ended questions followed by a request for elaboration to unfold the participant’s perspectives on the phenomenon under study.

The researcher conducted a total of twelve 30-45 minutes interviews of students. Taking into consideration the age of the adolescent participants, she provided scaffolding questions (Rubin & Rubin, 2005) to encourage conversation and to help the students stay on topic. Interviewing students allowed the researcher to document their perceptions and viewpoints about their current levels of noncognitive skills in reference to a successful college preparation.

The second series of 30-45 minute interviews were implemented with six teachers and four counselors respectively. With this sampling group, the researcher did not anticipate challenges in terms of establishing a “conversation with a purpose” (Burgess, 1984, p.102). The challenge was finding the time for the participants to be interviewed. To accommodate their full schedules, the researcher had to plan in advance in order to coordinate their schedules with hers. Implementation of these questions helped the researcher document educators’ perceptions about noncognitive learning skills to successfully prepare students to transition to a higher education system, and to identify current factors dominant in the preparation of students to transition to college.

Observations. Observations of counselors interacting with students helped the researcher to document the interactions and behaviors of the participants in their own contexts, while they discussed relevant information related to the process of college readiness. The researcher did a total of four observations of academic counselors and senior students for about 30-45 minutes each. These observations were implemented
during the senior students’ interactions with their academic counselors in anticipation of graduation and the college application period. As a participant observer, the researcher consciously observed the research settings, its participants, the events, acts, and gestures that occurred. She began to look for patterns and to abstract similarities and differences across individuals and events. While taking field notes, the researcher used both descriptive and analytical notes to record details, strived for accuracy, and avoided being judgmental (Glesne, 2011). During the same day of the observation (s), she performed a review of her field notes and reflected on collected data to include her personal reactions and comments about these observations which led the researcher to other interviews, suggesting unanticipated questions, and yielding topics not previously considered (Rallis & Rossman, 2012). Using observations as part of the data collection allowed the researcher to see patterns people did not see themselves, and identified patterns people did not want to talk about.

**Exiting the field.** Upon completion of each interview, researcher thanked participants and informed them about the possibility of contacting them to review the transcribed information, and, as necessary, she searched for clarification during the data analysis process.

**Data Analysis**

Data analysis involved organizing what the researcher observed, heard, and read in order to determine what she had learned from what her experiences and the data collected. The researcher worked with the data to describe, compare, and create explanations, by linking stories to other stories, and posing hypotheses and developing theories (Glense 2011). Per Rallis and Rossman (2012), the data analysis is an ongoing
and emergent understanding of what the researcher learns; it is a process that relies on inductive and deductive reasoning. The data analysis techniques were directly linked to the theoretical framework, research questions, and data collection methods of this study (Glense 2011).

**Data Analysis Procedures.** The theoretical orientation for this research study was interpretivist with a grounded theory methodology. Grounded theory is not a theory in itself, but a methodology, developing theory that is grounded in data (Glesne, 2011). As an interpretivist, the researcher observed, and asked questions of the participants to document their perceptions with a naturalistic approach. The researcher searched for patterns, tried to make meaning of events, actions, and perceptions and developed a descriptive narrative.

In grounded theory research, analysis of codes facilitates the process of determining patterns and themes to build theory (Glesne, 2011). Therefore, thematic analysis was the analytical technique used in the study. For the individual interviews, thematic analysis provided the researcher with the identification of themes, codes, and patterns moving collected data to a higher level of integration and synthesis and finding meaning beyond the specifics of the data (Rallis & Rossman, 2012).

By putting pieces that exemplify the same theoretical or descriptive idea together into data clumps, the researcher created a thematic organizational framework. She created codes to discern themes, patterns, processes, made comparisons, and built a framework of relational categories to find theoretical explanations (Glesne, 2011).

**Data Analysis Process.** The researcher did not have access to counselors, teachers and senior students over summer break (2013-2014). Therefore, the data
collection started at the beginning of the new school year (2014-2015). Interviews and observations were the methods used to collect data. During the implementation of the interviews, the researcher made field note memos to record and document thoughts as they occurred rather than at the end of the data collection process (Glesne, 2011). Strauss (1987) refers to this technique as a written version of an internal dialogue going on during the research. Upon completion of individual interviews, researcher analyzed the voice recorded interviews and became familiar with the collected information, and reflected once more in order to make the work more “rich, thorough, and complex” (Glesne, 2011, p. 189).

Upon completion of data collection, the researcher, with the use of the conceptual framework guiding the study, created an organizational scheme to categorize her findings (Rallis & Rossman, 2012). The researcher read, and reread to identify the emerging themes embodied in a segment of the data, concepts, or abstractions (Rallis & Rossman, 2012). Upon identification of categories, she started coding data to think through what she could take as evidence of a category or theme (Rallis & Rossman, 2012). A code is a “word or short phrase that captures and signals what is going on in a piece of data in a way that links it to some more general analysis issue” (Emerson, Fretz, & Shaw, 1995, p. 146). The generation of themes emerged as a result of the linkages, patterns, processes, and possible explanations might begin to appear within and across categories. In this case, the researcher did a thematic analysis that required a deep familiarity with the data that emerged from categorizing (Rallis & Rossman, 2012).

**Data Analysis Techniques.** Upon completion of each interview, the researcher transcribed the collected raw data verbatim. With the help of a digital voice recorder, she
transcribed all the interviews. To protect the identity and confidentiality of human subjects, she replaced participants’ names with three-digit identifiers. On each transcription the researcher redacted/removed any information that could identify a participant, the name of the site, teachers, or the principal and replace it with the word “[redacted]” in the transcripts. She organized the data to identify relevant quotations in a search for emergent categories or codes.

Glesne (2011) suggests that the researcher make a codebook shortly after data collection begins “so that it will reflect the emerging, evolving structure of the manuscript” (p. 197). The researcher used terms based on the actual language of the participants, in vivo marks or labels commonly used in grounded theory, allowing descriptors to emerge from the data. Patton (1990, 2001) makes reference to this process as inductive analysis.

Subsequently, the researcher assigned codes to the interviews that were analyzed using the ATLAS.ti computer program. Patton notes, “Interpretation means attaching significance to what was found, making sense of findings, offering explanations, drawing conclusions, extrapolating lessons, making inferences, considering meanings, and otherwise imposing order” (2001, p. 480). The researcher interpreted the data in search of thematic analysis (Rallis & Rossman, 2012) that moved the data to a higher level of integration and synthesis in order to find meaning beyond the specifics of the data. In order to understand the impact of noncognitive skills in students’ learning, the researcher confirmed her understanding of the data by asking the participants to verify her interpretations, making sure that the researcher’s story remained true to the participants’ answers (Rallis & Rossman, 2012). The researcher returned to the literature to determine
if relevant theories corresponded to her interpretations. Finally, in writing about collected qualitative data, the researcher’s interpretivist process provided the multiple meanings of events, objects, activities, experiences, and participants’ perceptions.

**Role of the Researcher**

This research study was conducted in the researcher’s own workplace, and she played several roles during the process. Her role as a doctoral candidate, researcher, coordinator of the business and robotics department, and colleague of many other educators and academic counselors, did not influence the way the data collection and data analysis processes were conducted. One of the advantages of conducting the research study at the researcher’s workplace was the easy access to the research site and research sampling participants. It facilitated the sample selection of students, teachers and counselors. This pre-established relationship did not influence in the way participants responded to the research questions, and, during data analysis, the way researcher might interpret the data.

**Researcher bias.** The researcher’s assumptions and biases about the lack of college readiness among high school students were solely based on her interactions with students during her concurrent practice as a business owner, secondary, and post-secondary educator. The perceptible lack of critical skills noticed during the researcher’s practice contributed to her bias in assuming that the great majority of high school students graduate without the necessary noncognitive skills upon graduation to sustain college demands.

The fact that the researcher is one of the site educators did not have a potential impact on the research subjects during the data collection process. The researcher was
concerned with the potential lack of quality and honest answers from sampling students during the interview process. Even though students had to answer questions from an educator from their own school, it did not inhibit or alter their answers. In conducting interviews with educators and counselors, the challenge was to obtain honest and open answers rather than embellished responses. During the observations with counselors and students, the researcher’s presence as an observer was not a disrupting factor in the way counselors would usually address themselves with students while providing college guidance and resources.

During data collection, the researcher observed the interactions of students and counselors with an objective researcher’s lens and not from the researcher’s perspective as a teacher or colleague, using that objectivity to collect thick data. For participants who acknowledged the presence of a third person (researcher) during observations, to lessen the impact, and while conducting observations, the researcher avoided any participation or comments in an effort to be less noticeable.

In the interviews, as a researcher and engaged participant in the interview process, the researcher created an ongoing dialogue with open ended questions and obtained answers directly generated by the participant. And finally, during the data analysis, the researcher organized and evaluated the collected data with objectivity and an emphasis on classifying (coding) relevant data that informed and answered the research questions. In order to add validity and reliability to the study, the researcher provided sufficient and significant evidence to provide credibility. This criterion referred to whether the participants’ perceptions matched up with the researcher’s portrayal of them (Bloomberg & Volpe, 2012).
The Researcher’s effects on the case. Since the researcher conducted the study in her own workplace, one of the advantages of being a relatively new employee at NDHS (less than a year) was that she did not have much social and institutional interaction with most of the current staff. This was a positive mechanism on her data collection, because it minimized the researcher’s preconceptions about the interviewees and participants.

During the interviews, she tried to create a less intrusive and more inclusive environment, especially with students who felt intimidated with some of the questions. During the data analysis, the researcher evaluated the data without making connections to any particular participant by only focusing on the collected data in order to inform the research questions and to develop theory based on grounded collected data.

Case effects on the researcher. One of the factors influencing the researcher’s skills was the variety of research subjects, as she had to develop a range of techniques and approaches while conducting the data collection. In an attempt to mitigate subject effects on the researcher, close attention to field relations was emphasized. The researcher removed her bias while conducting observations and during her interactions with participants (Glense, 2011). The researcher did not express her individual point of view or prompt a question that directed participants to a specific answer. Instead she used open ended questions to lead the interview to an open and evolving dialogue. Barbatis (2008) reported that a hallmark of using the qualitative method for analysis is the ability to explore real-world situations through open-ended questions, without predetermined constraints. Lastly, during data analysis the researcher examined and selected collected data in an objective and systematic way, to identify patterns and behaviors that will
inform and generate a theoretical framework grounded on collected data. Per Glense (2011), the strategy of reflexivity will help researcher to recognize her own biases, subjectivity, and perspectives.
Chapter IV: Research Findings

The purpose of this study was to explore the perception of students and educators regarding the importance of noncognitive skills for high socioeconomic high school students’ learning while preparing for a successful college transition. This chapter includes a discussion of study results and data analysis. The results and data analysis are presented using data collected from 21 participants (4 counselors, 6 teachers, and 11 students) to describe their individual perceptions about the relevance of noncognitive skills and their impact on students’ college readiness. Participants’ statements provide a substantial portion of the research findings presented in this chapter. The themes presented in Chapter IV are: college readiness, cognitive skills, the five main noncognitive skills categories (i.e., self-regulation, self-efficacy, self-monitoring, interpersonal and social skills, and academic behaviors), students’ current levels of college readiness, and emerging themes.

College Readiness

When participants were questioned about their understanding of college readiness, the counselors’ understanding of college readiness was related to a strong academic preparation and maturity. Teachers associated college readiness to students with strong academic behaviors and the need for them to develop noncognitive skills. Students identified cognitive skills as skills less relevant than noncognitive skills to be college ready. When counselors were questioned about their understanding of college readiness, most associated college readiness with the student’s academic preparation, planning, advanced classes taken, and the maturity and independence needed to succeed in college. For example, one counselor noted that college readiness is gained by taking the “college
prep classes that colleges require for students to be academically successful at their institution.” She added, “I am sensitive to the other skills that students need, [such as] maturity, independence, tenacity…because those factors contribute to being a good student … in college. [T]here is starting to be more emphasis on that.”

Another counselor responded: “Different colleges have different internship requirements and different expectations but…in general, it means…the academic preparation to be able to go on to a four-year institution.” These statements indicated the counselors’ clear understanding of the strong academic preparation and maturity students need.

Teachers’ responses regarding their understanding of college readiness were closely related to the subject matter they taught and activities conducted within their classrooms. The traditional concept of college readiness was linked to academic behaviors. Their understanding of a required level of emotional readiness and maturity became obvious when educators addressed the need for students to display some noncognitive behaviors. Teacher 1 notes:

I think traditionally college ready meant that the student was academic and very good in school, very good in classes, and got very good grades. But I would hope that we would also consider the student’s emotional readiness and maturity when we think about college readiness.

Quotations have been edited for clarity and to eliminate redundancy. Every attempt has been made to be faithful to the original meaning.
Teacher 2 focused on skills that determined success in her class, noting, “As an English teacher, college readiness means that the student can comfortably do his or her own research from creditable sources.” Teacher 3 responded:

A student that is college ready would be somebody who understands the rigors of learning…. [T]hey don’t just know how to study, they don’t just know how to take tests, but they understand how to learn. They can process new information, connect it with old information, improve upon their entire understanding and then practice and master the concept.

According to teacher 3, a high school student must possess the following noncognitive characteristics: have strong self-regulation, self-efficacy and self-monitoring skills to be considered college ready. The alignment of counselors’ and teachers’ statements about the need for students to develop academic skills was clear. In addition, some had a deeper awareness and understanding of the need for students to develop emotional readiness as well. They believed that students have to be able to self-assess their individual capabilities to process current and new information.

Students’ answers in regards to college readiness focused less on academic aspects. They recognized maturity, independence, self-discipline, the removal of mental barriers (i.e., bad time management, bad study habits, and being irresponsible) as important factors contributing to the development of a college ready student. During the interview, Student 1 stated: “You probably have good habits if you have decent grades, but it’s not even just that. You have to be focused and you have to be organized…. Being college-ready is kind of like being mature.” A second student noted that college ready students are “…ready for…more freedom, more self-discipline, more ability to control
what they do, more autonomy and it’s…just a maturity thing.” The student added, “A lot of it is maturity in being able to have self-discipline. Then there’s also the “Are you ready for the work? Are you ready to have the self-discipline to say, ‘Okay I have to read this many pages before the next class? How am I going to do that?’ And not push it off to the last minute which I am so good at.”

Other students identified additional noncognitive skills necessary to prepare them to achieve self-efficacy and improve academic behaviors. Student 3 said, “I need to keep breaking down those mental barriers [to become] more efficient in terms of time management so that I can keep moving myself up relative to the competition.” Students 4 and 5 focused closely on their academic preparation. Student 4 noted, “Having the responsibility and developing study habits and showing your skills in high school to do well in college and…showing your skills and what they have done for you through your grades [are important].”

Out of the whole group, only student 5, addressed standardized test scores and grades as the only factors needed to be college ready. The student’s statement was: “I understand… [students] have the grades necessary to go to college, have ACT or SAT scores, and have teacher recommendations…[in place to apply to colleges].”

The following table 4.1 is a comparison of counselors, teachers, and students in reference to their understanding of college readiness.

Table 4.1

<table>
<thead>
<tr>
<th>Understanding of College Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants</strong></td>
</tr>
<tr>
<td>Counselors</td>
</tr>
</tbody>
</table>
Teachers  | Strong academic behaviors.  | Deeper awareness of the need to be emotional ready and develop noncognitive skills.
--- | --- | ---
Students  | Good grades, ACT, and SAT not as relevant as noncognitive skills.  | A need to have: self-discipline, autonomy, maturity, responsibility, good habits, organizational skills.

The most relevant difference between the adults’ and students’ responses was the students’ emphasis on noncognitive behaviors rather than academic behaviors as an important component for them to be considered college ready.

**Cognitive Skills**

Counselors, educators, and students were asked to express their understanding of the term *cognitive skills*. Counselors associated cognitive skills with intellectual skills that can be assessed and measured. Teachers related the term with the students’ learning abilities to think and process information, and students displayed uncertainty on their responses (i.e., reasoning or things you learn at school).

All four participating counselors agreed that cognitive skills are intellectual skills that can be assessed numerically. From this group, three counselors connected cognitive skills to tasks related to intelligence and skills that can be processed and measured. Counselor 1 said, “Cognitive skills are something that can result in something other than just qualitative review; something that provides some type of measure and numerical value. Another counselor’s response was: “Cognitive is how your brain functions so cognitive skills are related to that.”

The teachers’ understanding of cognitive skills was different. They related the term to the ability to think and process information in reference to the learning abilities of their students. Only one of the teachers linked cognitive skills to measurable outcomes. For one teacher, cognitive skills meant “the ability to think, [be] a problem solver,
overcoming academic challenges, [and] just basically having advanced thinking skills.”

Another teacher said, “It means the ability to process information, to think through things, synthesize information, and [describe] how well critical thinking works,” adding that “cognitive skills are things that you teach in school … and things that you can measure. So [it is] anything that can be tested or predicted based on student performance.” These responses to measurable outcomes clearly made reference to the assessment tests used to determine the academic readiness (student GPA) and school accountability only.

The majority of students did not know the meaning of cognitive skills when asked. Some students related cognitive skills to knowledge acquired in school (i.e. logic, reasoning, and intelligence). One student responded with another question: “So cognitive skills are like the kind of education we get at K-12, and non-cognitive is more of university? I’m not sure what those terms mean, especially in this context.” Another student’s response was: “Cognitive skills, I think…[they are] reasoning, logic, doing math, doing science that kind of thing.” This student continued, “Okay…so cognitive skills are things that you learn in school like the learning skills, writing skills they're…like the simple skills to be able to do certain things and complete tasks…. ” Students’ responses were vague and uncertain in reference to the term cognitive skills, reflecting a lack of understanding of the term and displaying confusion about the skills acquired in their current educational system. Table 4.2 compares the different perspective of participants about the meaning of cognitive skills.

Table 4.2

_Understanding of Cognitive Skills_
The biggest contrast found among participants’ understanding of cognitive skills was the focus on the numerical aspect typically used to assess and determine the academic readiness of the student, particularly among counselors and teachers. The counselor’s emphasis was on measurable outcomes and the teachers’ emphasis was on students’ learning abilities, rather than on assessment tests or measurable outcomes.

**Noncognitive Skills**

The counselors, teachers, and students were asked to describe their understandings of the term *noncognitive skills* without the researcher providing scaffolding or background information, two counselors associated the term with personality and the talents needed to overcome obstacles. They saw these as the non-measurable abilities that helped students to be successful. One counselor said:

> Noncognitive skills would be something that comes with your personality, something that comes with how you learn, and how you overcome obstacles. Those things are intangibles, and you can’t really take a test to see how good you are at perseverance or how good you are at hard work.

Another counselor described noncognitive skills as the “Talents the students have, like being motivated, being organized, being disciplined. Those are the things that aren’t

<table>
<thead>
<tr>
<th>Participants</th>
<th>Cognitive Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counselors</td>
<td>Intellectual skills that can be assessed with measurable outcomes.</td>
</tr>
<tr>
<td>Teachers</td>
<td>Ability to think and process information in reference to students’ learning abilities. Only one mentioned the term “measurable outcomes.”</td>
</tr>
<tr>
<td>Students</td>
<td>Uncertainty in their responses, reasoning, logic, things that you learn in school.</td>
</tr>
</tbody>
</table>
really measurable that can help the student to be successful.” However, the third counselor appeared to have no understanding of the term, saying, “Noncognitive would be your actions or your…speaking, is that cognitive?” Clearly, there is inconsistent understanding about the term “noncognitive,” and therefore, it is fair to assume, inconsistent understanding of the concept among counselors.

Educators had a generic understanding of the term noncognitive skills, but little familiarity with the specific skills and behaviors it includes. Two participating teachers admitted not knowing the term “noncognitive skill.” The other four teachers associated the term with emotional intelligence and people skills. Additionally, they identified noncognitive skills as abilities that cannot be easily measured or that do not require actively processing new knowledge. One teacher described them as “…things that are helpful in the class, like the ability to be empathetic, the ability to collaborate in groups, the ability to read the room, emotional intelligence, and people skills.” Another explained, “Noncognitive skills are something that is perhaps not so easily measured by a test, but would be things like … their level of confidence.” Another teacher said, “Noncognitive skills would be things you don't think about as much like…. if you have caught a ball 300 times in your life, you can even do it without looking sometimes. It is not that you are not thinking once again; your brain is still working, but you're not actively processing something new to compare it to the old.”

Students’ responses were also vague and uncertain about the meaning of noncognitive skills. Some related “cognitive” with the brain and “noncognitive” with abstract emotions and less thinking. One student guessed that they were “What it will take to move on, progress, and be successful?” but admitted his uncertainty, saying, “I
don’t know.” Another student responded that it was “Something with the brain. That’s what I think of when I think of that.” Another said, “I know the term, but I don't remember the definition” adding hopefully, “Your noncognitive skills are like the simple skills to be able to do certain things and complete tasks.”

Even the two students with a more accurate understanding of the term were uncertain of their definitions. One said, “So I know that means non-thinking, non-consciousness, not like math and science skills. It’s more like abstract skills, more like noncognitive skills, less thinking, more doing, more abstract emotions, and stuff like that.” The other said, “I think cognitive is something relating to do with the brain, and noncognitive, I guess it would be something not relating to the brain…[but] I don’t know.”

The following table 4.3 summarizes the different responses of counselors, teachers, and students in reference to their current understanding of noncognitive skills.

Table 4.3

*Understanding of Noncognitive Skills without Scaffolding*

<table>
<thead>
<tr>
<th>Participants</th>
<th>Noncognitive Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counselors</td>
<td>Personality traits, intangible, talents, non-measurable, I don’t know.</td>
</tr>
<tr>
<td>Teachers</td>
<td>I don’t know, emotional intelligence, non-measurable, confidence.</td>
</tr>
<tr>
<td>Students</td>
<td>Uncertainty on their responses, reasoning, logic, things that you learn in school.</td>
</tr>
</tbody>
</table>

Per table 4.3 the counselors’ understanding about noncognitive skills was related to non-measurable abilities and traits, but still displayed uncertainty in their answers. Similarly, teachers reflected uncertainty and connected the term to emotional intelligence
and non-measurable abilities. Students’ uncertainty was obvious and the concept was connected to things students learn at school.

After the researcher provided scaffolding by introducing examples and scenarios of individuals using noncognitive skills, the counselors and students began to identify familiar skills and behaviors that helped them define the concept in their own context more assertively. One counselor was able to identify noncognitive skills with “motivation, drive, and perseverance, and those kinds of things.” One of the teachers realized the role educators might play in helping students develop noncognitive skills, noting that they were something: “that you have to help build [such as students’] reactions in society, and how they should maintain their composure.”

Even with prompting, the students’ responses reflected a lack of clarity. One thought noncognitive skills were “things that aren’t fundamental,” adding that “maybe an elective would be a noncognitive skill.” Another tried (unsuccesfully) to hedge his bets, saying “I think that noncognitive skills are important to develop at schools, but they’re more difficult to assess because, then, we get into the issue of standards in grading and objectivity between students because it’s very difficult.” A third incorrectly linked noncognitive skills and the implementation of the Common Core State Standards. Two students had vague understandings, suggesting that “…‘Noncognitive’ is probably a little bit more subjective like more opinion-based,” the other student said: “Well, it sounds like something you can’t necessarily measure, maybe, like intangible, sort of.” After a brief explanation provided by the researcher about the term noncognitive skills, some students were able to associate the concept to their current experiences. It became obvious that most knew indirectly [without a defined term] how to relate certain
behaviors to some of the noncognitive behaviors and skills included in this study’s framework. The table 4.4 below provides a summary of some answers collected after researcher provided scaffolding to expand participants’ abilities to respond to the question.

Table 4.4

*Understanding of Noncognitive Skills with Scaffolding*

<table>
<thead>
<tr>
<th>Participants</th>
<th>Noncognitive Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counselors</td>
<td>Motivation, drive, and perseverance.</td>
</tr>
<tr>
<td>Teachers</td>
<td>Composure in society.</td>
</tr>
<tr>
<td>Students</td>
<td>Non-fundamental things, important skill difficult to assess, implementation of Common Core, and intangible.</td>
</tr>
</tbody>
</table>

The role of noncognitive skills. When the researcher asked counselors, teachers, and students to identify the role of noncognitive skills in preparing students for college transition, the counselors identified noncognitive skills as important factors in their preparation for a successful and sustainable college transition. One counselor said, “When students aren’t ready with the noncognitive skills, it’s harder for them to transition and succeed, and so they could drop out. I mean that’s kind of the worst case scenario or they may end up having to repeat classes because they weren’t quite ready for that challenge, and maybe it wasn’t that academic, it was maybe socially … so I think there is a greater impact at … the individual level.” Another counselor said: “I think, stress reduction …maturity level is really important, they have to advocate for themselves … here, the parents can be very overbearing.” Another counselor’s opinion about the role of noncognitive skills was, “I think it’s very important, because cognitive skills are only going to get kids so far. They [students] could get good grades…. But they [colleges] are
going to look for kids who are doing extra-curricular activities…those extra things that make [students] stand out, so I think, it’s really essential.” According to the counselors, the lack of noncognitive skills (i.e., resilience and perseverance) can have a negative influence in student’s academic transition and college readiness. Grades were considered important, but equally important was the ability to cope with new demands as students progressed academically.

The teachers’ responses about the role of noncognitive skills to prepare students to be college ready were associated with the contextual transition the students will experience upon attendance in college. Another important factor to consider in this high socio economic high school context was the high level of parental involvement and overprotection that, in many cases, limits student self-advocacy. Teachers, in particular, expressed their opinions on this particular issue. They stressed the importance of self-advocacy, independence, self-management, and adaptability to cope with the new challenges. One teacher commented:

I'd say the biggest [noncognitive skill] is being an advocate for yourself, being able to speak up for yourself because your mom and your dad are not going to be around to call on your behalf. So … if you have an issue [you need] to go to your professor by yourself and say, "I'm having a problem. I need help." Or if you are receiving financial aid, you need to be your own advocate and go to speak with someone in the financial aid office.

A colleague agreed, adding:

[Students] have to be able to live in a different environment. They have to be flexible, and they have to work in groups. I actually wish we did a lot more
placement of [students during] senior year in work type situations so they were getting away from this very sheltered … [and] protective environment and had an opportunity to interact more in the world.

In reference to this contextual transition for students to be able to adapt to a different environment, another teacher addressed the importance of these essential skills to be used not only in college but life in general. She commented:

The noncognitive skills…are the nuts and bolts that get students through life, not just college. They must know how to get up in the morning, how to find a classroom when it’s a building they have never been in, just the basic skills of orientation, self-management, and that kind of stuff.

Teachers recognized the importance for students to become independent, able to self-advocate, and able to cope with their new academic and social demands. They highlighted the sheltered and protective environment that students currently have at the site as a one factor preventing students from developing these noncognitive skills.

**Advantages of noncognitive skills.** Counselors and teachers agreed on the many advantages that noncognitive skills provide students, recognizing them as the abilities that will help the individual to perform in the real world.

All the counselors concurred on the advantages of students developing noncognitive skills as a foundation to become independent and to be able to transition from one environment to the other. They agreed that these skills would be applicable even beyond college graduation. One said:

We are hoping that the place that [students] find, is a place where they can grow in… [building] these noncognitive skills because those are the skills that they are
going to be able to take from one workforce to another, one career to another so that when there are changes in their life, they can actually transition very well and all they have to do is just learn some new technical skills. So, I only see advantages of having noncognitive skills and learning to become more independent, and have perseverance and those kinds of things.

Another counselor agreed:

[Noncognitive skills] provide a great advantage, absolutely!…. It's very important that they have…or develop those skills, or at least be made aware of those things early on; the earlier, the better.

A colleague added:

I think it’s essential to build a foundation, actually, in high school, to build the noncognitive skills because when you become an adult, you’re not going to have six teachers, and a counselor, and your parents, and everyone babysitting you to do those noncognitive things. I think it’s a really great place to learn the foundations in high school.

Finally, the fourth counselor saw the advantages effective noncognitive skills provide beyond school, commenting, “I think it would help them in life: working, jobs, interviews, just functioning on a daily basis.”

Similarly, teachers identified noncognitive skills as basic life skills that would allow the student to plan, make decisions, and manage themselves, not only in an academic context, but also beyond the boundaries of college. One teacher remarked: “I mean, I think it's only advantages, they’re just life skills…even if you're not going to college you need those things [noncognitive skills] to function in the real world.” Another
teacher added: “I think noncognitive skills would be planning for adversity, planning for failure, having a backup plan, having other choices, and not being narrow-minded. And again I don’t know how you test people on this, but I think those are critical skills for all of us as we go through life, even not being college oriented.” A colleague noted, “Some people may not have been taught those things at home, and so it’s not that they’re intentionally not developing these skills. They [students] just were never shown these skills. So I don’t think there’s any disadvantages to it [developing noncognitive skills]. I think it’s solely positive.”

Students also agreed on the benefits of having noncognitive skills, recognizing the ability to be independent as an important factor in their successful decision-making. Some students identified these skills as the skills that educators cannot measure or force students to develop. Students identified the relevance of implementing noncognitive skills as an important component to create a smoother transition to college and develop leadership skills. One said, “I just think that there’s always an advantage of knowing noncognitive skills because you just have…a more open mind, and you just have more ideas, like, pros and cons [impact on decision making], in…how to make a life decision.” Another agreed, linking the development of noncognitive skills to the adoption of the Common Core: “Obviously, there are advantages to developing any skills. Research is showing that noncognitive skills are becoming more and more important in the classroom. That’s where we get the Common Core again.”

A classmate recognized the value of noncognitive skills outside of school, commenting, “I think you’ll become a better person in…the real world, because…when you go to college or…even beyond college if you are doing an internship, or fellowship,
or you have a job, you are going to need these skills to be a successful person and successful leader.” Another saw effective noncognitive skills as helpful in the transition to college, optimistically noting, “I think, it’s a huge advantage because if you can develop this in high school and you show up to college with … well-tuned noncognitive skills, it’ll be a very smooth transition. There will be no trial and error, and you’ll be there prepared.” One student saw noncognitive skills as particularly important because adults did not impose them: “I think there aren't any disadvantages of developing noncognitive skills. I think you can only benefit from having noncognitive skills because those are things that your teachers can't force you to do … there are things that you actually have to implement by yourself.” Anticipating the transition to college, a student noted, “I think that it will be easier to succeed…and transition into college if you have these noncognitive skills…. You’re going to find it very difficult if you’re not able to show up to class…[and] commit to things and…correct what’s going wrong…. I mean being empathetic…[and] having the interpersonal and social skills especially, I feel [are] really important for life in general not just college.”

**Current practices.** When counselors and teachers identified their current practices as they prepared students for a successful transition to a post-secondary education, some counselors believed that the lack of accountability and consequences of current school policies regarding students’ behaviors contributed to the lack of opportunities for students to develop noncognitive skills. One counselor complained, “If there is a policy…in place, but there are no consequences that follow when students break that policy or break the rule…I think we are doing a disservice to students…. We are not helping them to develop the understanding of the consequences of…not following
instructions. I don’t think the schools are doing a really good job of helping develop or reinforcing these skills.”

Additionally, counselors addressed the need for professional development on topics related to noncognitive skills for the counseling department. They also identified current practices and support systems that focus solely on the cognitive and measurable aspects of education. Another counselor addressed the lack of realistic expectations from some of the parents during the students’ college application process as a negative factor limiting the opportunities for students to find the right college fit and make a successful transition to college.

Another counselor described the complexity of the job: “We meet with [students], we give information, and we talk to them, kind of doing an individual assessment … to get a sense of where they are [emotionally].… We encourage and provide resources to try to help them understand what those things [noncognitive skills] are, how important they are for their success, and what they mean to them.”

One of her colleagues commented on finding the best placement for students with weak academics, saying, “The academics are really regressed and there is a reason why students with certain academic profile aren’t really admitted because [colleges] know [students] are not going to be able to handle this [new academic expectation]. So I try to find a place where it will be challenging enough [for the student] but also a comfortable space.”

Several teachers conceded that the lack of accountability and consequences for student behaviors contributes to the lack of opportunities for students to develop noncognitive skills for a successful transition to college. One complained about prevalent
absenteeism: “I have no idea who's excusing or why she [a particular student] is absent. You know they always say they are sick. [At college]…you don't have a parent to excuse your absence…and your professors don't want to hear your sob story; they just want your work.”

Another commented on the tendency of the adults to be overprotective:

We are trying to use real scenarios. But even as a senior, as an 18 year old … [students] are still being treated as if they are 10 years old. It doesn’t seem to be a consequence anymore to a lack of effort. We will baby them, hold their hands all the way ‘till 18 years old. I think we are overprotective. I am a big hot stove theory person. You have…to get burned to learn. If you don't burn yourself, you will never learn what a hot stove is. You almost wonder if a trial by fire would actually be better than holding their hand anymore. So definitely there are no consequences. If not none, there are very little consequences.

Another teacher agreed:

Students can get away with never being independent in high school. There are always support systems [parental involvement] that will bail them out. Back in the old days if you did not do well, they [your parents] sent you to a trade school, and you learned how to be a welder or a carpenter. I almost wish people would do that now. So yeah I think there is a disconnection. I saw it in the early 2000s; I imagine it is probably still there.

One teacher and a counselor expressed their concerns about students who are not receiving the right courses, recognizing that they are not doing enough to prepare their students to become more independent. They agreed that the main focus of the school
system is on the cognitive aspect and not so much on life skills or the development of character. The counselor stated:

I honestly don’t think we’re doing enough… I think our goal is to get them done [graduated] and send them off. I don’t think we’re doing enough because… the kids are not ready for the independence that they’re going to have to deal with when they get to college. I think we’re teaching cognitive skills, and we’re teaching them how to read and write essays, but not the other stuff. We used to have life skills as a graduation requirement in California.

The teacher added:

Years and years ago there used to be life skills classes. But most campuses have gotten away from that. We are just more towards the [academics]. I feel like we are getting back to reading, writing, and arithmetic, and that’s about it. It baffles me that we will not have certain skills being taught like, say no to drugs; we just assume they will learn that.

Additionally, some educators concurred that the preparation given to current students is not the ideal; they believed this is the outcome of the lack of cohesiveness in certain academic departments and the lack of a cohesive vision and leadership in the school. One teacher said:

Right now, we’re pretty much doing the same thing… during the four years, but they [students] don't have any opportunities to flex their muscles in the real world. The problems we've experienced for the past 10 years at this school, in particular in the math department…it's really problematic, and I think we had other departments with problems as well. So I don't think we are cohesive, I think that
our administration is a problem. We don't have a cohesive vision for this school.

Her colleague added:

I think sometimes the high school is doing its best with the limitations that we have, but we [educators] could change some of those limitations so that we could do better. Every high school…[has] a district that’s running the high school. There are always different voices, different influences, and those don't always get along.

Another teacher believed that current practices in the school system allow for the placement of senior students in many advanced classes, affecting the quality of students’ work as a result. He said:

Yes, I know we have counselors that are trying to counsel our students to take the appropriate classes, balanced with the parents and students themselves pushing the students to be in the best classes possible…. I think that students are pushed into way too many AP classes, and I see a lot of students doing things medium [average] but not doing anything well.

Continuing with the identification of current practices, in reference to opportunities for students to be able to explore other colleges, counselors expressed their concern about current practices limiting the students’ capability to find the right college that will fit student’s individual needs and profile. Counselors mentioned the placement of students in the wrong classes and irrelevant graduation requirements as potential factors limiting the ability of the students to a successful transition. One counselor said:

It just feels like we’re totally pigeonholing our kids…[For example] the UC and Cal State forms that…[students] don’t really…[need to complete]…. The kids,
who want to go to these schools, [should]…take the right classes to…[apply] to these schools. Why are we [counselors] make Johnny…take those classes when he has no interest in even staying in the state?

Another counselor’s response was: “We have these crazy grad requirements that a lot of kids have no [interest] in. A lot of kids here go to a local community college and then, they’ll take over the family’s business. [Therefore they wonder], “Why do I [the student] need to know chemistry?” Another counselor said:

I don’t really know how we’re preparing students for that [transition to college], at all. I just feel like we’re not really setting up our students to be successful because we’re not offering them courses that will help them to succeed. But why would you force someone to take a class that is not relevant to anything, and then not replace it with something that they [students] could use. I don’t know if I’m really making sense.

One educator’s response in reference to current practices preparing students for a successful transition to college identified the preparation of the students as a process merely helping students to transition from one classroom to another. This teacher stated, “Most of our preparation is more in the realm of helping them transition from one classroom to another. It's being done for them.”

In reference to current practices, a special education teacher expressed his concern about the possibility of overlooking the importance of teaching noncognitive skills to better prepare and fulfill the needs of all students. He said: “I don’t know that we are looking at this as carefully as we should. I would worry that perhaps we have short changed our focus on noncognitive skills because we are surrounded by people [parents]
that tend to be very successful anyway.”

Some teachers concurred that students are over-tested, recognizing that SAT scores are not accurate predictors for colleges, and that tests aren’t necessarily good measures of other abilities such as resilience or creativity. One teacher’s response was: “I think every teacher … will say that we are over testing. Students and teachers begin to think more about what’s on the test as opposed to [a real] evaluation of what a student is learning, or how they’re learning.”

Another colleague added:

I think we over test, and I would hope the colleges aren’t simply relying on SAT scores. I think tests are difficult for some people. I’m not sure that they’re a good measure of a student’s resilience or creativity. I think…sometimes there is so much pressure [for students] to succeed in college and some kids just aren’t ready, no matter what we’ve done. So it’s definitely a mix of both, and students need to hear that it’s okay to take some time off.

Professional Development was another important aspect mentioned by counselors and teachers in reference to current practices and support systems preventing them from preparing students for a successful college transition. One teacher said: “The stuff [professional development] that we get from the district is not great. It’s not quality. I don’t feel it’s teacher driven. I feel like it’s driven for the district.” A counselor’s response about this particular issue was: “We get a lot of professional development on the academic skills…. I go to a lot of trainings and meetings…all of that kind of things related to [cognitive skills] but nothing related to those things [noncognitive skills].”

On a positive note, teachers were able to identify the different instructional
methods used to prepare their students while incorporating noncognitive skills into their instructional time. One teacher explained that she models how to self-assess and self-correct student work for them in hopes of improving their noncognitive skills: “I’m going to cross out your grammar…or your spelling when it's wrong. And it's not because I'm trying to poke and prod at you. It's because I know that you can produce better work, and I want to see that from you.”

Another colleague added:

My class is a support course that helps students prepare to complete homework for other classes to learn and improve study skills, and to prepare them for exams…. It's a much better system [if students recognize their areas of improvement] versus if I say, “You need to improve on this [area]…” because then there could be an argument. I definitely want them to own those kinds of statements and be able to say it for themselves.

Another educator expressed the need for students to be empathetic and able to self-evaluate their work in order to measure their progress, stating that teaching a cognitive skill was easier and less rewarding than teaching a noncognitive skill. She said:

Whenever they [students] do a group activity, I make them write self-evaluations after. So I can see…how they assess their work in a group. Cognitive is easier to teach, but I think noncognitive is actually more rewarding as a teacher. It's teaching [the students] very basic life skills.

The culinary arts teacher described his teaching strategies, mentioning how he encourages independent organizational skills, how to become a self-driven, and how to be a team player in order to enhance students’ decision-making skills. He said: “For
example, when we do the catering for the lunches, I have my advanced class plan out the menu, organize who’s going to do what, delegate, become a team player, and make the decisions.”

**Extra support systems.** To further explore the educators’ current practices, counselors and teacher were prompted to identify the extra support systems offered to students to prepare them to be college ready. One of the counselors mentioned the intervention counseling for students who are in crisis as the only extra support besides the academics. She said: “No. I would say no other than … the intervention counseling center for students who are in crisis.”

Two other counselors identified several techniques practiced with their students to help them develop self-regulation skills such as organization, planning, and follow-through as students learn to transition from one system to the other. One counselor said,

So as a counselor, I really don’t have the opportunity to do the cognitive side, but the noncognitive, absolutely… For example, when I meet with the students…to do college planning. We talk about how to stay organized, how to plan strategically so [they can be] on track to be college ready.

Another counselor added: “I follow through… I give students a general idea of how to get organized, and then I check with them every so often to see if they fulfilled what they promised.”

In an effort to give voice to students, a similar question about current practices and extra support systems to prepare students for a successful transition to a post-secondary education was addressed. The students were able to express their individual opinions in reference to their experiences and interactions with teachers and counselors.
One student was able to recognize the value of performing a self-assessment, being able to self-reflect, and self-correct her work with the use of support systems provided by her English teacher. The student said:

   Every essay we wrote… [We would] fill out a form, [to do a self-assessment]…. And we had to rewrite every single essay. I mean those rewrites are the most helpful thing for improving essays.

In reference to support systems, another student said, “I think that the counselors are really helpful…. [But the help I am receiving] isn’t through the school, but my parents did get me a separate college advisor person.” Another student added, “Ms. Lulu [pseudonym] is my only college counselor, and she’s helping me…to get through this [college] application process as swiftly as possible.” The response of another peer was:

   Here you can have a one-on-one with your teacher. In college, depending on where you go especially, if you want to go to a big school you will not have that interaction. So, you have to learn to be independent and do things on your own. Ms. Hope [pseudonym] is helping me a lot with the organization, and helping me figure out what I actually want next year, where I want to be exactly, because at the beginning I really didn’t know.

Students displayed awareness of the usefulness and convenience of their current support systems, but also recognized the need for students to become more independent once they leave their current educational system.

**Self-Regulation Skills**

   Counselors and teachers had the opportunity to express opinions about the relevance for students to apply self-regulation skills to successfully transition to college.
Counselors, teachers and students recognized the importance for high school students to develop self-regulation skills in order to be college ready and sustain new academic demands. The most valuable set of skills and behaviors selected by all participants were: resilience, independence in organizing, having a variety of learning strategies, and self-evaluation.

One counselor’s responses was:

I mean you are not going to the same class every single day, every single hour, [at the] same...[time]; you just don’t have that kind of handholding that might happen especially at a school like Norman Dee High School. So you have to know how to organize...self-assess, and determine...the type of help and how you can move forward and...learn best.

Counselors recognized the importance for students to develop and master self-regulation skills. They stated that upon transition to college, students will encounter a different context, with less hand-holding, and the confrontation of new challenges on their own. Resilience was a noncognitive skill identified by counselors as the most important ability for students to overcome their new challenges and failures once in college.

Another colleague added: “Those [self-regulation skills] are definitely relevant for success in ...college... Students can’t rely on someone else in the college atmosphere...to do that for them. They have to be able to find what they need on their own in order to be successful.”

In agreement with previous statements, another counselor added,

I think they’re all very relevant; all these skills have to do with maturity....

Resilience, I mean, in many ways, academically and personally. Students have to
start building [those skills] because it only gets tougher as they get older and disappointments are going to happen. I think, it’s important to have that [self-regulation skills] early on in high school. I think it is the most important skill that any teenager could have because that could really be applied to anything. And if you have resilience you can overcome anything.

Another counselor responded:

Well, definitely, you have to be independent. No one is going to be there holding your hand. Studying and learning strategies definitely! Like I said, you have to…do it on your own. Your parents aren’t [going to be] there to help you do your homework, or contact your teachers, or anything like that.

Similarly, teachers agreed that under a new college context, the hand-holding culture will not be present, and resilience will play an important role for the student to persevere and overcome obstacles. One teacher’s opinion was: “It’s incredibly relevant; I mean again these are also life skills. And so if we're not … helping them [students] to foster that, they're not going to be successful.” Other teacher added: “So yes, I think all of these [self-regulation skills] are critical for college, especially because at college there is not going to be a lot of handholding.”

Two other teachers agreed on the importance of students becoming independent, developing a variety of learning strategies, and developing resilience to adjust to any new context in order to sustain and achieve new academic expectations. One teacher’s observation was:

All of these [self-regulation skills] here are super important. Most kids, when they go to college are not going to be living at home, and so if their parents have
helped them along their 18 years of life to be organized, [telling] them to do homework, and be prepared for test, that is going to be a major problem when they go to college and they don't have that person. I mean you could always pay somebody to watch over you, but then you are not growing up into an adult.

In addition, another teacher responded:

You have…to learn how to review on your own…if you go to college and [if you] expect your professors to give you a study guide, you are already on the wrong path. Resilience –I think that is obvious. You have to keep going…you can't give up.

In addition, one teacher recognized the importance of modeling self-corrective behaviors to her students during instructional time. She facilitates students’ understanding of these important behaviors by performing a self-assessment of her own mistakes. The teacher acknowledged that it is perfectly fine modeling a mistake, as long as self-assessment, self-reflection, and self-correction actions are involved in the process. She stated, “They [student] constantly see me [making] mistakes. They'll see me [making] mistakes with technology. I model for them: ‘this is really uncomfortable for me to do…I don’t like to show when I’m not good at something, but I think is important for you to see adults struggling with this so I am going to do it.’”

Students also had the opportunity to provide their opinions about the relevance of having noncognitive self-regulation skills. All students agreed on the importance of self-regulation. Some of them associated the concept with the organizational skills necessary to manage their workload. Other students mentioned resilience and self-evaluation as essential tools to develop good study habits and be able to remove mental barriers. One
student said: “It is important to be able to…self-evaluate and to change based on that, but I’m not necessarily sure if it’s the most important thing out…of the other skills.”

Another student response was:

I think being resilient will be very important in college … because not everything is going to work for you, and understanding what does work for you and what you’re comfortable with, I think, that’s very important. I have a pretty good understanding about resilience but I think, in general, in high school … it’s not as strong as it should be.

The response of a different student was: “I think if you don’t assess yourself…then you are not going to be as good as you can be…you had to be honest with yourself and say ‘I need help with this, so I am going to [find my own ways] to improve.’” Another student mentioned resilience, self-evaluation, and learning strategies as important skills to make “learning more efficient and be able to remove their mental barriers.” Another student expressed his concern about the high emphasis on testing in the K-12 system limiting the students’ opportunities to self-assess and reflect. He said:

I think that a lot of times, in high school, you just leave it up to other people…[Who are] looking at your…test scores, and looking at your GPA or SAT, and I don’t think there’s enough…[You need to be] looking at yourself and saying, “Okay, I need to improve on this.”…. We have people telling us what we need to improve in.

Using the conceptual framework guiding this study, under the self-regulation noncognitive learning skills category, participants had the opportunity to select the most valuable attitudes and behaviors for students to achieve and be able to succeed in college.
Table 4.5 indicates the most valuable noncognitive learning skills and behaviors under the self-regulation noncognitive learning skills category listed in order of participant priorities.

Table 4.5

*Most Valued Self-Regulation Skills.*

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<th>ALL PARTICIPANTS</th>
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<th>TEACHERS</th>
<th>STUDENTS</th>
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<td>Self-Evaluation.</td>
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For counselors, the most valuable skills were self-evaluation, resilience, and independence in organizing. The teachers’ most valued self-regulated noncognitive learning skill was resilience, followed by self-evaluation, and independence in organizing. For senior students, the most valued self-regulation noncognitive learning skills were independence in organizing; resilience and learning strategies followed, and were equally ranked.

**Self-Efficacy Skills**

When counselors gave their opinion about the relevance of their students developing self-efficacy skills in order successfully transition to college, they believed that the new college environment has a direct impact on the students’ ability to transition and adapt to a new educational context. Regardless of the student’s academic preparation, counselors recognized the importance for students to develop abilities that will help them
approach difficult tasks, become confident on their decision-making, and develop
multitasking skills in order to sustain the new social, emotional, and academic demands
of a post-secondary context.

One counselor said, “Even the [academically] well-prepared students will face
challenges in college, just because it…[is] a different…environment. So they’ve got to
be able to approach a difficult task, persevere…[be self-confident], and be able to
multitask.” Another colleague added: “When you have a better sense of who you are, I
think you are just better able to connect…or make the right choices, so I think these are
all really important. “Another counselor believed that mastering self-efficacy
noncognitive skills was more attainable in college. She said: “I think, they [students] can
do this [self-efficacy skills] … when they get to college. It’s harder for teenagers … to
have the confidence and self-identity because they don’t know who they are.”

In alignment with some counselors’ statements, teachers also recognized the
importance for students to develop self-efficacy skills in high school in order to be able to
navigate the new academic system and understand their individual roles in their new
college context. One teacher said:

Self-efficacy is incredibly important for them to transition to college
because…[they are] going to have all those things coming at them. These new
things [such as] dealing with…the registrar, getting…[their] schedule, and
knowing…when offices are open…. Even just growing as a person and
understanding who you are outside of your bubble is…difficult, so having self-
efficacy skills is pretty essential for functioning.

One teacher associated confidence with resilience. She believed that the combination of
being goal-oriented and developing purpose was a powerful combination to overcome obstacles and eventually succeed. She said: “I definitely feel these skills are important….

Confidence is related to resilience…if a person believes ‘Okay, if I don't give up, I will eventually succeed’ [they will].”

One teacher added:

These are all important…I don't know if you have to be multitasking all the time…sometimes we multitask too much…. You have to understand how one thing affects another, and how all those things are tied together. Confidence is a big one because a lot of our kids do not have confidence.

Students’ perceptions about the importance of developing self-efficacy skills in high school pointed at having a positive attitude, the disposition to approach a difficult task, being confident, goal-oriented, and self-driven as important components to be successful and highly motivated in college. One student said: “Very relevant, because…you have to have a good attitude to be successful. If you’re going to…[be] negative and not…optimistic then you’re setting yourself up for failure.” A peer added: “I’m looking at positive attitude and self-driven [behaviors]…. If you find a struggle, you can’t just give up and quit college. You have to keep getting the positive attitude and…be self-motivated to continue.” On a self-reflective note another student added:

I am a very negative person in general, but even I know the value of a positive attitude and a positive…look at things [in order] to be committed and goal oriented…. To get to places you…need to know where you want to go…. Having goals, being goal oriented, and self-driven is pretty important…to reach those goals.
The response of another student was:

Self-efficacy is extremely important because when you’re in college, you’re more independent, and…the drive that comes from the inside, and the respect that you have for yourself is more important than ever. So, things like confidence, having a direction and commitment, and being goal-oriented, these are the kinds of things that fall under your control when you come into college rather than your parents’ control.

Another student said: “Disposition to approach difficult tasks and persevere because, if you see something that looks…[difficult], and you don’t have the will to get through it…you are not going to get through college very well.” Similarly, another student said, “I feel…[that] confidence would be very important because if I believe in myself…although the challenges may be difficult, I know that I could push through them.”

Under the noncognitive learning skills category of self-efficacy, all participants had the opportunity to select the most valuable set of attitudes and behaviors that they considered necessary for students to develop and succeed in college. Table 4.6 provides a summary of the most valuable noncognitive learning skills and behaviors. They are listed in order of priority according to the participants’ responses.

Table 4.6

*Most Valued Self-Efficacy Skills.*

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For counselors, the most valuable skills were being self-driven, the ability to multi-task, being goal oriented, having the ability to develop a sense of identity, and having confidence. Teachers’ most valued skills were the disposition to approach a difficult task and persevere, being self-driven, having confidence, developing purpose, and having a positive attitude. Students valued the following skills: being self-driven, having confidence, having the disposition to approach a difficult task and persevere, the ability to multi-task, being goal oriented, developing a purpose, developing self-identity, and searching for direction and commitment.

**Self-Monitoring Skills**

In gathering the participants’ responses about the relevance of high school students developing self-monitoring skills to better prepare them to a successful transition to college, the majority of participants concurred on the importance for students to
develop self-monitoring skills. Counselors and teachers agreed on the need for students to develop and improve these skills to modify a variety of learning strategies to monitor, correct, and improve academically.

One out of the four counselors found self-monitoring skills less important than self-regulation and self-efficacy noncognitive skills categories, stating that maturity levels pay a significant role in the development of these skills. She said: “it’s an age thing [maturity], and they may not be there yet.”

Conversely, the other three counselors strongly believed in the importance and benefit of students having these skills for a successful transition to college, recognizing that students must build and improve current levels of self-monitoring skills. One counselor said: “Absolutely! …. You don’t have to be 100% good…at these things [skills]…when you start college, but you have to have a sense of [them]…. You have to keep building on them, and I think this goes hand in hand with the self-evaluation that was part of the self-regulation.”

A colleague’s response was:

The ability to employ and modify a range of learning strategies is important because each part of college, your course, and everything is a little different. [The student]…has to figure out [that] just because the student does something successful in one class; it doesn’t mean it’s going to work the same way in another course.

Teachers concurred with the three counselors on the importance of students being able to modify and develop a variety of learning strategies and self-awareness behaviors to monitor their actions, and eventually correct and improve their mistakes. One of the
teachers said, “You're going to sink if you are not going to swim, if you can't figure out how to change your approach to your own learning.” Another teacher believed that if a student is self-aware, that skill can prompt the development of self-monitoring skills that will facilitate the process for students to be self-reflective to identify and correct their mistakes. He said: “By self-correcting and doing something different, you are understanding that reflective awareness of yourself.”

Some teachers mentioned tolerance for ambiguity, and the ability to develop a variety of learning strategies, as important skills for students to be able to cope with the new academic and contextual demands. One teacher’s opinion was: “I think tolerance for ambiguity also reflects a general ability to get along well with people with whom you disagree [with].” In reference to a range of learning strategies, another teacher said, “It would be nice to think that students could go off to college and say: “I’m not really getting what this teacher is telling me, I’m either going to form a study group or…going to seek out the professor for extra time.”

Another teacher used one of his students as an example to address the importance of self-reflection to stimulate a positive change in a student. He said:

I have a student this year [who is]…a completely different student than he was last year. He’s a much better student, and it’s almost like [if] he had a [moment of] self-reflection and was self-corrective [over the summer break].

The noncognitive category of self-monitoring was extremely relevant for the sole special education teacher participating in the study, particularly with the non-cognitive skill of self-reflection and self-corrective behaviors that provide important support systems to students with learning disabilities. The teacher said: “I'm a special education
teacher so these are skills we definitely want students, and especially students with learning disabilities, to be able to master.”

When students were asked about the relevance of self-monitoring noncognitive skills, only three students out of the eleven participants believed that this self-monitoring category was less important than the previous ones, but they were unable to provide a specific reason to justify their statements. One student said: “It’s not as relevant as the other ones, I would say.” The response of another student was: “You don’t need to have that [self-monitoring skills] for college and still succeed. You can succeed without it, but it is helpful to have it.” Another student stated: “No, I would consider it important, but not as important on this list. It’s not as important as [items on] the previous two lists [noncognitive skills].”

The remaining students, however disagreed, and concurred about the importance of having self-monitoring skills to be able to analyze, reflect, modify, and improve on the quality of their work. One student said: “These would help you … change your way of thinking and developing a new way to learn.” Another student’s response was, “If you can’t look at things…like a report…[and analyze]…what went wrong, what worked, what didn’t and then move on and fix it…. I mean if you can’t do that you really can’t improve.” Students placed an emphasis on noncognitive skills such as self-awareness, self-reflective, and self-corrective as valuable skills to evaluate and adjust to their new roles and contexts for a successful transition to college.

The ability to employ and modify learning strategies was identified as an important ability for students to be able to adapt, develop, and modify their own learning strategies. One student’s response was, “I think if you reflect on yourself, or you're able
to look at an essay that you did poorly or maybe not as good as you thought…then think about the ways that you can do it better for next time, I think that is really important.”

Another student agreed, “I think if you reflect on what you’ve done, where you are, and who you are as a person…you can better improve yourself.”

Under the category of self-monitoring noncognitive learning skills, all participants in the study had the opportunity to select the most valuable set of attitudes and behaviors for students to have and be able to succeed in college. Table 4.7 indicates the most valuable noncognitive learning skills and behaviors for the Self-Monitoring category listed in order of priorities or value.

Table 4.7

*Most Valued Self-Monitoring Skills.*

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<th>ALL PARTICIPANTS</th>
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For counselors, the most valuable skills were: having the ability to employ and modify a range of learning strategies, being self-reflective, having self-awareness, and being self-corrective. Teachers’ most valued skills were: being self-reflective, having
self-awareness, having tolerance for ambiguity, being self-corrective, and having the ability to employ and modify a range of learning strategies. Students’ most valued set of skills were: having self-awareness, having the ability to employ and modify a range of learning strategies, having tolerance for ambiguity, and being self-reflective.

**Interpersonal and Social Skills**

In response to the relevance of developing interpersonal and social skills, all participants agreed on the importance to display and foster these skills for students to successfully adapt to new academic and social context. This particular category was identified as an essential component, not only for college readiness, but also for life and employment success. Counselors concurred on the importance of having interpersonal and social skills as an important component for students to adapt to the new academic and social context and be able to engage with others and respect their viewpoints.

Decision-making was another important skill identified; they felt students needed to develop the capability to make their own decisions without having to request parental approval. Being a team player was also associated with the ability to achieve collective success.

A counselor’s opinion was:

[This is] very important, but I think this is something that definitely develops….

[It becomes] more visible as students get engaged in their new community because now for the first time…for most students…[will be] in a completely different area…[and they] need to have some interpersonal…and social skills in order to place [themselves]…in a new environment and be comfortable enough to engage, and not just [socialize]…but to work together and to be respectful of
different opinions.

Another counselor believed that the skills listed under the interpersonal and social skills category were all important and relevant for a successful student’s transition to college and life in general beyond college. She said: “Working under pressure, definitely is important, decision-making, communication skills, emotionally secure, creative, responsible, grateful, empathetic, and respectful. Okay…like in life, all these things are really important.”

All teachers agreed on the extreme relevance for students to have all the skills and behaviors listed under the interpersonal and social skill category. One teacher felt that if students are not able to develop these abilities during college, success after college is less likely to happen. She commented, “I think if you don't develop these [interpersonal and social skills] in college, you are not going to be successful after college.” Another teacher highlighted skills such as effective communication and being a team player as important interpersonal and social skills needed to succeed in college. She said, “You can be the greatest in terms of knowing the knowledge of your career, but if you are not good interacting with other people, you're not going to succeed. These things [skills] are absolutely important.” Another teacher added, “I see the words ‘moral’ and ‘ethically accountable,’ ‘emotionally secure,’ ‘creative,’ ‘responsible,’ and ‘grateful’ as also important.” A different teacher responded, “Extremely important and the most important to me…[is] being a team player.” A colleague added: “Well especially for my class, because my students work in groups and they need to delegate, and become a team player, and know how to pull their own weight.”

Similar to what some counselors said, students believed that becoming
independent and having the ability to work well with others contribute to their understanding of how to interact and respect others’ points of view. Some students identified the importance of these interpersonal and social skills as foundational life skills to prepare them for the workforce and life in general. One student remarked, “If you are more independent, and...[dislike] working with other people, then you’re not going to...[understand] other people’s views. Maybe they have a different way of thinking and...strategy of learning something [that can be beneficial]...for you.” Another student’s response was, “All these skills are just general life skills that people should have, and of course...I think college is a way to prepare you...for life and for the work place.” Another student believed that having the empathy to show compassion and to be able to relate and interact with other people was also relevant. Two other students believed that interpersonal and social skills are capabilities that everyone must have to adapt to new situations in order to improve on their decision-making skills and be able to function in “regular life.”

Under this noncognitive category, all participants in the study had the opportunity to select the most valuable set of attitudes and behaviors they considered necessary for students to have to succeed in college. Table 4.8 indicates the most valuable noncognitive learning skills and behaviors listed in order of priorities or value.

Table 4.8

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<th>Most Valued Interpersonal &amp; Social Skills.</th>
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For the counselors, the most valuable skills were: the adaptability to work under pressure, decision-making ability, being responsible, and having good communication skills. The teachers’ most valuable set of skills were being empathetic, having good communication skills, having the adaptability to work under pressure, being responsible, respectful, and grateful. Students’ most valued skills were being a team player, having the adaptability to work under pressure, having good communication skills, and decision-making abilities.

**Academic Behaviors**

Participants were encouraged to express their perceptions of the significance of high school students developing academic behaviors to successfully transition to college. One counselor believed that students should be able to evaluate and self-reflect, be more engaged and invested in the decision-making process of choosing the right college, and be able to develop academic behaviors such as the ability to employ a range of learning strategies, and attend classes. Other counselors addressed the need for a stronger discipline system in the school as critical component to prepare students for a successful transition to college; they believed that students in this particular secondary context are
not accustomed to accept criticism. One counselor said, “If we really establish discipline here in high school, then when they [students] get…[to college, they will be expected to]…have the discipline [and] skills and hopefully, they can adhere to them [even if]…they’re off a little bit.” For another counselor, the following noncognitive academic behaviors were significant skills to cultivate during high school: direct communication, finding and using resources, attending class, paying attention, and accepting and giving criticism. Her comment was: “Accepting criticism is…[very relevant] because I don’t think our students…are used to people criticizing them that much.”

Teachers found academic behaviors such as the appropriate use of time management, finding and using resources, and accepting and giving criticism important skills for college readiness. One teacher considered this category extremely important, but the least important among the previous four noncognitive learning categories (self-regulation, self-efficacy, self-monitoring, and interpersonal and social skills). The teacher said, “[This is] extremely important, although I certainly knew a lot of people in my college who never went to class and did quite well. And didn't pay attention, and didn’t participate in instructional activities and discussions.”

Another teacher noted: “Time management is super important [for freshman college students] especially when you have…a two hour break in between classes.” A colleague added:

Taking notes …is really important. You got to figure out your own style…[and learn] how to notate what is important and leave out what is not. Accepting and giving criticism…that's definitely an important skill to have because if you don't take that criticism, if you are not emotionally secure you are not going to improve.
Most of the students recognized the importance of developing academic behaviors and the need to be accountable for their actions as valuable skills for a successful transition to college. One student said: “Because this is all [new] stuff that you have to do on your own…you can’t depend on anyone. It’s all up to you. [Here], you make it or break it…and if you don’t [make it], that’s [going to be] your problem. You are not going to be able to blame it on the teacher.” Another student added, “It's definitely going to be harder but it goes back to your character, and if you really care about being in college, you will want to go to classes.”

Several students identified skills such as patience, participation in instructional activities, time management, and finding and using resources as valued academic behaviors to develop and display at college. One student said: “Effective time management and finding and using resources are probably the most important because you need to be able to manage your time wisely, and I am very bad at that.” In agreement with the previous student, another added: “Effective time management is probably the most important thing on this list. It’s discipline.” During the interview, another student displayed a high level of self-awareness. She had a clear understanding of her physical limitation [not disclosed] and was able to explain the way she currently compensates for her weaknesses with a variety of learning strategies and academic behaviors. She said, “Since I'm sick a lot, I think regular class attendance is not 100% needed. I guess taking notes depends on what kind of learner you are.” She also mentioned time management as another important tool for her to compensate for her excessive absenteeism.

Finally, two other students agreed on the benefit of accepting and giving criticism by saying: “I think the one specific tool that…most people don’t think it is good or they
do not do a lot is giving [and accepting] criticism.” The other student said: “I think giving criticism is kind of easier than accepting criticism…but it’s important to accept criticism too [especially] if the criticism is meant to help you.”

Under the category of noncognitive academic behavior, participants in the study had the opportunity to select the most valuable set of attitudes and behaviors they considered necessary for the students to succeed upon transition to college. The most valuable skills for the counselors were: having effective time management, the ability to find and use resources, attending class regularly, and communicating directly with teachers and advisors. Teachers’ most valued set of skills were: communicating directly with teachers and advisors, attending class regularly, paying attention, accepting and giving criticism, and arriving ready to work. Students valued the following skills: having effective time management, participating in instructional activities and discussions, arriving ready to work, and accepting and giving criticism. Table 4.9 indicates the most valuable noncognitive learning skills for Academic Behaviors listed in order of priorities or value.

Table 4.9

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### Students’ Levels of College Readiness

Counselors and teachers were requested to briefly assess the current levels of senior students’ college readiness using the noncognitive skills included in the conceptual framework guiding this study. One counselor believed that students are not developmentally ready to fully understand the impact of their decision-making due to the student’s lack of development of purpose. The counselor said, “Students go to college because their boyfriend or girlfriend goes there, and that’s pretty common…. I think 50% or less is really being thoughtful about this process, and it’s not their fault necessarily. I think the average student…is not ready to fully engage in college life.”

Another counselor added the lack of exposure to real life experiences as the main factor for students displaying low levels of college readiness based on the five main noncognitive categories (self-regulation, self-efficacy, self-monitoring, interpersonal and social skills, and academic behaviors). She said: “They're 17, 18 years old, and many of them have not experienced…these types of adult…behaviors.” These statements reveal the counselors’ clear awareness of the current low levels of college readiness in this high socioeconomic high school based on the noncognitive skills needed for college readiness.

In alignment with counselors’ perceptions, most teachers agreed about the low
levels of noncognitive skills for college readiness, and believed that the lack of exposure to real world situations contributed to this lack of readiness. One teacher said, “Probably not; because we haven't taken that final step, we haven't pushed them out. Second semester senior year should be work experience…or at the very least as soon as they're done with the AP’s [Advanced Placement testing] they should be out there working.” Another teacher added: “I recognize the fact that there are students…not ready for college, year-13. They need to take a year off … [and] work.” Another educator believed that even if they teach these skills in high school, the skills won’t fully develop until the students get to college. Another colleague said, “I think some do, I think some reach it before senior year, and I think some will not reach it even after they are done with their senior year.”

Students concurred that the majority of them do not have the college readiness necessary for a successful transition to a post-secondary education. One student said, “I don't think everyone has or will. Because some people…don't even do these things now, so I don't know why you would expect them to do it in college.” Three other students responded similarly; all identified the lack of determination, maturity, and development of purpose as possible factors hindering their college readiness. One student’s response was, “I think certain kids who really have that drive are absolutely college ready, but I mean we talked about it in my class today. A lot of kids just don't care.” Another student added, “No. I think there are a lot of people, who are just not mature enough to go off on their own, and I think even when they go on their own, a lot of them stay close to home and never really … learn to be independent.” Another added, “I just don’t think that the majority of the people at school in this day and age actually know what they want to do.
The majority of the people I ask... “What do you want to do in the future? [And] they say “I don’t know.” From the eleven students participating in the study, only one believed that a selected group of students who are currently taking advanced placement classes have mastered all of these noncognitive skills and reached college readiness. He said:

I think so. Because the group I’m surrounded with is a bunch of advanced placement students. I think…they have already mastered these [noncognitive skills]…because most of my friends are taking four, five or six advanced placement classes [and]…they have to learn how to do this…or else they will not be passing those classes.

This student connected the ability to endure a rigorous academic workload with the ability to effectively utilize the noncognitive learning skills of self-regulation, self-efficacy, self-monitoring, and having interpersonal and social skills and academic behaviors to meet their current academic expectations and be considered college ready.

The main purpose of conducting observations during this research study was to witness the direct interactions of students with their counselors and be able to record students’ experiences and behaviors with counselor in hope to identify noncognitive skills. Only one counselor out of the four participating in the study and only three of her senior students agreed to be observed. The findings suggested that the three participants displayed a fair number of the behaviors and attitudes listed in the five major noncognitive categories included in the conceptual framework. The level of noncognitive skills was identified in the students’ willingness to be observed and assessed during their interactions with the counselor to evaluate their college application packages.

Student 1 arrived to the counselor’s room with a well-organized binder, and ready
to take notes. Once the counselor started reviewing her electronic college application
essays and commenting, the student immediately took notes and established an engaging
dialogue with the counselor. Her confidence and the disposition to approach a difficult
task and persevere were identified after receiving counselor’s feedback. With a positive
attitude, she searched for possible options to correct and enhance her application material.
She was grateful for the counselor’s guidance and at the end of the meeting, requested
another appointment to ensure completion of her college application package on time.

Student 2 displayed his levels of self-regulation by self-evaluating the content of
his college essay even before the counselor accessed his electronic college application.
His anticipation was obvious, almost as if he were hesitant about being criticized, but at
the same time displayed the expectation of receiving the counselor’s feedback. He
displayed great communication skills during his well-articulated interaction with the
counselor; his levels of confidence allowed him to accept criticism while holding a pencil
and notebook ready to take notes during their engaging dialogue. This student was clearly
self-driven and goal oriented, expressing his interest in pursuing a career in medicine.

Student 3 also displayed high levels of self-regulation and self-efficacy while he
communicated to the counselor that he had already sent his college applications to all the
colleges of his choice. The counselor’s response was: “Really? So what should we talk
about?” His level of interpersonal and social skills was obvious; he was very engaged and
responsive to the counselor’s suggestions. The counselor discussed the best colleges for
him in order to fit his needs in reference to the impact the new school environment might
have upon his transition.
Emerging Themes

This exploration of students’ and educators’ perceptions about the relevance and impact of noncognitive learning skills on high socioeconomic high school students’ college readiness suggested several emerging themes. The identified emerging themes are: Adult over-involvement (including both parents and educators) in students’ ability to develop effective non-cognitive practices was one identified theme. The role of employment, culture, and preventive factors (i.e., lack of students’ exposure to perform independent tasks with minimum parental supervision, parental over-protection fostering bad academic behaviors, lack of maturity and self-motivation, educational system placing emphasis solely on cognitive skills, lack of students’ disposition to approach a difficult task and persevere, and the disconnection between K-12 and post-secondary systems) were additionally identified as significant components in the development of noncognitive skills.

A shared responsibility. Counselors agreed on the importance having well-balanced parental involvement to help students develop a solid infrastructure of noncognitive skills. They recognized the positive impact of the early development of noncognitive skills in the student and the important role that parents play in teaching these essential noncognitive skills and behaviors at home. Counselors acknowledged that the school system, as an extension of the students’ previous learning at home, needed to continue nurturing and developing these skills even further. In reference to the further development of noncognitive skills in a high school system, one counselor said, “I think it’s absolutely necessary that students develop [noncognitive skills] before they get to college…. I think that starts at home, right? When you are little or even before you enter
the K-12 system everyone has to reinforce that at school and home.”

She added:

I think parents can help a lot by allowing more room [for] their students to develop and become independent, and you cannot start [that during] their senior year…. They have to do that little by little. And I think teachers and schools can do a better job, too, [in implementing]…academic behaviors.

Similarly, another counselor recognized the importance of parental involvement in the development of noncognitive skills. She said, “That’s a huge piece of it. I mean, we have kids here for six, seven hours a day, but for the rest of their lives, they’re outside with their other influences.”

Teachers were in alignment with counselors’ responses, agreeing on the shared responsibility for teaching students both the cognitive and noncognitive skills. They saw this process as a collaborative effort and not the full responsibility of the educators. One teacher said, “I think it's a fifty/fifty [responsibility]. There are a lot of these [noncognitive skills] that can easily be [practiced] in class that have to be enforced at home and vice-versa…. They can be started in the home and then enforced in the classroom. One of her colleagues added, “Well no, we shouldn't be expecting teachers to do everything and even if we did, that’s not going to happen no matter what. So whether we want the teacher to be the only person educating the student, that's not going to be the case. Whether parents want it or not, they are definitely an active part of the student's education.” As one of the teachers stated, this is a process of collaboration from the main sources of mentorship [parents and educators], and should be developed and implemented at early stages and practiced continuously.
**The role of employment in developing noncognitive skills.** During the interviews, counselors and teachers highlighted the importance of senior students finding employment outside the boundaries of their school system. They identified the need for students to experience real life experiences outside the “school bubble” for them to become independent, develop interpersonal and social skills, be more responsible, self-aware, and be able to develop or reinforce their noncognitive learning skills prior to their transition to college.

One counselor said:

Absolutely, I think, [working] contributes to…a lot of different categories because they’re becoming independent, more responsible, more of a team player because they’re working with people, self-aware because they know how to monitor their own money. A job [is] one of those things that if you don’t get [to work] on time, you lose it. It’s not a class that it drops your grade…to kids, money is a lot more serious than grades, so, I think, having a job actually helps.

She added, “[Students ask me], ‘do colleges care if I worked when I was in high school? Does it matter in college applications?’ And I say, ‘It will reflect something else…you’re responsible, you take initiatives, and if you maintain that job, that means you have all those noncognitive characteristics, and colleges are absolutely looking for that.’” One teacher added, “I almost would recommend that they get an after school job. You know because that's going to teach you a lot of these noncognitive skills.”

The analogy between earning money and developing noncognitive skills as a significant incentive for the senior students to engage with, and commit to a task was an interesting and realistic example demonstrating the importance of acquiring these
noncognitive learning skills at work because they are equally applicable in an academic learning environment.

**Culture as an influential factor.** Culture can influence how students acquire and display their noncognitive learning skills. For instance, if students do not express their points of view in culturally expected ways, that doesn’t mean that they lack interpersonal and social skills or they are not self-driven students. During the interviews, one participating student said, “In my country [China]…we are not supposed to be so vocal and answer back, you know…. And if I feel like ‘oh wait I’m not doing this [the same way],’ I think I’m different…[from] everyone else…. And I realize now it’s a good thing.” Apparently this student recognizes the benefit of being unique and confident in her differences. She clearly sees the results of “not doing things the same way as the others” and recognizes that she can still be college ready.

One student, in reference to interpersonal and social skills, indicated that the lack of participation in instructional activities and discussions does not have an impact on college readiness since some students are able to do well academically even without active participation during instructional time. He said, “We all know the Asian stereotype, that Asian kids also get the best grades, so I see that the quietest kids who rarely raise their hands are also getting the best grades. I don’t think participation is usually important.” Clearly, this is a generalization but the student’s comment confirms the influential role that culture can have in the way students learn, display, and adjust their noncognitive learning skills to prepare for college.

One teacher was convinced that if students are able to have a cultural infusion, that means, expand their exposure to experience different cultures (locally and globally)
they will have a better understanding of others’ philosophies, needs, and perspectives. And those empirical experiences could directly contribute to the development of noncognitive learning skills. She said, “If you can travel and gain global learning experience that way, understand their culture, how people think, maybe remove yourself from an academic mindset for a while. You probably would come back and be a lot stronger.” The benefit of this “cultural infusion” will be the development and reinforcement of interpersonal and social skills such as communication skills, accountability, and responsibility, being grateful, empathetic, and respectful of others.

**Preventive factors.** Counselors, teachers, and students were invited to give their opinions about the possible factors preventing students from developing college readiness to sustain the demands of a post-secondary education. The lack of students’ exposure to experiences requiring them to perform independent tasks with minimum parental supervision was something counselors and teachers identified and agreed upon as a possible preventive factor. One counselor responded, “[Even] if the student is academically ready but … has never…been in situations where they have to be independent, think on their own, make decisions on their own, and manage time on their own, then it will be so hard to transition … into the new college environment where [they will be]…forced to do that on…[their] own.” Another colleague believed that parental involvement from certain parents in this high socioeconomic community was sometimes excessive, affirming, “Parents lie to help their students, whether…to get a good grade or to participate in something…. I think parents can go overboard, and [they] are not sending the right message.” This excessive parental involvement contributes negatively
in the student’s development of noncognitive skills such as becoming responsible, accountable, resilient, grateful, empathetic, respectful, and developing a sense of purpose.

Another counselor’s response made reference to lack of maturity and self-motivation as the main possible preventive factors for a successful college transition. She said:

[The lack of] maturity and [not being goal oriented]…those are the…number one reasons to achieve college readiness…[When I ask them] what are your plans [for college] after high school? [They will answer] “I don’t know. I never really thought about it.” I think, it’s internal…there is something about self-motivation…[being] self-reflective, or self-aware, that if they don’t know what they’re good at, they don’t know what they see themselves doing.

She continues by acknowledging the emphasis placed merely on cognitive skills and the lack of attention placed on the equally important noncognitive skills. She stated: “We’re teaching cognitive skills, and…how to read and write essays, but not the other stuff [noncognitive skills]…. I don’t think we do that enough.”

In alignment with previous statements another counselor mentioned the lack of maturity in students as a factor preventing a student’s successful transition to college. She said:

Maturity level is really important. They have to advocate for themselves…. Sometimes, here, the parents can be very overbearing. For instance, I had a [student] whose parents, [insisted]….that I look [only] for [colleges] with an emphasis on Lacrosse. There were a couple of…Division 3 schools that would have taken her as a student in a heartbeat like Chapman, Redlands…[But the
parents said], “No, she’s going to go to a Division 1 school, and that’s the end of
the story.” So she…[decided] to go to a school in Brooklyn, and [I mentioned to
the student]…“That was not the right fit for you”. Brooklyn was not the right
move…[A semester later, confirming the counselor’s prediction], she ended up
transferring to Chapman…. You cannot take a girl from Norman Dee High
School and put her in Brooklyn, unless she’s very special and can handle that.

The student’s lack of maturity, self-efficacy (i.e., being self-driven and goal oriented), her
lack of interpersonal and social skills (i.e., decision-making), and her lack of self-
regulation skills (resilience) were obvious. Perhaps a combination of excessive parental
involvement and unrealistic college expectations combined into a formula for an
unsuccessful transition to college.

Impressions from teachers regarding parental overprotection as a factor
potentially hindering students’ successful college transition were similar to the
counselor’s responses. One teacher noted, “From what I'm seeing…the parents [are] still
coddling. [The student] is their baby and [they] want to indulge him/her…[They] want to
provide…safety and…protect them from the environment. But at the same time that's not
how reality is. When [students] leave…home…[parents] can't always protect them.”

Another teacher identified excessive parental involvement that fosters and promotes bad
academic behaviors. She felt that the extreme parental participation intended to protect
their students directly contributes to the development of a student population that lacks a
sense of accountability and develops a self-granted sense of entitlement. Additionally, the
teacher mentioned the importance of students having the dispositions to develop
noncognitive skills. She said, “The student’s [disposition]…to really be self-aware and
say: ‘I’m going to take responsibility for my actions…I messed up but now I want to fix it’ [is important for successful college transfer].”

In alignment with one counselor’s comments, a teacher mentioned that besides the academic preparation of the student, proficiency in noncognitive skills played a significant role in students’ readiness to transition to college successfully. Another colleague added, “I think no matter how bright [the student] is, there is an [emotional level of readiness]…that can hamper their success if they’re so geared toward getting the right answer only.” Continuing with the identification factors preventing successful college transitions, a different teacher identified students’ lack of responsibility and their lack of a disposition to approach difficult tasks and persevere as other factors hindering students’ success as they confronted new academic demands. He said:

A lot of them are looking forward to skipping class…I have heard many seniors say they are looking forward to not going to class. They don't seem to understand the responsibility of sustaining their knowledge and sustaining the learning. They seem to be missing that self-responsibility and accountability as to why they are even in college, being able to know what [they] are doing there.

Another teacher believed that certain norms or expectations from parents and the current school system had a strong influence on the students’ decision to go to college immediately. In many cases, these expectations forced students to make bad choices based on these pre-set expectations or norms. Some students look forward to the freedom that college offers, without understanding their individual roles and responsibilities in their new context. The teacher said, “I think a lot of times students have this impression that…they have to go to college right after high school because it’s what they’re
supposed to do, and they don’t know why they’re doing it.”

The special education teacher mentioned the lack of students’ exposure and the disconnection between the K-12 system and a post-secondary educational structure as potential factors for students to feel disoriented upon transitioning to a new educational system. He said:

Some [noncognitive skills] may have been mastered and others may not, and I think the reason why…[is] because they haven't had… enough opportunities to work on these skills or because the change in the environment and the structure between the K-12 setting and the college setting has been so different, that it takes a while for them to understand and navigate this new environment.

He added that the biggest difference between both systems was the imposed structure in the K-12 system and the lack of similar structure on the post-secondary system. He continued:

For example in a K-12 system there's an expected time to be there in the morning and a time to leave, and every day is pretty much the same. There's people keeping track of [students] attendance, people will be contacting the [student]…if they see that you're struggling. In college that's not necessarily the case, depending on where you are. It's a much larger environment in terms of population and the size of the campus, and no one is necessarily taking attendance, and no one necessarily keeping track of you on a day-to-day basis.

Some of the noncognitive learning skills that would benefit students as they adapt to their new academic environments are the academic behaviors included in the conceptual framework (i.e., regular class attendance, arriving ready to work, paying attention,
participating in instruction activities, having effective time management, finding and using resources, taking notes, directly communicating with professors and advisors, and accepting and giving criticism), combined with interpersonal and social skills including self-monitoring, self-efficacy, and self-regulation to ensure a successful transition to the college context.

When students had the opportunity to express their opinions about the possible factors preventing a successful transition to a post-secondary education, they mentioned social distractions, lack of motivation, and poor time management as the main hindrances. One student said, “I kind of think it is distractions…some people get caught up in being social and don’t focus on school…. But some people may get caught up in drinking and doing drugs and that definitely ruins, delays stuff going on in your brain.” Another student agreed, adding, “Being a slacker in…high school, failing to acknowledge that you’re going to college and then building those college skills early on is what leads to success…. People say: “We’re doing that when we get to college.” That’s a little late. A third student agreed with his classmates, adding “I think outside…temptations; I guess video games, Facebook…poor time management skills, and if you aren't careful with them, if you don't know how to regulate yourself.” A different student added:

Probably lack of motivation…. Even people who are seniors and just go to their local community college, not for the financial reasons but … [because of] grades, I see them…not trying and so they just…say, “ I'll just go there [community college].” I think definitely it's a lack of motivation and just not finding something that interests you so you won't continue [in] college.
The lack of self-efficacy in a student contributes to a low disposition to approach difficult tasks and persevere, develop a sense of purpose and be goal oriented in order to find direction and commitment.

Another student believed that the lack of exposure to, and familiarity with, a post-secondary learning system had a significant impact on a student’s college readiness, adding that students should have the opportunity to take some college level classes to be exposed to the academic expectation and learn the new college structure, processes, and expectations. He said, “Not taking any…college classes…would really hinder people from succeeding…I know what [to] expect from a college application, but I don’t know what to expect when I walk in on the first day [at college].” Some schools provide students with the opportunity to have a concurrent enrollment at the community college level, assuming that the high school student is academically ready to sustain the workload of a post-secondary context and receive college credit for the class taken.

Students viewed parental involvement as another preventive factor in the student’s decision-making process regarding their college of choice. One student noted:

Parents are preventive. I mean if you really want to go far away and your parents … [won’t let you], you have to stay here. I think a good option is…community college for people that aren’t necessarily ready yet, and I think that’s a good way to kind of have an easier transition.

Parental involvement should be essential in the college decision-making process, but it should be supportive, student centered, and flexible enough for the student to develop and practice self-regulation, resilience, self-efficacy skills such as confidence, perseverance, self-direction, and commitment, and become a self-driven person. As one student said,
“Community college is a good option for people [parents and students] who aren’t ready yet [emotionally, economically, or academically], but it shouldn’t be taken as a preventive factor for the other students who are college ready and capable to successfully transfer to a college of their choice.”

**Summary**

Chapter four presented the findings about the participants’ understanding of the key concepts framing the study: college readiness, cognitive skills, and noncognitive skills. A discussion of the five main noncognitive learning skills categories (self-regulation, self-efficacy, self-monitoring, interpersonal and social skills, and academic behaviors) shaping the conceptual framework was provided, and followed by the identification of emerging themes. The following chapter presents a subjective discussion of the data analysis and study results, providing insights about the research findings, conclusions, and recommendations.
Chapter V: Discussion and Conclusions

The purpose of this study was to explore the perception of students and educators regarding the importance of noncognitive skills for high school students from a high socioeconomic community as they prepared for a successful college transition. While Chapter IV focused on data analysis and the presentation of study results, Chapter V involves a discussion of the study results to provide insights on the research findings.

Using an interpretivist methodology as a guide and grounded theory tradition, the supportive data was collected using semi-constructed interviews and observations. The qualitative data collected from the 21 participants was coded, analyzed, and organized to create a thematic organizational framework. The research study was based on the following main question and sub-questions:

Main research question:

What are the students’ and educators’ perceptions about the relevance and impact of noncognitive learning skills on high socioeconomic high school students’ academic performance when determining their college readiness?

Sub-questions:

c) What are educators’ perceptions and understanding about the relevance of noncognitive learning skills as they prepare students to successfully transition to a higher education system?

d) What are the students’ perceptions about the importance of noncognitive learning skills on their preparation to transition successfully to a higher education system?
Analytic categories were aligned with the study’s research questions in hopes of discovering emergent connections, patterns, and themes. This chapter begins with a discussion of the significant findings regarding the key concepts framing this study (i.e., college readiness, cognitive skills, and noncognitive skills), followed by a discussion of the five main noncognitive learning skills categories contained in the conceptual framework guiding the study: self-regulation, self-efficacy, self-monitoring, interpersonal and social skills, and academic behaviors. A discussion of emergent themes such as shared responsibility, the role of employment, culture, and preventive factors was also included in the chapter to further explore the phenomenon under study.

College Readiness

Per Conley’s definition (2011), college readiness is 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 that offers either a baccalaureate degree or transfer to a baccalaureate program. According to Roderick, Nagaoka, and Coca (2009), gaining access to, and succeeding in, college requires students to have high levels of content knowledge, core academic skills, and a number of non-cognitive skills. In this study, the majority of counselors associated college readiness with the student’s cognitive behaviors (i.e., college preparation classes, internships, grades, and rigorous learning) required to succeed in a post-secondary context. In this study, more than half of the participating adults identified noncognitive skills as an essential component to prepare students for college. Students believed that college readiness was dependent upon their ability to master noncognitive behaviors such as maturity, independence, self-discipline, disposition to approach a difficult task and persevere, good work habits, taking
responsibility, and managing time effectively. The different understandings of college readiness by educators and students was evident through the teachers’, counselors’, and students’ statements provided in chapter IV which highlighted the necessary noncognitive skills and behaviors for a student to be classified as college ready.

**Cognitive Skills**

According to VenLehn (1996), Sedlacek (2004), and Heckman (2008), current educational policies underrate students’ noncognitive abilities by focusing primarily on cognitive skills as the only measure of determining college readiness. These policies place a strong emphasis on standardized tests and measureable outcomes in determining a student’s knowledge (cognitive skills) while completely ignoring his or her socio-emotional proficiency (noncognitive skills). One relevant finding was the counselors’ and teachers’ differing understandings about cognitive skills. Counselors associated cognitive skills with the intellectual abilities leading to a measurable or quantifiable outcome; they relied only on standardized tests to determine students’ academic readiness. In contrast, teachers associated cognitive skills with the ability to think and process information in reference to their students’ learning abilities and performance as demonstrated in class. The teachers’ statements echoed the previously mentioned study of Farrington et al. (2012), stating that the most important aspect for college readiness is not which courses students take or what their test scores are, but how well students perform in those courses, as measured by their high school course grades. Only one of the six teachers linked cognitive skills with measurable and quantifiable outcomes. The majority of students displayed a lack of knowledge about the meaning of cognitive skills when first asked.
As Venezia and Jeager (2013) stated, educators must have a common and clear purpose to improve practice and to help students improve academic performance and achieve college readiness. To successfully assist students in their college preparation, NDHS’s educators must have clear and consistent understandings of the term “cognitive skills” and the appropriate academic applications to better serve the students’ needs and better prepare them for college. NDHS counselors’ and teachers’ current understandings of the term “cognitive skills” creates roadblocks for improving students’ readiness for higher-level education.

The study found that the NDHS counselors and teachers had quite different understandings of the cognitive skills needed for college and career readiness. Student’s cognitive development, particularly in response to Common Core State Standards (CCSS) depends greatly on an educator’s consistent understanding of cognitive skills, how to develop them effectively, and how to assess them. In addition, study results suggest that the NDHS educators would benefit from professional development emphasizing both cognitive and noncognitive skills in order to generate accurate assessments indicating students’ abilities and dispositions as they progress through high school.

Boylan’s study (2009) indicated that when academic advisors expand assessment data with noncognitive information, their ability to focus interventions to help students also increases. Therefore, it will be advisable for administrators and educators to achieve a common understanding about current practices and develop a collective purpose to improve assessment methods that partner cognitive and noncognitive assessments. The
triangulation of students’ assessments will provide an accurate and comprehensive view of students’ academic preparedness to successfully transition to college.

**Noncognitive Skills**

Duckworth et al. (2007) discovered a general lack of awareness and information in the education system about the way noncognitive skills and cognitive intelligence interact to determine students’ academic preparedness. The results of this study were consistent with Duckworth et al. (2007): the majority of teachers participating in the study had a generic understanding of the term noncognitive skills, but little familiarity with the specific skills and behaviors behind the term. In addition, roughly a third of the participating teachers admitted to not knowing the meaning of “noncognitive skills.” Those teachers with a generic understanding associated the term with poorly defined terms such as emotional intelligence, people skills, and other abilities difficult to measure.

According to Vygotsky (1978), many learning issues are the result of a mismatch between educational support systems and the students’ abilities to learn. Significantly, without researcher coaching during this study, NDHS teachers and counselors were inconsistent in their understandings of noncognitive skills. Students, on the other hand, were completely unfamiliar with the term. Therefore, the obvious lack of students’ familiarity with noncognitive skills demands that educators must clearly understand their relevance, in order to expand students’ learning experiences to include noncognitive skill development as they move toward college readiness. We can conclude that educators’ lack of a consistent understanding and awareness about cognitive and noncognitive skills
may well have a significant impact on students’ lack of college readiness at NDHS and elsewhere.

After the researcher provided participants with scaffolding as they attempted to describe noncognitive skills, all counselors and teachers attempted to expand their definitions of noncognitive skills by associating personal experiences with noncognitive skills. These responses demonstrated a basic awareness of, and exposure to, these noncognitive abilities. However, lack of formal information about the term *noncognitive skills* limited the educators’ abilities to define or to apply it to student learning and development. However, even with researcher coaching, students continued to struggle to provide a clear definition of the term. The students’ unclear understanding of the term noncognitive skills confirms the basic need for NDHS educators to provide students with learning experiences and support systems to develop noncognitive skills that will enhance students’ college readiness.

**The role of noncognitive skills.** According to Boylan (2009), most colleges in the U.S. consider noncognitive factors to be as important as cognitive skills to determine post-secondary academic preparedness. In order to expand participants’ familiarity about noncognitive skills, the researcher provided further scaffolding in the form of a visual representation of the conceptual framework displaying the five main categories of noncognitive skills (see Appendix A). Once they were able to use the visual a guide, teachers and counselors found noncognitive skills as important as cognitive skills in the students’ preparation for a successful and sustainable college transition. One significant finding was the counselors’ identification of noncognitive skills as a positive influence to reduce college dropout rates and students’ stress levels. Counselors stated that high
school students’ lack of noncognitive skills can have a negative impact on their readiness to sustain new academic and contextual demands in college. This finding was supported by The California Department of Education (2011) and the Alliance for Excellent Education (2006) research studies stating that students who do not learn the basic noncognitive skills needed to succeed in college or career before leaving high school end up taking remedial classes and are more likely to drop out of college without earning a degree.

According to Conley’s study (2007), the recognition of contextual factors is an important component for students to understand how college operates as a system and a culture. One significant finding in the study was the teachers’ association of noncognitive skills with the contextual transition students will experience in college (i.e., understanding how college operates, how to cope with freedom and distractions, how to self-advocate, and how to manage with less parental involvement). Teachers recognized the importance of the development of noncognitive skills in high school students in order to adapt, self-regulate, and develop the dispositions to approach new challenges without parental supervision.

One significant finding was the educators’ identification of extreme parental involvement and an overly protective learning environment as influential factors negatively limiting students’ ability to develop noncognitive skills (both were characteristics of the climate experienced by NDHS students). The students’ development and mastery of noncognitive skills plays a strong role in their successful transition to a different educational system. The lack of a systemic and cultural understanding of a new educational context can have a negative emotional impact on the students’ adaptability;
they can become alienated, frustrated, and humiliated. When students feel out of context, in many cases they will drop out of college.

**Advantages of noncognitive skills.** All study participants agreed on the positive influence that noncognitive skills have on students’ preparation for college. One significant finding was the identification of noncognitive skills as foundational abilities and life skills to develop and use, not only in an academic context, but also beyond college. The finding echoed research findings by Heckman (2006), Wolfe and Johnson (1995), and Duckworth and Seligman (2005) about the influential role that noncognitive skills have in predicting, not only academic success, but also occupational attainment and better wages.

**Current practices.** According to Pattengale et al. (2000) and Lemons and Richmond (1987), high school graduates are expected to be self-reliant and less dependent on parental support and approval in order to establish a new sense of competence, attain a healthy independence, and develop a sense of belonging, direction and commitment prior to their transition to college. The significant finding was the teachers’ and counselors’ agreement about the lack of accountability and consequences for behavior in students’ current learning environments (both home and school). They associated lack of accountability and behaviors (i.e., continuous absenteeism, not accepting criticism, not self-advocating, being irresponsible, and lacking the disposition to approach a difficult task and persevere) with a level of adult overprotection that nurtured and promoted poor academic behaviors. The recurring parental involvement and over protective learning environment previously identified by educators, was perceived as influential factors negatively limiting students’ ability to develop noncognitive skills.
According to Sedlacek’s study (2004), current practices in the K-12 educational system deprive students of developing noncognitive skills by focusing solely on cognitive learning strategies. A significant finding in this study was the lack of professional development provided by the administration on topics that related to developing the noncognitive skills needed to enhance students’ college preparation. Teachers and counselors participating in the study identified their professional development as focusing solely on the cognitive and measurable aspect of NDHS students’ academic achievement. In addition, some teachers expressed concerns about students being over-tested, adding that standardized tests are not necessarily good measures of their students’ abilities. Their statement confirmed the need for a more accurate and comprehensive methodology to determine students’ academic preparedness to successfully transition to college.

According to Venezia and Jeager (2013), educators who receive professional development are better able to support students’ academic achievements and readiness for college and career as described by the Common Core State Standards (CCSS), but only if they stress the development of strong noncognitive foundations in addition to cognitive skills. To implement this triangulation, professional development focused on implementation of the standards must be supplemented with the necessary professional development focused on noncognitive skill development to enable educators to improve their practices and help all students meet academic college readiness standards.

**Extra support systems.** Study participants identified the lack of extra support systems for counselors and teachers in providing students with satisfactory college preparation. The lack of these support systems was confirmed by two students who identified a limited number of teachers who incorporated some of the noncognitive skills
into their classroom activities. The students mentioned activities such as learning how to self-assess, self-reflect, and self-correct students’ work as examples of teachers’ attempts to incorporate noncognitive skills in their practice.

**Conceptual Framework Findings**

The use of the five noncognitive main categories (self-regulation, self-efficacy, self-monitoring, interpersonal and social skills, and academic behaviors) as a guide for this study contributed to the discovery of significant findings and emerging themes. These five classifications gave participants a framework, and the diagram (see Appendix A) gave participants a visual representation to help them express their perceptions about the relevance of each category and its individual characteristics. In addition, the categories gave them labels they could use to identify the most valuable set of attitudes and behaviors listed under each noncognitive category that supported students’ college readiness. According to social cognitive theory, human learning remains highly dependent on the social environmental context from which it springs (Mischel & Peake, 1982; Zimmerman, 1983). On the basis of these social learning assumptions and constructs, Zimmerman (1989) offered an initial view of students’ self-regulated learning. Among the three major types of influence, self-efficacy is considered a key influence. In addition, two major classes of environmental influence are generalized from social cognitive research and theory: the physical context and the social experience (Zimmerman, 1983). Social cognitive theorists have devoted particular attention to the impact of social and enactive experience on human functioning. The type of environmental influence on student self-regulated learning is the structure of the learning context, particularly such elements as the academic task and setting (Zimmerman, 1989).
**Self-regulation skills.** According to social cognitive theory, human learning remains highly dependent on the social environmental context from which it emerges (Mischel & Peake, 1982; Zimmerman, 1983). Additionally, Zimmerman (1989) stated that the type of environmental influence in reference to students’ self-regulated learning will become the students’ structure of the learning context. Although, counselors, teachers, and students all acknowledged self-regulation skills as important for students’ successful college preparation, the environment that students experience at NDHS does not promote noncognitive skills and, instead, limits the students’ academic, social and emotional learning. Self-regulation skills are especially important for the students’ ability to cope with the new academic expectations in a context where they will have less adult support and more academic and social challenges. Students who display self-regulation skills are active learners who efficiently manage their time and learning experiences in a variety of ways (Schunk & Zimmerman, 1994). The NDHS students identified behaviors such as organizational skills, resilience, and self-evaluation among the time and learning management skills needed to successfully transition from one system (high school) to the other (college). Participants selected resilience, independence in organizing, learning strategies, and self-evaluation as the most recurring and valued noncognitive skills (see table 4.5).

Administrators, counselors, teachers, parents, and students need to understand the benefits of developing a culture of highly motivated and independent students who are able to engage and assess their work while developing a wide range of effective learning strategies as an important part of helping them meet new academic expectations. If students display high levels of resilience, they will be able to persist longer in a new
context with less supervision in spite of increased academic challenges. High socioeconomic students’ success in developing self-regulation skills ultimately depends upon their support systems (at both home and school) as well as upon the students’ abilities and dispositions. Both students and adults need to understand the importance of these noncognitive skills if the students are to reach the essential independence levels required by higher education institutions before they leave for college.

**Self-efficacy skills.** According to Bong (2001), Pajares and Schunk (2001), Zimmerman (2000), and Pattengale and Schreiner (2000), self-efficacy influences the individual’s level of effort applied to perform and persevere on a task. The level of effort affects the level of achievement. Counselors and teachers agreed on the relevance for high school students to achieve self-efficacy skills to be able to adapt to new educational context, and meet the new social, emotional, and academic demands they would encounter. They stated that if students are able to understand their individual roles in the new college environment, they will be able to approach any difficult task and persevere.

Studies by Pajares and Schunk (2001), Bandura and Schunk (1981), Pajares and Miller (1995), Schunk (1991), and Zimmerman and Martinez-Pons (1986) all demonstrate that students with high self-efficacy skills approach difficult tasks as challenges to be triumphed over, rather than as threats to be avoided. Students in this study recognized the need to develop self-efficacy skills such as having positive attitudes and the disposition to approach difficult tasks and persevere. They also cited being confident and being goal oriented as relevant components for them to be successful and highly motivated in college.
We can conclude that students with strong self-efficacy skills willingly engage in challenging tasks, invest greater effort and persistence, and show superior academic performance than those who lack such confidence. The most recurring and valued self-efficacy skills, attitudes, and behaviors selected by all the participants were being self-driven, displaying dispositions to approach a difficult task and persevere, and being able to multi-task (see table 4.6).

The relevance for high socioeconomic students to develop self-efficacy skills is the positive influence it may have on students’ confidence and dispositions to approach a difficult task and persevere. Such skills may also have a positive influence on students’ academic achievement, to help them develop a search for direction and commitment not only at an academic level, but also in facilitating their identification of career choices, life goals, and recreational interests to adapt to any given environment.

**Self-monitoring skills.** Snyder and Gangestad (2000) defined self-monitoring as the ability to regulate behavior to accommodate and adapt to different social situations. The majority of counselors and teachers concurred on the need for students to develop and improve self-monitoring skills. Only one counselor of the four participants, and three students out of the eleven, found self-monitoring skills less important than self-regulation and self-efficacy. Counselors identified maturity as a significant factor in the development of self-monitoring skills, adding that at NDHS the students’ lack of maturity prevented the development of self-monitoring skills.

One significant finding was the connection made by most of the teachers about the need for students to develop self-monitoring skills prior to their transition to new academic systems. They recognized the need for students to modify a variety of learning
strategies, monitor their actions, and correct and improve academic behaviors. They also recognized tolerance for ambiguity as an important factor for students to cope with new academic and social demands.

According to Bransford et al. (2000), students with self-monitoring skills are able to reflect and persevere when presented with a difficult or ambiguous task, they tend to identify and employ a variety of learning strategies, and they have the capability to transfer learning and strategies from familiar settings to new contexts. This study found that the majority of students agreed on the importance of having self-monitoring skills to be able to analyze, reflect, modify, and improve upon the quality of their work upon transitioning to college. Two students believed that they could succeed in college without having self-monitoring skills but qualified their responses by admitting that, “it was helpful to have them.” The most valued noncognitive self-monitoring skills and behaviors selected by all participants in the study were: being self-aware, being self-reflective, having the ability employ and modify a range of learning strategies, being self-corrective, and having tolerance for ambiguity (see table 4.7).

These findings suggest that administrators, educators, counselors, and parents should develop experiences that facilitate students’ learning self-monitoring skills and learning how to regulate their social, emotional, and academic behaviors. Students with these skills will be able to identify and reflect on their successes and failures, and use those experiences to correct and improve their academic behaviors when they get to college. Additionally, if students develop a tolerance for ambiguity, they will have the ability to persevere when they encounter difficulties and transfer learning strategies from one familiar environment (high school) to another (college). Most importantly, they will
be able to adapt to different academic, emotional, and social situations. This is of particular importance for high school students, since they have not fully matured. Their lack of self-monitoring skills may subject them to condemnation and rejection from others, consequently developing anger, anxiety, guilt, a low self-concept, feelings of isolation, and depression. Snyder and Gangestad (2000) suggested that students who are not willing to self-monitor and adjust their behavior accordingly are often aggressive, uncompromising, and insistent with others; conversely, students who are highly responsive to social signals and situational contexts are able to adapt and be more responsive to the academic and social emotional challenges they encounter.

**Interpersonal and social skills.** Dixon (2010) and Maxwell (2002) both recognized the importance of developing interpersonal and social skills as foundational abilities for life and employment purposes. Counselors, teachers, and students unanimously agreed on the significance of interpersonal and social skills, including being respectful of others’ viewpoints, for students’ successful adaptation to new academic and social contexts. A significant finding was the participants’ unanimous identification of the interdependence between interpersonal and social skills, and the noncognitive skills of self-regulation, self-efficacy, and self-monitoring skills in order to be college ready. They agreed on the importance of achieving interpersonal and social skills not only during college, but also for life and employment in general. Teachers and counselors stated that if students are not able to develop interpersonal and social skills, success after college is less likely to occur. Some students also identified these skills as foundational life skills to prepare them, not only for college, but for life in general. Additionally, they identified these noncognitive skills as the employees’ most valued skills during the hiring
process. The most valued noncognitive interpersonal and social skills selected by all participants in the study were: having the adaptability to work under pressure, being a team player, being empathetic, responsible, and respectful (see table 4.8).

Maxwell (2002) stated that students who are able to adapt, are also continuously learning, are emotionally secure and service minded. Mastering noncognitive interpersonal and social skills is of particular importance for this high socioeconomic student population from NDHS, as they will have to adapt to new and different, academic, cultural, and socioeconomic contexts upon their transition to college. One of the biggest challenges for NDHS students will be their ability to interact with, and adapt to, other students from different cultural and socioeconomic backgrounds. A student’s inability to adapt to ambiguity and display empathy will result in failure and lack of engagement with others. Students need to be emotionally secure and able to work under pressure, they need to be team players, and they need to be tolerant in order to interact effectively with others. Additionally, they need to be accountable for their decision-making, be grateful, respectful, and empathetic to better understand other individuals’ perspectives. They need to be able to reflect on those perspectives, and, if necessary compromise to reach a harmonious consensus.

**Academic behaviors.** Farrington et al. (2012), Conley (2007), and Robbins et al. (2004) identified academic behavior skills as observable behaviors that were crucial for students’ academic performance and that were relatively easy to describe, monitor, and measure. The majority of participants agreed on the importance of students mastering academic behaviors, identifying them as those attitudes and strategies necessary for students’ academic performance. One significant finding identified the interdependence
between communication skills and decision-making in combination with self-monitoring skills such as self-reflection and self-evaluation as important and interconnected components in the development of academic behaviors.

Another finding was the agreement between counselors and teachers about the need to implement a stronger and more accountable discipline system for students to help them learn academic behaviors such as accepting and giving criticism, managing their time efficiently, and reducing prevalent absenteeism. In addition the students in this study acknowledged the need to develop academic behaviors and to be accountable for their actions as valuable component of college readiness. The most valuable and recurring skills selected by all participants under academic behaviors were: effective time management, the ability to find and use resources, regular class attendance, and direct communication with teachers and advisors.

**High School Levels of College Readiness**

Counselors and teachers in this study believed that most of the students did not possess the college readiness necessary for a successful transition to a post-secondary education. They identified the lack noncognitive skills such as determination, maturity, and the development of purpose as factors hindering college readiness. Guided by the five main noncognitive categories, counselors and teachers agreed that high school students’ lack of exposure to real life and work experience is a main factor contributing to students’ lack of college readiness. During the interviews, students self-assessed their levels of college readiness and recognized that they lacked it. They also associated the ability to endure a rigorous academic workload with the ability to master noncognitive
skills (self-regulation, self-efficacy, self-monitoring, interpersonal and social skills, and academic behaviors).

Per Conley’s research (2007), students who display noncognitive skills are more receptive to criticism, can cope with content knowledge, and have the intellectual dispositions and mindset to support their post-secondary success. Although, the total number of seniors attending NDHS during the year 2014-2015 was 446, only eleven senior students participated in the study (2.5%). And even a smaller number of students agreed to participate in the observations. Based on the students’ willingness to be observed, analyzed, and assessed during the observations, we can conclude that some students have a fair amount of noncognitive skills already developed.

**Emerging Themes**

The themes that emerged in this study were the following:

- preparing students for college is the shared responsibility of parents and educators;
- the important role of employment in the development of noncognitive skills;
- the role of culture as an influential factor;
- preventive factors such as:
  a. emphasizing only cognitive skills prevents the development of college readiness;
  b. excessive parental involvement leads to lack of maturity and self-motivation which, in turn, hinders readiness for college; and
  c. the lack of alignment between K-12 and post-secondary systems
complicates the development of college readiness.

A shared responsibility. The significant finding was the need for a balanced and less over-protective educational system to develop a solid infrastructure for high socioeconomic high school students in the achievement of college readiness. Educators recognized the importance of a reasonable level of parental involvement as an essential, positive, and influential factor in the students’ developmental growth (cognitively and noncognitively). In addition, the school system was viewed as an extension of the students’ learning previously acquired at home. Teachers and counselors identified a shared responsibility as a process of equal collaboration between educators and parents to provide students with enough learning experiences to develop noncognitive skills and become independent, confident, and emotionally secure individuals.

The role of employment in developing noncognitive skills. Teachers and counselors fully agreed on the essential need for students to be exposed to real life and work experiences outside the boundaries of the high school system (“outside the bubble” protecting students). The benefits of student employment, as addressed by educators, depends on the student’s ability to engage and commit to a task (his or her job), develop interpersonal and social skills (i.e., have communication skills, be service oriented, be a team player and a decision-maker); self-regulate (i.e., be more independent, be resilient, and develop a variety of learning strategies); develop self-efficacy skills (i.e., be confident, have the disposition to approach and overcome a difficult task, be goal oriented and self-driven); self-monitoring skills (i.e., be tolerant of ambiguity and be self-reflective), and academic behaviors such as arriving ready to work, effective time management, and accepting and giving criticism.
**Culture as an influential factor.** Culture was identified as an influential factor in the way students learn, display, and improve proficiency of noncognitive skills. A significant finding was the positive influence that a strong culture can have in the way students develop and display the five noncognitive skill categories included in the conceptual framework. Based on the findings, we can conclude that students who displayed a high level of noncognitive skills viewed their diversity and cultural differences as a positive asset to develop noncognitive skills with distinctive attitudes, behaviors, and techniques to meet college readiness. Educators viewed the students’ exposure to other cultures (referred to by one as “cultural infusion”) as a great contributing factor in the development and reinforcement of noncognitive skills such as having a positive attitude, develop a self-identity, be tolerant, be a team player, become emotionally secure, and be grateful, empathetic and respectful with others.

**Preventive factors.** The current educational system that places emphasis solely on cognitive skills (academic factors) and neglects the equally and influential impact of noncognitive skills (affective factors) in the students’ preparation to achieve college readiness was identified by some educators as preventing successful transitions to college. The lack of similar structures between the K-12 and a post-secondary system was identified as another significant preventive factor. The lack of educators’ professional development and support systems in reference to noncognitive skills to better prepare students was another significant preventive factor.

In addition, teachers and counselors identified the students’ lack of exposure to performing independent tasks with minimum parental supervision as one of the main factors preventing students from achieving noncognitive skills. Excessive parental over-
protection that nurtures students’ bad academic behaviors and promotes high levels of students’ entitlement to break school’s policies (i.e., discipline and attendance), lack of students’ academic accountability, and the lack of administrators’ consistency in enforcing school’s rules and policies to strengthen and improve student’s academic behaviors were also identified. Another factor preventing students from developing noncognitive skills was the lack of students’ maturity, self-motivation, and their lack of disposition to approach difficult tasks and persevere. Students identified the following behaviors as hindering factors to become college ready: social distractions, lack of motivation, poor time management, lack of self-efficacy, lack of exposure to real life experiences, lack of familiarity of a post-secondary context, and parental involvement.

Central Research Question Findings

Answering the central research question (What are the students’ and educators’ perceptions about the relevance and impact of noncognitive learning skills in high socioeconomic high school students’ academic performance when determining their college readiness?) facilitated the development of the theory-driven conceptual framework purposefully adapted to fit the needs and characteristics of the participants in the study.

The set of noncognitive skills included in the conceptual framework were: self-regulation, self-efficacy, self-monitoring, interpersonal and social skills, and academic behaviors. The conceptual framework enabled the development of protocol questions that facilitated the collection of empirical data in order to answer the two central sub questions of the research study.
Central Sub-question 1. *What are educators’ perceptions and understanding of the relevance of noncognitive learning skills as they prepare students to successfully transition to a higher education system?*

We can conclude that educators perceived noncognitive skills as an important component in the students’ preparation for college. Noncognitive skills were perceived as an essential and foundational set of abilities to prepare students, not only for college, but for life beyond college, including future employment. Teachers and counselors found noncognitive skills as important as cognitive skills and acknowledged the positive influence that noncognitive skills have on students’ college and career readiness. They valued the idea of partnering cognitive and noncognitive skills in the students’ preparation to have a more accurate assessment of students’ individual abilities and dispositions. The educators’ statements regarding the importance of noncognitive skill development clearly supports the Common Core State Standards (CCSS) objectives in reference to the generation of students’ data to better inform their academic outcomes and facilitate students’ readiness to fulfill the demands of post-secondary and career expectations. The CCSS are more rigorous than earlier standards, and students will need to know how to approach this educational paradigm; hence it will be increasingly important for students to develop strong noncognitive learning skills such as being independent in organizing, be resilient, and have the ability to self-evaluate their work. They also need to develop a positive attitude and disposition to approach any difficult task and persevere, they need to be goal oriented and self-reflective, and they need to have tolerance for ambiguity, and the adaptability to work under pressure. In addition,
they need to be accountable, be a team player, have interpersonal and social skills, and good academics behaviors to cope with new academic demands.

Educators mentioned the positive influence of noncognitive skills on the students’ ability to control their emotions and stress levels not only in academic settings, but beyond college. Mastering noncognitive skills is an important factor associated with reducing the high rate of college dropouts. In addition, and most importantly, they recognized the foundational need and positive impact for students to develop noncognitive skills to be able to sustain current and new academic, social, cultural, and emotional demands and successfully transition and adapt from one disconnected system to the other.

Central Sub-question 2. What are the students’ perceptions about the importance of noncognitive learning skills on their preparation to transition successfully to a higher education system?

Even without scaffolding students unconsciously related the term noncognitive skills to college readiness. They perceived noncognitive skills as the main influential factor to reach a healthy life, independent of parents and their current school system. Students recognized the importance of having a variety of noncognitive skills to be able to approach any difficult task. They knew they needed to persevere, become self-confident, develop academic dispositions, develop a sense of direction and commitment, and be goal oriented. They needed to be able to monitor their behaviors while displaying empathy, respect, and gratitude. In alignment with educators, students identified noncognitive skills as important foundational skills necessary to prepare them, not only for college, but for life and career expectations. Figure 5.1 provides a graphic
representation of the identified benefits of a potential triangulation of cognitive and noncognitive skills in high school students’ learning.

Data analysis from counselors’, teachers’, and students’ perceptions identified potential benefits in each of the five noncognitive skills categories contained in the conceptual framework. Each category contains a number of potential benefits and outcomes that facilitate students’ understanding of the academic, social, and contextual demands they will encounter after high school.
Recommendations to Educational Leaders

The following recommendations are based on the significant findings collected from educators and students who participated in the study and expressed their opinions about the relevant impact of noncognitive skills on high socioeconomic high school students’ college readiness. The following recommendations will be discussed further: the need for a stronger and cohesive school leadership system, the creation of a culture of shared accountability, the development of a collective awareness about the benefits of noncognitive skills, the implementation of professional development, and the need for a better alignment between the K-12 and post-secondary educational systems.

**Stronger and cohesive leadership.** The compilation of counselors’ and teachers’ concerns regarding current practices indicated that NDHS’s lack of educational leadership, cohesiveness, and a low organizational capacity (capabilities, knowledge, and resources needed to be effective) about noncognitive skills were significant roadblocks to its students’ development of college readiness. Effective leadership and capacity building improvement would demand a shift in the NDHS’s culture characterized by a shared responsibility that requires and promotes collaboration, trust, synergy, integrity, credibility, responsibility, accountability, and inclusion of everyone’s principles and values to create and implement a shared vision.

Implementing change in NDHS current culture will require a stronger and more assertive leadership team to engage all stakeholders to achieve the desired outcome (college readiness), to provide support systems to staff, parents, and students, and to continuously assess and modify professional practice accordingly to better serve the students’ educational needs in hopes to improve college readiness.
Supporting the development of college readiness requires administrators to develop and establish a stronger discipline system, communicate expectations effectively to all staff members, parents, and students, and adhere to the established policies and procedures with integrity, consistency, and assertiveness at all levels of the school system. Leaders, educators, and parents must work in a partnership to enforce discipline policies in a more consistent and cohesive way. Students’ academic accountability and consequences resulting from their poor decision-making should be used as valuable learning opportunities for students to develop noncognitive skills, and learn how to self-evaluate, self-reflect, self-monitor, self-correct behaviors, and become accountable for their mistakes and actions.

A shared accountability. According to Newman, King, and Rigdon (1997), strong accountability can occur internally within a school community. School accountability should not be related only to financial funds or students’ measurable outcomes; it should be viewed as a shared responsibility among administrators, educators, parents, and community to provide meaningful learning experiences to all students. In addressing school accountability, students should not be viewed only as a single digit contributing to the Annual Yearly Progress (AYP) report or Academic Performance Indexes (API). Instead, all stakeholders should become accountable for the students’ college readiness. Educational institutions must provide students with the necessary support systems and learning experiences (cognitive and noncognitive) at all grade levels to ensure a successful post-secondary education or career of choice. Students should be viewed as individuals with rights and responsibilities (socially, morally, and
Academically. Assessments, outcomes, and learning experiences should be used to better determine students’ abilities and dispositions.

In the process of establishing shared responsibility, educational leaders must model expected behaviors. For example, administrators at NDHS should model how to enforce discipline and attendance policies in a more consistent and cohesive way and enable educators and parents to be participants of this collaborative culture conducive to the collective benefit of all students. The facilitation of training, open communication channels, trusting relationships and ethical behaviors with parents and staff members must be emphasized and effectively implemented during professional development. This could facilitate the development of a common plan, identify and modify current practices, and develop a common vision to improve educational outcomes and college readiness.

Develop a collective awareness. Lack of information about college readiness in general, and cognitive, and noncognitive skills in particular was the study’s first relevant finding. Developing a collective awareness among all the school’s educators about the significant benefits when students develop noncognitive skills is an essential step to improve academic, social, and emotional achievement. The Common Core State Standards offer the potential to provide teachers with data (formative assessments indicating needs and dispositions) to target instruction to develop students’ content knowledge and noncognitive skills accordingly to ensure college and career readiness. As Venezia and Jeager (2013) remind us, students achieving college and career readiness in response to the CCSS will depend on teachers receiving reliable data and the necessary professional development for educators to facilitate students’ academic achievement while developing noncognitive foundations and skills.
The importance of braiding the development of noncognitive and cognitive skills together must be properly addressed and effectively communicated to all stakeholders. This should create a shared awareness about the significant impact that noncognitive skills have on the successful students’ preparation to transition to college and increase stakeholders’ disposition to work in partnerships and improve current practices. If administrators at NDHS are able to engage all stakeholders to work toward a common goal, they should be able to create better educational experiences and support systems that will prepare students for future academic and career demands, and will facilitate the students’ transition from high school to college. Successful preparation to cope with new academic, social, and contextual demands will be contingent on students building both their noncognitive and cognitive skills (Boylan, 2008b; Boylan, 2009; Fike & Fike, 2008; Heckman, 2008; Sternberg, 2008; Venezia & Jaeger, 2013).

**Professional development.** Professional development in any educational setting is commonly utilized to continuously improve educators’ instructional and professional practice and, in turn, facilitate students’ academic achievement. In NDHS, advocacy for students’ academic excellence and well-being must be continue to be valued, and nurtured; therefore the development of a balanced partnership among administrators, educators, and parents to meet these goals is essential. If the common vision is to establish a long and lasting partnership among administrators, educators, and parents, educational leaders need to provide professional development and support systems. Professional development systems need to target the concepts of cognitive and noncognitive skills as well as proven best practices for developing those skills in students in order to build capacity among the most influential individuals impacting the students’
educational preparation. This will create parallel understandings and awareness about both the short- and long-term benefits for students when they achieve and practice noncognitive skills (at home and school).

Within this collaborative partnership, techniques on how to enhance students’ noncognitive learning experiences should be explored. Additionally, the development of better academic programs partnering cognitive and noncognitive skills to cope with more rigorous academic standards (such as the CCSS) that require a focus on content knowledge, demands the development of stronger noncognitive skills to cope with current and new academic demands. Providing these high socioeconomic students with learning experiences enabling them to practice independent tasks with less parental or educational supervision is essential. Students deserve to receive an academic preparation based on accurate assessments that are in better alignment with both their cognitive and noncognitive capabilities to be able to respond to postsecondary academic, social, and contextual demands. Using data (Gottefredson & Saklofske, 2009) to partner cognitive and noncognitive skills is crucial to fully understand students’ competences and dispositions in reference to college readiness.

**An alignment between educational systems.** According to Conley (2007), the gaps between the academic expectations of K-12 and a post-secondary education system is a primary reason for the poor preparation of many high school graduates. Similarly, the teachers at NDHS identified significant gaps between the K-12 experiences of their students and the expectations of the post-secondary educational systems they experience after graduation. K-12 and post-secondary institutions need to work together in order to align their expectations, develop similar language to address those mutual expectations,
identify the current needs of both systems and the gaps between them, and suggest potential improvements for better alignment of both systems. Educational leaders must establish a common vision with realistic goals and expectations to be able to identify leadership approaches that can potentially contribute to the development of a professional and collaborative partnership between both systems. This collaboration must be based on the combined professional knowledge and experiences from both institutional systems in order to create student learning opportunities that are in alignment with both student abilities and dispositions and with the mutual expectations of both k-12 and post-secondary systems.

The Alliance for Excellent Education (2006) suggests that in order to prepare students for forthcoming economic demands, major changes in California’s secondary and higher education systems are required. Educational leaders at all levels have a responsibility to provide students with increasingly rigorous learning opportunities and exposure to the expectations they will encounter in post-secondary contexts before their actual transition to a post-secondary education. Educational leaders have an enormous responsibility (morally, socially, and economically) and a direct influence on how our future leaders—our current students—will be academically, socially, and emotionally prepared to lead our nation’s economy. Educational leaders must rethink how they can create lasting and sustainable partnerships between both instructional levels in order to develop a common dialogue and collaborative networks. Leaders need to develop measurable outcomes that are in better alignment with students’ capabilities—both cognitive and noncognitive—that will meet the realistic expectations of both academic systems, and that will promote an effective and sustained impact beyond life in college.
With strong collaborative efforts, educational leaders will be able to understand and identify mutual needs, as well as the strengths and weaknesses from both educational systems. With respectful collaboration and the recognition of individual professional boundaries, they will be able to create transparent, effective, and long lasting benefits for each other that will ultimately have positive impacts on our ever-changing educational system as students prepare to be college and career ready.

**Future Research Study**

The possibility of using noncognitive factors combined with cognitive factors as the foundation for U.S. public education policy may require future research to deal with the ever-growing population of underprepared adolescents and adults entering college. Additional qualitative studies—particularly those looking at different socioeconomic communities—may provide different viewpoints to connect the many processes and influences of noncognitive factors in students’ learning. The empirical data generated by those studies have the potential to create links between the two, currently disconnected educational systems. Perhaps with further research, educators will manage to develop a more complete theoretical model that will represent the diversity of students’ population within the complex K-12 educational system (i.e., charter, public, and private schools). The theoretical model offers the opportunity to identify students’ educational needs, viewpoints, and to create methodologies that can potentially contribute to the development of a professional and collaborative partnership between both systems.

The generation of enough relevant data might also offer educational leaders the opportunity to develop and implement assessment instruments that could become the foundation for new cognitive/noncognitive life skills tests that consider both
noncognitive and cognitive factors to measure students’ academic preparedness. A quantitative study to collect data accompanied with the use of better assessments might be needed to inform quantifiable and measurable outcomes about the way noncognitive skills influences students’ college readiness.

Future research studies may include the adaptation and implementation of this study to other school sites to allow for a generalization of findings with students’ from different socioeconomic population in hopes of creating a comprehensive benchmark about current levels of students’ noncognitive skills and dispositions to better inform educators’ current practices and students’ needs to achieve college readiness. Future research at the middle school level within NDHS school district might help administrators understand educators’ and students’ perceptions, creating a more accurate profile of incoming high school freshmen, and develop learning experiences that support their noncognitive skills development.

**Summary**

Chapter V presented the discussion and conclusions on the students’ and educators’ perceptions about the relevance and impact of noncognitive learning skills in high socioeconomic high school students’ academic performance when determining their college readiness. A discussion of the conceptual framework findings and its five noncognitive categories was included as well as the conclusion of students’ current levels of college readiness.

The study’s significant findings were presented in the emerging themes section (i.e., a shared responsibility, the role of employment in developing noncognitive skills, culture as an influential factor, and preventive factors). The central research question
findings were also included in an attempt to answer the two main central sub-questions and finally, a series of recommendations to educational leaders and a section for future research were provided in hopes to shed light and improve current educational practices.

As this study shows, lack of college readiness in high school students is not the problem; it is only an indicator of other problems and processes within an educational system. If students are not college and career ready, educational leadership needs to understand the reasons behind the students’ inability to fulfill and sustain the expected academic, social, and emotional demands of a post-secondary education system before we can implement solutions.

This study identified problems such as lack of educational leadership, lack of cohesiveness, and a low organizational capacity in combination with current practices solely emphasizing cognitive skills. In addition, educators’ general lack of information and professional development about noncognitive skills, excessive parental involvement leading to lack of maturity and self-motivation, and the lack of alignment between K-12 and post-secondary systems complicate the development of college readiness.

Students deserve quality relations and better support systems. They need adults to help them to develop values and a standard for behavior (noncognitive skills), social competency, autonomy, a sense of purpose, and self-respect. Students need adults who believe in their ability to achieve high standards, and recognize their potential to be contributing members in the community. The hard edge of noncognitive skills is that students must be held accountable when they do not meet the standards (cognitive and noncognitive). When accountability is missing, all standards become meaningless. The protective effect of holding students to high standards is that once they experience
success, they believe they can master future situations and challenges.
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High school students’ and educators’ perceptions about the relevance and impact of noncognitive learning skills on students’ academic performance when determining their college readiness.

**Noncognitive Categories**

- Noncognitive skills: self-regulation
- Noncognitive skills: self-efficacy
- Noncognitive skills: self-monitoring
- Noncognitive skills: interpersonal & social skills
- Noncognitive skills: academic behaviors

**Characterized by a Set of Attitudes, Behaviors, and Strategies**

- Independent in organizing, assessing, and rehearsing information, resilience, self-evaluation, and learning strategies.
- Confidence, disposition to approach difficult tasks and persevere, positive attitude, multi-tasking, development of self-identity, development of purpose, search for direction and commitment, goal oriented, and self-driven.
- Self-awareness, self-reflective, self-corrective, tolerance for ambiguity, and ability to employ and modify a range of learning strategies.
- Team player, decision maker, communication skills, adaptability to work under pressure, accountable, emotionally secure, creative, responsible, grateful, empathetic, and respectful.
- Regular class attendance, arriving ready to work, paying attention, participating in instructional activities and discussions, effective time management, finding and using resources, taking notes, direct communication with teachers and advisors, accepting and giving criticism.

**Cognitive Skills, Current Practices, & Key Content Knowledge**

**College Readiness**
APPENDIX B
CALIFORNIA STATE UNIVERSITY, NORTHRIDGE
NON-COGNITIVE LEARNING SKILLS AND COLLEGE READINESS
INVITATION TO PARTICIPATE IN RESEARCH
EDUCATORS

[Email from Norman Dee High School, Principal’s office to secondary teachers, and academic counselors.]

Dear Teachers and Counselors,

I am writing to inform you about a dissertation study that is being conducted at our site regarding the impact that noncognitive skills might have on students’ learning in preparation for college. Maria C. Santa Cruz, a doctoral candidate and educator at our school is conducting the study as part of the requirements to complete her doctoral (Ed.D.) degree in Educational Leadership and Policy Studies at California State University, Northridge.

The purpose of Ms. Santa Cruz’s dissertation study is to explore the perceptions of high school students and educators concerning the significance and influence of noncognitive skills on student learning while shaping the students’ readiness to successfully transition to post-secondary education.

If you choose to participate in this study, you would be asked to complete a mini-survey and then you might choose to participate in one 30-45 minutes one-on-one interview with Ms. Santa Cruz. Additionally, 4 selected participating students and their designated counselors will be observed for about 25 minutes to collect relevant data that will provide information regarding mutual interactions and behaviors concerning college preparation.

Any personally identifiable characteristics, such as participants’ names or school, will not appear in the study (a pseudonym will be used). Participating in this study is completely voluntary and participants may withdraw at any time.

If you would like to participate, please contact Maria Santa Cruz at msantacruz@bhusd.org alternatively, you may reach her via telephone at xxx-xxx-xxxx.

Thank you in advance for considering participation in this study.

Regards,

_________________________________
Mr. XXXX, School Principal
APPENDIX C

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE
THE INFLUENCE OF NONCOGNITIVE SKILLS ON STUDENTS’ LEARNING AND COLLEGE READINESS.
INVITATION TO PARTICIPATE IN RESEARCH
STUDENTS ONLY

[Email from Norman Dee High School, Principal’s office to senior students.]

Dear Parent and Senior students,

I am writing to inform you about a dissertation study that is being conducted at our site regarding the impact that noncognitive skills have on students’ preparation for college. Maria C. Santa Cruz, a doctoral candidate and educator of our school is conducting the study as part of the requirements to complete her doctoral (Ed.D.) degree in Educational Leadership and Policy Studies at California State University, Northridge.

The purpose of Ms. Santa Cruz’s dissertation study is to explore the perceptions of high school students and educators concerning the significance and influence of noncognitive skills on student learning while preparing students to transition successfully to post-secondary education.

Your son or daughter’s involvement in this study will be required to complete a mini-survey and then she/he might choose to participate in one 30-45 minutes one-on-one interview with Ms. Santa Cruz. Additionally, 4 selected participating students and their designated counselors will be observed for about 25 minutes to collect relevant data that will provide information regarding mutual interactions and behaviors concerning college preparation.

Any personally identifiable characteristics, such as participants name or school, will not appear in the study (a pseudonym will be used). Participating in this study is completely voluntary and participants may withdraw at any time.

Your student’s time investment in this study is greatly appreciated.

If you would like to participate, please contact Maria Santa Cruz at msantacruz@bhusd.org alternatively, you may reach her via telephone at xxx-xxx-xxxx.

Thank you in advance for considering participation in this study.

Regards,

_________________________________
Mr. XXXX, School Principal

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You are being asked to participate in a research study. The purpose of Maria C. Santa Cruz’s dissertation study is to explore the perceptions of high school students and educators concerning the significance and influence of noncognitive skills on student learning while shaping the students’ readiness to successfully transition to post-secondary education.

This research conducted by Ms. Santa Cruz is one of the requirements for completing her doctoral degree (Ed.D.) in Educational Leadership and Policy Studies at California State University, Northridge. Participation in this study is completely voluntary. Please read the information below and ask questions about anything that you do not understand before deciding if you want to participate. The researcher listed below will be available to answer your questions.

RESEARCH TEAM

Researcher:

Maria C. Santa Cruz

Department of Educational Leadership and Policy Studies

18111 Nordhoff St.

Northridge, CA 91330-9265

805-797-2897
PURPOSE OF STUDY

This study will explore the perceptions of students and educators about the importance of noncognitive skills for students’ learning. The purpose of the research study is to better understand the noncognitive readiness of high school students prior to their transitioning to a post-secondary educational system. This data could provide relevant information to educators as they work to improve college readiness and improve post-secondary academic performance, thereby better serving the students’ needs and college aspirations as they prepare for their college transition.

SUBJECTS

Inclusion Requirements

You are eligible to participate in this study if you are an educator or counselor with at least two years of experience in a public high school setting and currently employed by Norman Dee High School.

Time Commitment

This study will involve approximately 30-45 minutes of your time.
PROCEDURES

The following procedures will occur:

Interviews: I will coordinate with you to determine a mutually convenient time to conduct an interview. Then we will meet for about 30-45 minutes to conduct the interview. I will audio record the interview, transcribe it, and analyze the collected data.

Observation (counselors only): I will coordinate with you to determine a mutually convenient time for both you and your student to meet. I will be present in the same room and my only involvement during that meeting will be as an observer. I will be taking notes and no interaction with any of you will be required.

RISKS AND DISCOMFORTS

The possible participant’s risks and/or discomforts associated with the procedures described in this study include: to experience some confusion with the terminology. To minimize the identified risk, I will provide enough background information to clarify any confusion and minimize embarrassment due to the lack of familiarity with terms. This study involves no other risks. There are no known harms or discomforts associated with this study beyond those encountered in normal daily life (i.e., boredom, giving up valuable work time, etc.).

BENEFITS

Subject Benefits

The possible benefits you may experience from the procedures described in this study include increased knowledge and awareness of noncognitive skills as they apply to college expectations about the successful high school student preparation for college.

Benefits to Others or Society
The study results have the potential to provide information leading to a better academic alignment between the K-12 system and post-secondary academic expectations, and to enhance or develop sustainable college and career educational programs to better support high school students with their college readiness preparation.

ALTERNATIVES TO PARTICIPATION

The only alternative to participation in this study is not to participate.

COMPENSATION, COSTS AND REIMBURSEMENT

Compensation for Participation

You will receive a $15.00 gift card from Starbucks after the interview. If you decide to withdraw from the study or are withdrawn by the research team, you will receive compensation for the visits that you have completed.

WITHDRAWAL OR TERMINATION FROM THE STUDY AND CONSEQUENCES

You are free to withdraw from this study at any time. If you decide to withdraw from this study you should notify the research team immediately. The research team may also end your participation in this study if you do not follow instructions, miss scheduled visits, or if your safety and welfare are at risk.

CONFIDENTIALITY

Subject Identifiable Data

All identifiable information that will be collected about you will be removed and replaced with a code or pseudonym. A list linking the code and your identifiable information will be kept separate from the research data.
All unidentifiable information that will be collected about you will be kept with the research data. This will provide the researcher full access to the collected data as he/she develops the study based on grounded collected data.

Data Storage

All research data will be stored electronically on a secure computer with password protection.

Other privacy options:

The audio recordings will also be stored in a secure location, then transcribed and erased at the end of the study.

Data Access

The researcher (Ms. Santa Cruz) and Dr. Kathleen Rowlands named on the first page of this form will have access to your study records. Any information derived from this research project that personally identifies you will not be released or disclosed without your separate consent, except as specifically required by law. Publications and/or presentations that result from this study will not include identifiable information about you.

Data Retention

The researchers intend to keep the research data until the research is published and/or presented and then it will be destroyed.

Mandated Reporting

Under California law, the researcher is required to report known or reasonably suspected incidents of abuse or neglect of a child, dependent adult or elder, including, but
not limited to, physical, sexual, emotional, and financial abuse or neglect. If any researcher has, or is given such information, she is required to report it to the authorities.

**IF YOU HAVE QUESTIONS**

If you have any comments, concerns, or questions regarding the conduct of this research please contact the research team listed on the first page of this form.

If you have concerns or complaints about the research study, research team, or questions about your rights as a research participant, please contact Research and Sponsored Projects, 18111 Nordhoff Street, California State University, Northridge, Northridge, CA 91330-8232, or phone 818-677-2901.

**VOLUNTARY PARTICIPATION STATEMENT**

You should not sign this form unless you have read it and been given a copy of it to keep. **Participation in this study is voluntary.**

You may refuse to answer any question or discontinue your involvement at any time without penalty or loss of benefits to which you might otherwise be entitled. Your decision will not affect your relationship with California State University, Northridge. Your signature below indicates that you have read the information in this consent form and have had a chance to ask any questions that you have about the study.

**I agree to participate in the study.**

[If any part of the study is audio or video recorded, include a check box or signature line for consent to be audio and/or video recorded.]

For example:

___ I agree to be audio recorded
___ I do not wish to be audio recorded
___ I agree to be video recorded

___ I do not wish to be video recorded

___________________________________________________  __________________
Participant Signature                              Date

___________________________________________________
Printed Name of Participant

___________________________________________________  __________________
Researcher Signature                              Date

Maria C. Santa Cruz, Researcher
You are being asked to participate in a research study. The purpose of Maria C. Santa Cruz’s dissertation study is to explore the perceptions of high school students and educators concerning the significance and influence of noncognitive skills on student learning while shaping the students’ readiness to successfully transition to post-secondary education.

This research conducted by Ms. Santa Cruz is one of the requirements for completing her doctoral degree (Ed.D.) in Educational Leadership and Policy Studies at California State University, Northridge. Participation in this study is completely voluntary. Please read the information below and ask questions about anything that you do not understand before deciding if you want to participate. The researcher listed below will be available to answer your questions.

**RESEARCH TEAM**

**Researcher:**

Maria C. Santa Cruz

Department of Educational Leadership and Policy Studies

18111 Nordhoff St.

Northridge, CA 91330-9265

805-797-2897
PURPOSE OF STUDY

This study will explore the perceptions of students and educators about the importance of noncognitive skills for students’ learning. The purpose of the research study is to better understand the noncognitive readiness of high school students prior to their transitioning to a post-secondary educational system. This data could provide relevant information to educators as they work to improve college readiness and improve post-secondary academic performance, thereby better serving the students’ needs and college aspirations as they prepare for their college transition.

SUBJECTS

Inclusion Requirements
You are eligible to participate in this study if you are a current senior student enrolled in Norman Dee High School.

Time Commitment
This study will involve approximately 30-45 minutes of your time.

PROCEDURES
The following procedures will occur:

Interviews: I will coordinate with you a convenient time to conduct the interview; then we will meet for about 30-45 minutes to conduct the interview. I will audio record the interview, transcribe it, and analyze the collected data.

Observation: I will coordinate with your counselor a convenient time for both of you to meet. I will be present in the same room and my only involvement during that meeting will be as an observer. I will be taking notes and no interaction with either of you will be required.

**RISKS AND DISCOMFORTS**

The possible participant’s risks and/or discomforts associated with the procedures described in this study include: to experience some confusion with the terminology. To minimize the identified risk, I will provide enough background information to clarify any confusion and minimize embarrassment due to the lack of familiarity with terms. This study involves no other risks. There are no known harms or discomforts associated with this study beyond those encountered in normal daily life (i.e., boredom, giving up valuable work time).

**BENEFITS**

**Subject Benefits**

The possible benefits you may experience from the procedures described in this study include increased knowledge and awareness of noncognitive skills as they apply to college expectations about the successful high school student preparation for college.

**Benefits to Others or Society**
The study results have the potential to provide information leading to a better academic alignment between the K-12 system and post-secondary academic expectations, and to enhance or develop sustainable college and career educational programs to better support high school students with their college readiness preparation.

**ALTERNATIVES TO PARTICIPATION**

The only alternative to participation in this study is not to participate.

**COMPENSATION, COSTS AND REIMBURSEMENT**

**Compensation for Participation**

You will receive a $15.00 gift card from Chipotle after the interview. If you decide to withdraw from the study or are withdrawn by the research team, you will receive compensation for the visits that you have completed.

**WITHDRAWAL OR TERMINATION FROM THE STUDY AND CONSEQUENCES**

You are free to withdraw from this study at any time. **If you decide to withdraw from this study you should notify the research team immediately.** The research team may also end your participation in this study if you do not follow instructions, miss scheduled visits, or if your safety and welfare are at risk.

**CONFIDENTIALITY**

**Subject Identifiable Data**

All identifiable information that will be collected about you will be removed and replaced with a code or pseudonym. A list linking the code and your identifiable information will be kept separate from the research data.
All unidentifiable information that will be collected about you will be kept with the research data. This will provide the researcher full access to the collected data as he/she develops the study based on grounded collected data.

**Data Storage**

All research data will be stored electronically on a secure computer with password protection.

Other privacy options:

The audio recordings will also be stored in a secure location, then transcribed and erased at the end of the study.

**Data Access**

The researcher (Ms. Santa Cruz) and Dr. Kathleen Rowlands named on the first page of this form will have access to your study data. Any information derived from this research project that personally identifies you will **not** be released or disclosed without your separate consent, except as specifically required by law. Publications and/or presentations that result from this study will not include identifiable information about you.

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**I agree to participate in the study.**

[If any part of the study is audio or video recorded, include a check box or signature line for consent to be audio and/or video recorded.]

For example:

___ I agree to be audio recorded

___ I do not wish to be audio recorded
___ I agree to be video recorded

___ I do not wish to be video recorded

__________________________________________________________________________
Participant Signature                                                                       Date

__________________________________________________________________________
Printed Name of Participant

__________________________________________________________________________
Parent’s Signature                                                                       Date

__________________________________________________________________________
Printed Name of Parent

__________________________________________________________________________
Researcher Signature                                                                      Date

__________________________________________________________________________
Maria C. Santa Cruz, Researcher
I. Pre-interview Session: Introduction/Background

Welcome and introduction:

Good morning/afternoon/evening. Thank you for taking the time to talk with me today.

Before we begin the interview session, I’d like to give you the opportunity to read and sign the Consent to Participate in Research.

Purpose of the interview:

As we discussed, this interview is intended to collect information for a research study that will explore the perceptions regarding the significance of mastering non-cognitive learning skills when developing college readiness in high school students, to transition successfully to college.

Timing:

Today’s interview will last approximately 30 to 45 minutes. Are there any questions before I get started?

II. Interview Session

Main Questions

1) What is your understanding of the phrase, “This student is college ready”?

2) What is your understanding of the term cognitive skills?

3) As an educator, please describe your understanding of the term noncognitive skills?
a) Are you teaching your students these skills? Why or Why not?

b) [if yes] How are you teaching them?

4) In your opinion, what is the role of the noncognitive skills in preparing students to transition to college?

5) What are the advantages or disadvantages for high school students to develop noncognitive skills?
   
a) Why do you feel that way?

6) In your educational context, what are the current practices used to prepare students for a successful transition to a sustainable post-secondary education?

7) As an educator, how relevant do you believe it is for your students to apply self-regulation skills such as independent organization skills, self-assessing techniques, resilience, and the development of learning strategies to successfully transition to college?
   
a) Why?

b) Which self-regulation skills characteristic do you value the most for a student to be able to succeed in college? You need a list here. Perhaps hand them a 3 x 5 card with the skills listed. Of the skill listed on this card, which do you feel are the most important? Why?

8) How important is it for your students to develop self-efficacy skills such as confidence, disposition and perseverance, a positive attitude, develop self-identity, be able to multi-task, goal oriented, and self-driven to successfully transition to college?
   
a) Why?
b) Which self-efficacy skills do you believe are the most valuable for a student to be able to succeed in college?

9) How relevant is it for your students to develop self-monitoring skills such as self-awareness, being self-corrective, having a tolerance for ambiguity, and the ability to employ and modify a range of learning strategies to successfully transition to college?
   a) Why?
   b) Which self-monitoring skills do you believe are the most valuable for a student to be able to succeed in college?

10) How significant is it for your students to develop interpersonal and social skills such as being a team player, being an effective decision maker, having good communication skills, adaptability to work under pressure, accountable, emotionally secure, creative, responsible, grateful, emphatic, and respectful to successfully transition to college?
   a) Why?
   b) Which interpersonal and social skills characteristic do you value the most for a student to be able to succeed in college?

11) How significant is it for your students to have the following academic behaviors to successfully transition to college? Regular attendance, arrive in class ready to work, pay attention, participate in class discussions, effective time management, direct communication, and able to accept and give criticism.
   a) Why?
   b) Which academic behaviors do you value the most? (Again…maybe a card with a list.)
12) Do you think senior students fully reach college readiness in their last year of school?  
   a) Please explain your answer.

13) What are the possible factors preventing some students from successfully preparing and sustaining the demands of a post-secondary education?  
   a) Do you know anyone who experienced being under-prepared for college? Tell me about what happened with her/him.  
   b) Do you know the reasons why she/he wasn’t able to successfully transition?  
   c) If you could give advice that person to avoid those problems, what would you say?

14) How much support or professional development do you receive to help students to prepare to be college ready?  
   a) If any, how often? And in which specific subject matter?

15) If you could change anything about the current practices preparing students for a successful and sustainable college education, what would you change?  
   a) What will be the impact of this change on their preparation? And why?

**Closing Questions**

I would like give you a final opportunity to help us examine these issues. Before I end today, is there anything that I missed? Do you have anything else to add at this time? Have you said everything that you wanted to say but didn’t get a chance to say? Have you shared everything that is significant about these interactions with me? If there’s anything else that you recall after our interview session, I invite you to share it by contacting me.

**III. Post-Interview Session: Debriefing and Closing**
Thank you for participating in today’s interview session. I appreciate your taking the time and sharing your ideas with me. I also want to restate that what you have shared with me is confidential. No part of our discussion that includes names or other identifying information will be used in any report or document. Finally, I want to provide you with a chance to ask any questions that you might have about this interview. Do you have any questions at this time?
I. Pre-interview Session: Introduction/Background

Welcome and introduction:

Good morning/afternoon/evening. Thank you for taking the time to talk with me today.

Before we begin the interview session, I’d like to give you the opportunity to read and sign the Consent to Participate in Research.

Purpose of the interview:

As we discussed, this interview is intended to collect information for a research study that will explore student perceptions regarding the significance of developing non-cognitive learning skills to prepare in high school students to successfully transition and sustain post-secondary academic demands.

Timing:

Today’s interview will last approximately 30 to 45 minutes. Are there any questions before I get started?

II. Interview Session

Main Questions

1) What are your plans after high school graduation? [ice breaking question, broad and open]

2) Are you planning to attend college?
   a) What is the feeling of knowing that you will be going to college very soon?
b) Do you have any colleges in mind yet?

c) Do you know what the steps are you need to take to go to college?

d) What are you doing to get ready for the big change?

3) Are you ready for the change/transition of schools?
   a) Why? Tell me more....

4) What is your understanding when someone says, “that student is ready and prepared to go to college?”
   a) Are you ready?

5) How familiar are you with the term “noncognitive skills”?
   a) Any idea of what they are or what the term means?
   b) How about cognitive skills?

6) In your school, what type of support are you getting to prepare you to a successful transition to college and be able to keep up with the future academic workload?
   a) Do you think you will be ready for the challenge?

7) As a senior high school student, how relevant is for you to have self-regulation skills?
   ....let me give you some examples of these behaviors and strategies: have good organization skills, self-evaluation techniques, be resilient (strong will), and develop learning strategies to successfully transition to college?
   a) Why? Again...I think cards with lists of these terms would be useful here.
   b) Which self-regulation skills characteristics do you think are the most needed for college?

8) As a senior high school student, how relevant is for you to apply self-efficacy skills such as confidence, disposition and perseverance (be ready to try your best), display a
positive attitude, develop self-identity, be multi-tasked, goal oriented, and self-driven to successfully transition to college?

a) Why?

b) Which of these self-efficacy skills do you think are the most needed for college?

9) As a senior high school student, how relevant is for you to apply self-monitoring skills such as self-awareness, being self-corrective, have tolerance for ambiguity, and the ability to employ and modify a range of learning strategies to successfully transition to college?

a) Why?

b) Which self-monitoring skills do you think are the most needed to succeed in college?

10) As a senior high school student, how relevant is for you to apply interpersonal and social skills such as being a team player, decision maker, have good communication skills, adaptability to work under pressure, accountable, emotionally secure, creative, responsible, grateful, emphatic, and respectful to successfully transition to college?

a) Why?

b) Which interpersonal and social skills do you think are the most needed to succeed in college?

11) As a senior high school student, how relevant is for you to have the following academic behaviors to successfully transition to college? Regular attendance, arrive ready to work, pay attention, participate in class discussions, effective time management, direct communication, and able to accept and give criticism.

a) Why?
b) Which academic behaviors do you think are the most needed to succeed in college?

12) Do you think senior students fully reach college readiness in their last year of school?
   a) Please explain why or why not.

13) What are the advantages or disadvantages for a high school student to develop noncognitive skills?
   a) Why?

14) What are the possible obstacles for students to successfully prepare for and sustain the demands of college?
   a) Do you know anyone who experienced problem in college? Tell me about what happened?
   b) If you had the opportunity to give advice to that person, what would your advice be?

15) If I ask you to do a self-evaluation of your current levels of noncognitive skills, can you mention some of the skills you currently have? [display the conceptual framework with the noncognitive categories as a visual aid for students]

Closing Questions

I would like give you a final opportunity to help us examine these issues. Before I end today, is there anything that I missed? Do you have anything else to add at this time? Have you said everything that you wanted to say but didn’t get a chance to say? Have you shared everything that is significant about these interactions with me? If there’s anything else that you recall after our interview session, I invite you to share it by contacting me.
III. Post-Interview Session: Debriefing and Closing

Thank you for participating in today’s interview session. I appreciate your taking the time and sharing your ideas with me. I also want to restate that what you have shared with me is confidential. No part of our discussion that includes names or other identifying information will be used in any report or document. Finally, I want to provide you with a chance to ask any questions that you might have about this interview. Do you have any questions at this time?
APPENDIX H

COGNITIVE SKILLS, CURRENT PRACTICES, & KEY CONTENT KNOWLEDGE

NONCOGNITIVE SKILLS: SELF-REGULATION
Ability to reach the essential independence levels required by colleges and be able to organize, self-evaluate, and rehearse new information upon transition to a different learning system.
Ability to engage and assess their work while developing a wide range of learning strategies to sustain and fulfill new academic expectations.
Displaying high levels of resilience, students will be able to persist longer in a new context with less adult support and more academic challenges.

COLLEGE READINESS
Students understand college expectations and courses, can cope with the content and context knowledge, and successfully enroll in college without remediation classes. These students do well on cognitive tests and have the noncognitive skills needed to fulfill and sustain a post-secondary education (Conley, 2007; Engstrom & Tinto, 2008).

NONCOGNITIVE SKILLS: ACADEMIC BEHAVIORS
Master communication skills and decision-making in combination with self-monitoring skills to develop and improve current academic behaviors.
Ability to accept and give criticism, manage time efficiently and reduce absenteeism.
Ability to be accountable for their actions and self-advocate.

NONCOGNITIVE SKILLS: SELF-EFFICACY
Ability to adapt to a new educational context and sustain the new social, emotional, and academic demands and understand their individual roles in their new college environment.
Ability to develop a positive attitude and disposition to approach a difficult task and persevere, being confident, goal-oriented and highly motivated to be successful in college.
Willingness to engage in challenging tasks, invest effort and persistence, and show superior academic performance.

NONCOGNITIVE SKILLS: SELF-MONITORING
Ability to regulate current social and academic behaviors, identify and reflect on successes and failures, in order to correct and improve.
Ability to tolerate ambiguity, to persevere and transfer learning strategies from one familiar environment to another, and to adapt to different academic, emotional, and social situations.
Ability to respond to social signals and situational context. Students are able to adapt and be responsive to any academic and social emotional challenges.

NONCOGNITIVE SKILLS: INTERPERSONAL & SOCIAL SKILLS
Ability to adapt to ambiguity to engage and interact with a diverse population of students.
Emotionally secure, service minded and continuously learning.
Ability to work under pressure, to be a team player and tolerant in order for them to interact with others.
Accountable for their decision-making, grateful, respectful and empathetic understanding of other individuals' perspectives.