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THE STUDY AND COMPARISON OF THE LEVEL OF MOTIVATION,
ATTRIBUTIONAL STYLE, LOCUS OF CONTROL, AND CAREER INDECISION
BETWEEN BLACK AND WHITE 9TH GRADE SUBURBAN STUDENTS

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Counselor Education
in the College of Education
at the University of Central Florida
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ABSTRACT

The purpose of this study was to investigate the difference between Black and White 9th grade suburban students in regard to career indecision and certainty, and to determine what relationship exists between career indecision/certainty, motivational level, locus of control, and attributional style. The sample size of this study was 95 ninth grade students from a Seminole County high school in the state of Florida. Some of the demographic variables taken into account for this study were student socioeconomic status, involvement in special programming at school (i.e. Exceptional Education, or Advanced Placement), parental education level, and parental occupation. The data in this study was collected through the use of the Career Decision Scale (CDS), Children's Attributional Style Questionnaire-Revised (CASQ-R), Children's Nowicki-Strickland Internal External Locus of Control Scale (CNISE), and the Five Item Polarized Motivation Scale.

The results of this study came as a result of the use of an ANOVA and Mann Whitney test, as well as a series of simple linear regression analyses. The ANOVA and Mann Whitney test determined if there was a difference in career indecision/ certainty level based on race. The linear regression analysis compared the variables of career indecision/certainty, motivation level, attributional style, and locus of control to uncover any predictive relationships. Post hoc analyses were also conducted to determine if the variables of motivational level, locus of control, attributional style, and career indecision/certainty are predictors for race.

The results of the data indicate that there is no statistical significance between race and career indecision between Black and White students. Also the results uncovered the only predictive relationships among the variables existed between career certainty and motivation, career indecision and attributional style, and locus of control and attributional style. The post hoc analyses uncovered that race cannot be predicted by any of the variables in this study. This study is exploratory in nature and should be replicated with the use of a larger sample size to further explore this phenomenon.

This dissertation is dedicated to my mother Winnifred L. B. Johnson. She has been my strength and light. I am who I am today because of my mother's love, guidance, and wisdom. I love you mommy! This is also dedicated to the loving memory of my father Bernard J. Johnson. Lastly, this is dedicated to my brother Ryan D. King (you are the best brother a girl could have)!

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CHAPTER ONE: INTRODUCTION

Background

An achievement gap exists in the United States creating a divide between minority and majority students as seen through test scores and college retention rates (Thernstrom & Thernstrom, 2004). It is the responsibility of educators to provide students with the tools needed to be successful in school and ensure students are receiving services which meet their specific needs. Additionally, in an effort to understand student needs educators must be proactive in response to the decisions made by congressional policy makers. In the state of Florida through House Bill 7087 congress has approved legislation which will require 9th grade students to declare majors upon entering high school. This new legislation will have a major impact on student's career decisions and post secondary education planning.

Professional School Counselors (PSCs) are charged with providing career education to students as part of a comprehensive guidance program (Hatch & Bowers, 2002). High school students are suffering from indecision where career is concerned (Lounsbury, Hutchens, & Loveland, 2005), and there may be many factors contributing to this indecision. Additionally, Black students in particular have perceived barriers to career exploration (Constantine, Wallace, Kindaichi, 2005). Taking the circumstances of the achievement gap, the current legislation, and the research conducted on career indecision in students it is imperative for PSC's to have a clear knowledge of the current state of students concerning career. The knowledge gained by professional school

counselors can be used in an effort to design programming to meet the needs of students under pressure to make career related choices.

This study is an investigation of the level of career indecision in Black versus White 9th grade suburban students. This study will also examine the relationship between the variables of motivation, attributional style, locus of control, and career indecision to assess if there is any correlation between the variables in an effort to understand the factors which interact and influence career indecision in high school students.

Career Education

Career education has undergone scrutiny and changes due to influences from the debate over vocational education reform, which subsequently resulted in identifying that educators have a responsibility to increase students' career possibilities (Hyslop-Margison, 2000). The American School Counseling Association (ASCA) National Model for School Counseling Programs identifies career as one of three domains for student development in the foundation of the model (Hatch & Bowers, 2002). However, a schism exists between the developed standards, identified counselor duties, and the actual activities of PSCs (Foster, Young, & Hermann, 2005). This divide may partially explain why students have a lower level of career decidedness throughout their school years.

Over the course of development for students from middle school until the 12th grade there is very little movement towards an increase in career decidedness

(Lounsbury, Hutchens, & Loveland, 2005). Additionally, Black students experience career indecision due to perceived barriers related to race and discrimination issues (Constantine, Wallace, Kindaichi, 2005). The barriers that have been identified by Constantine and colleagues (2005) for Black students are surrounding career paths and parental or familial supports. In order for PSCs to service these students properly the issue of career indecision in Black students needs to be measured and the factors which may influence career indecision need to be identified to see the relationships which may exist. This study has identified motivation, attributional style, and locus of control as factors which may relate to the level of career indecision in a student.

Motivation

Career indecision cannot be decreased without identifying other factors with which it may be related such as motivation. Defining, measuring, and explaining the construct of motivation has been difficult for researchers (Seifert, 2004). Motivation has many variables, and for the purpose of this research is defined as the act of participating in something or performing a task because there is a desire in the individual to do so (Richmond, 1990).

Attributional Style

Attributional style or how students perceive any failures or successes incurred in performing tasks, or is explained by Causal attribution theory (Weiner, 1986) through the paradigms of internalization of failure, and the externalization of success. According

to Weiner (1986) one has the tendency to believe that successes are the result of outside or external factors, and failures are attributed to internal factors. PSCs must have dialogues with students as they work through career exploration related tasks so that they can overcome internalization of the failure and promote the internalization of the successes.

Locus of Control

Locus of control can be explored through the literature addressing choice because this is a factor that may be influencing career decision making. It has been stated that when students feel they do not have a true choice then they experience a lower level of motivation (Reeve, Nix, & Hamm 2003). By providing Black students with viable career choices PSCs may change their locus of control thus increasing these students, motivation and decreasing indecision surrounding career.

Theoretical Foundation

There are two foundational theories for this study, Social Cognitive Career Theory (SCCT) by Lent, Brown, and Hackett (2002), and Gottfredson's Theory of Circumscription, Compromise, and Self-Creation (Gottfredson, 2002). Student motivation is a construct that has numerous variables (Martin, 2003) and needs a number of theories in which to explore and explain the construct (Seifert, 2004). Because motivation is multifaceted it has been framed as a variable in this study, and other factors such as attributional style, and locus of control are being examined in

addition. More than one theory is necessary to explore and explain the above mentioned factors. Other theories consulted to explore the variables of motivation, attributional style, and locus of control are career self-efficacy theory, attribution theory, and self-worth theory as informed by Seifert (2004).

Social Cognitive Career Theory

Lent, Brown, and Hackett's Social Cognitive Career Theory (SCCT) (2002) was developed from the seminal ideas in Bandura's Social Cognitive Theory (1986). Examining career as a cognitive endeavor which is influenced by social interactions and perceptions on the part of individuals is helpful for school counselors working with under-served students. SCCT addresses the idea of barriers to career due to societal influences (Lent, Brown, & Hackett, 2002). Barriers could include many things, and for minority students who make up a large number of under-served students, it has been identified that lack of parental supports, as well as discrimination are factors which create perceptions leading to career indecision (Constantine, et al. , 2005). Through the use of SCCT professional school counselors can construct more meaning behind the reasons students are lacking healthy career development, thus informing practice.

Gottfredson's Theory of Circumscription, Compromise, and Self-Creation

Albert and Luzzo (2002) have identified that there are perceived barriers to career in adolescent students. The development of the ideas of barriers could be explained by the use of Weiner's Attribution Theory (1986), which purports that

individuals assign meaning to events in life. The meaning assigned to each event then grows into a belief held by that individual in response to certain issues (Weiner, 1986), in this instance career. When taking the idea of attribution into consideration it lends to the basic tenets of Gottfredson's theory. Gottfredson postulates that individuals go through certain stages of career development. In the circumscription stage a child would begin to see the barriers to certain career paths based on societal ideals, which could include gender roles, race, socio-economic status, or any other number of factors. Children attribute meaning to events and circumstances as they work through the process of circumscription. After beginning the process of eliminating possible career paths individuals move into a place of compromise where they begin to examine what types of career paths are left for them to explore (Gottfredson, 2002). Once an individual develops an idea of possible career paths they move into a stage of self-creation where they begin to identify and see themselves in a particular career track (Gottfredson, 2002).

Gottfredson's theory lends itself to be used with under-served students because it addresses how students have developed their foreclosed sense of career. The more options that are eliminated by societal influences the less choice an individual will perceive they have, and this results in a lack of motivation on the part of the individual because it is perceived that there is no real choice (Reeve, et al., 2003) which is linked to an external locus of control. The foreclosure described above is a hurdle in need of crossing by school counselors, and Gottfredson's theory aids in understanding the origins of the mentality of under-served students.

Career Self-Efficacy Theory

Because of the role of the variables motivation, attributional style, and locus of control, it is important to utilize career self-efficacy theory. Career self-efficacy theory allows the richness of SCCT to be seen because it further explains the variable of self-efficacy expectations in the model of SCCT (Betz & Hackett, 2006).

Attribution Theory

Additionally, attribution theory melds well to SCCT and Gottfredson's theory because it uncovers causal beliefs and how these beliefs are used to attribute meaning to events (Albert & Luzzo, 2002). By uncovering these meanings the barriers and perceptions surrounding these barriers can be further explored.

Self-Worth Theory

Self-worth theory explores the issues of student ability and effort. When students put in a high level of effort and experience success, it is a motivator for the student and connotes high ability; to the contrary when a student puts in a high level of effort and experiences failure it is shameful and connotes low ability (Seifert, 2004). These ideas aid in explaining students' level of motivation. If Black students perceive barriers to career, they may put forth less effort. In putting forth less effort towards career exploration due to feelings of external control, Black students may experience less success in exploring career which in turn according to the theory will result in lower self-worth and a lack of motivation. The use of SCCT, Gottfredson's Theory of

Circumscription, Compromise, and Self-Creation, Career Self-Efficacy Theory, Attribution Theory, and Self-Worth Theory could provide the tools to assist in understanding the relationship between motivation, attributional style, locus of control, and career indecision.

Study Rationale and Significance

The purpose of this study is to assess the level of career indecision in Black versus White 9th grade students and examine the relationship between the variables of motivation, attributional style, locus of control, and career indecision to assess if there is any correlation between the variables in an effort to understand the factors which interact and influence career indecision in high school students. Professional School Counselors need to be aware of the needs of students surrounding career to ensure the career education curriculum is sufficient to serve all students and prevent exacerbating the affects of the achievement gap.

Black students are falling behind as the achievement gap increases (Thernstorm, & Thernstorm, 2004). The playing field needs to be equalized as educators make an effort to eliminate the gap existing between minority students and their majority counterparts. The demographics in American schools are characterized by a higher number of Black students than educators who are Black or who can relate to Black students (Wilder, 2000). Freeman (1999) stated that cultural differences and feelings of not belonging have led to a decrease in the success levels of high achieving Black students. Another area of concern is the fact that more Black students have a desire to

attend college than those who actually make it to college (Freeman, 1999). Additionally, many Black students are the first in their family to attend college, which presents other challenges (Freeman, 1999). Black students need connections which foster motivation and could perhaps increase career decidedness.

Across cultures teachers perceive motivation as directly linked to a student's potential risk for unemployment (Hufton, Elliott, & Illushin, 2003). Adolescent students have a responsibility to become productive members of the future workforce. In order for this to happen they must learn how to have a healthy identification with career and how to explore career.

The process of career exploration seems to be stalled by students in different ways. For Black students, exploration is stalled by feelings of indecision surrounding career due to decreased parental support and perceived barriers on the part of the student (Constantine, et. al., 2005). The perceived barriers experienced by Black students may be directly connected to issues surrounding motivation, attributional style, and locus of control because of the conundrum of choice. Motivation exists when one feels he or she has a true choice to make (Reeve, et. al., 2003) or an internal locus of control. Due to Black students' perceived barriers which are possibly related to attributional style they may not feel they have a true choice to make in reference to career. Thus, a lowered sense of motivation could result in high levels of career indecision. The purpose of this study is to assess the level of career indecision in Black versus White 9th grade students and examine the relationship between the variables of motivation, attributional style, locus of control, and career indecision to assess if there is any correlation between the variables in an effort to understand the factors which interact and influence career

indecision in high school students. Identifying students with low levels of motivation, negative internal attributional styles, and external loci of control and exposing true viable choices, may allow PSCs to decrease career indecision in students. However, before these steps can be taken the phenomenon needs to be defined, and the relationships which exist between the factors need to be identified.

Research Questions

The research questions examined by this study will be:

1. Is there a difference in career indecision/certainty between Black and White 9th grade suburban students?
2. What relationship exists among motivation, attributional style, locus of control, and career indecision?

Research Null Hypotheses

The hypothesis developed from the first research question is:

Hypothesis 1: There is no difference in career indecision in Black and White 9th grade suburban students.

The hypotheses developed from the second research question are:

Hypothesis 2: There is no correlation between motivation level and attributional style.

Hypothesis 3: There is no correlation between motivation level and locus of control.

Hypothesis 4: There is no correlation between motivation level and career indecision.

Hypothesis 5: There is no correlation between attributional style and locus of control.

Hypotheses 6: There is no correlation between attributional style and career indecision.

Hypothesis 7: There is no correlation between locus of control and career indecision.

Operational Definitions

There are key terms, and theoretical constructs which have been defined for this study.

Black. For the purpose of this study Black will be defined by the self-report of the participants.

White. For the purpose of this study White will be defined by the self-report of the participants.

Suburban. For the purpose of this study suburban is a residential area outlying a city in this case Orlando.

Motivation. For the purpose of this study motivation is the act of participating in something or performing a task because there is a desire in the individual to do so (Richmond, 1990).

Attributional Style. For the purpose of this study attributional style is the level to which children tend to attribute positive events to factors outside of themselves (external) and to view the causes of those events as inconsistent over time (unstable) and situation specific (specific).

Locus of Control. For the purpose of this study locus of control refers to whether or not a child believes that reinforcement comes to him or her by chance or fate (external locus of control) or because of his or her own behavior (internal locus of control). Locus of

control in children is important because a number of studies have shown that it is related to several other behaviors and attitudes including some involving academic achievement.

Career Indecision. For the purpose of this study career indecision is the amount of uncertainty surrounding career exploration.

Assumptions of the Study

This study was based on five major assumptions:

1. There is a potential difference in the level of career indecision experienced by Black versus white students.
2. Potential relationships exist among the variables of motivation, attributional style, locus of control, and career indecision.
3. Aforementioned assumed potential difference in career indecision between Black and White students can be explained by the relationship between motivation, attributional style, locus of control, and career indecision.
4. The sample size of students needed for the study is attainable from the population at a suburban high school in Seminole County.
5. The race reported by students in this study is accurate.

Limitations of the Study

One limitation of this study is the parental consent process. Those students who are able to get their forms signed and turned in may have other commonalities which

may hinder the researcher from truly understanding the phenomena this study sets out to define. Another limitation is this researcher's dependence on school district approval to gain access to the school it may shape the procedures of this study in such a way that it changes the outcomes of the data. For example, the students selected to participate may not be truly representative of the population intended by the researcher, and this prevents randomization of the population sample and could decrease internal validity by compromising differential selection.

Summary and Conclusion

In this chapter, the foundational ideas and theoretical constructs for this study were explored. Many issues were explored such as career education, career indecision, and the perceived barriers Black students experience to career exploration. In addition motivational level, attributional style, and locus of control, were reviewed as well as how these variables may be related to the issue of career indecision. The theoretical foundation was introduced, along with the rationale and significance of the study. The research questions and null hypotheses were presented, and operational definitions were provided to increase the understanding of this study's focus. In addition, assumptions and limitations were explored.

The next chapter will fully explore the literature which influenced and informed this study. Other chapters to follow will outline the research methodology of this study, results and analysis, and discuss the findings of this study. Implications and areas for future research will be provided for the advancement of this research.

CHAPTER TWO: LITERATURE REVIEW

A History of Career Counseling

The purpose of this quasi-experimental study was to define the phenomena of career indecision in Black versus White students, and assess the differences which may exist in the area of career indecision. The career counseling movement has been shaped by numerous historical factors which are presented in this section. Much of the literature exploring the development of career counseling does so in relation to the factors which have shaped the growth of the United States as a country, for example war and legislative acts. However, in this study it is important to bring the historical perspective of Blacks during the growth of career counseling. A full understanding of the issues of access and involvement of Blacks in career counseling development is necessary, as well as a historical context for the unique experience of Blacks concerning career education in order to understand the present day context and rationale of this study on the difference of career indecision in Black students as compared to their White counterparts. This section will provide a description of the commonly known events which have shaped career counseling, framed in the context of the black experience in the United States.

The career counseling movement has been traced back to the 1850's through the work of Vernon G. Zunker in his career counseling textbook entitled, Career counseling: Applied concepts of life and planning, 6th ed. Zunker recounts how industrialism was on the rise in the United States, and through the influence of people such as Francis Galton, Alfred Binet and V. Henri, G. Stanley Hall, James Cattell, and

John Dewey the idea of careful focus on the individual began to develop (Zunker, 2002). This is what was occurring for the majority of individuals in the United States, but what was the reality for Blacks? While the progressive ideas of Dewey were being developed and touted in the area of education, and the thought of being centered on students was novel and debated (Sadker & Sadker, 2005), Blacks were reeling from the Reconstruction movement, and their recent emancipation (Ciment, 2001). In the late 1800's Blacks were still considered second class citizens and even though Black males were given the right to vote, Black people overall were denied rights and access to the things that were inherently made available to Whites (Ciment, 2001). Take into consideration the situation of Blacks in southern states in reference to career in the 1860's when the Black Codes were developed to govern the new freed population. The Apprentice Laws basically stated that any freedman under the age of 18 who was not being provided for by a parent was to be forcibly apprenticed, and if they escaped their apprenticeship they were to be caught and forced to continue on as an apprentice or face imprisonment. Freedmen could be punished under this law, and they were indentured until the age of 21 if they were male and 18 if they were female (Ciment, 2001). These oppressive laws set the stage for a lack of opportunities for Blacks in the area of career development due to having no true choices or options. As the era of Reconstruction ended in the late 19th century Blacks fled to the west and left their careers as sharecroppers and apprenticeships behind in search for new opportunities (Ciment, 2001), at the same time in the career movement there was a focus on the study of human abilities and the concept of mental measurement was emerging to the forefront (Zunker, 2002). Individualism, assessment, and measurement impacted the

career guidance field. This literature review will explore how it was experienced by Blacks in the United States.

Prior to the measurement movement in career guidance in the early 1900's Black votes were controlled and Jim Crow ran rampant in the south (Ciment, 2001). It was during this time that segregation laws were being developed furthering the ever increasing divide between Blacks and Whites (Ciment, 2001). It was said by W.E.B. DuBois that Blacks had to struggle with the duality of being Americans, and being Black (Gates & West, 2000). The 1896 decision of Plessy v. Ferguson subjected Blacks to segregation in a "separate, but equal" America, which was separate, but not equal (Ciment, 2001). At a time when career guidance programs were emerging as separate entities in high schools with programs developed by pioneers such as George A. Merrill, and Jesse B. Davis (Zunker, 2002), many Blacks were subjected to sub par schools with little resources.

In career guidance Frank Parsons became known as the individual who brought order and created a system which remains to be the underpinning of career education today (Zunker, 2002), however, this was also a time of increasing divide for those in the Black community from the society of their majority counterparts. The career counseling movement was further sparked by the National Conference on Vocational Education in 1910 where the idea of having school guidance personnel was promoted as being the new wave of developing career interest of students, and from this movement what is now known as the National Career Development Association was founded (Zunker, 2002). Additionally, the work of Hugo Munsterberg, an industrial psychologist who explored the concept of psychological testing and how it relates to industrial

employment began to shape the measurement movement (Zunker, 2002), which had a direct impact on American Blacks.

Francis Galton was one of the first to study human abilities gleaned from the work of his cousin Charles Darwin (Parker, 1995). Galton's work introduced the idea of ability being matched to genetics and descent which sets the stage for the idea of intellectual inferiority based on hereditary factors (Parker, 1995). The precursory events which lead to the development of what is now known as intelligence quotient testing was the work of Kraepelin and Ebbinghaus who influenced Wilhelm Wundt's work in constructing standardized procedures as a model for developing standardized tests (Zunker, 2002). Wundt's work was foundational for the work of James Cattell who created the first mental test, and immersed himself in the study of discrimination tests as measures of judgment and intelligence pioneered by Galton (Zunker, 2002). These events all lead to the construction of the first intelligence test by Alfred Binet and Theophile Simon, the Binet-Simon scale. Later Binet through his work at Stanford University developed what is now known as the Stanford-Binet intelligence quotient test (Zunker, 2002). This test was adapted by Lewis Terman and used in a way not intended by Binet as a measure of intelligence rather than a tool to assess when one was not mentally able to care for themselves (Blanton, 2000; Parker, 1995). This led to the criticism of the intelligence test due to the voices of people such as journalist Walter Lippmann who believed the tests to be racially and ethnically skewed (Blanton, 2000; Parker, 1995). Intelligence testing has long been debated as being culturally biased against Blacks and other minorities (Blanton, 2000). This was the advent of eugenics

and the popularity of intelligence testing to classify ones place in society and career capabilities.

In a time when World War I was looming and the armed services needed a way to classify and train soldiers. The army used the Alpha and Beta test developed by Robert Yerkes to classify recruits for the war effort, and these test resulted in immigrants scoring lower than native recruits, and black recruits scoring lower than immigrants (Parker, 1995). The Alpha and Beta tests which were created for the classification efforts during the war by Robert Yerkes were made available for all counselors after the war efforts ceased (Zunker, 2002). However, the test was more a measure of education level rather than racial superiority as was thought by those who subscribed to eugenics (Blanton, 2000). This thought that Blacks were lacking in intelligence compared to Whites became seminal for the later works on differences in racial intelligence such as the *Bell Curve* in the 1990's (Parker, 1995).

The use of testing to classify recruits and the availability of assessments to counselors launched into a push for testing and assessment as a tool for career education and it was around this time that Edward K. Strong Jr. created the first interest inventory (Zunker, 2002). Despite the limiting effects it had on career education, assessment became the cornerstone of career counseling, and created biases which disregarded experience and human development (Zunker, 2002). This limitation was felt significantly by Black Americans who were delegated to lower rung jobs such as janitorial work, and made to stay in a place of subservience (Ciment, 2001).

Blacks migrated to the North to escape the oppressive hold of the Southern states and to seek opportunities to explore new vocational paths. However, they would

soon find that the hold of racism would leave them on the sidelines of industry and vocational opportunity (Ciment, 2001). The legislative acts such as the Smith Hughes Act in 1917 which created a federal grant for nationwide vocational education programming, and the George –Dean Act of 1936 encouraged career education in the United States (Zunker, 2002), however, in a segregated environment where Blacks were held in low regard, it is likely that these acts may have done little to advance vocational education for American Blacks. The Great Depression soon ravaged the nation; however, according to Ciment (2001) Blacks did not experience the effects in the same way as Whites. Blacks were already experiencing poverty, and during the Great Depression were the last to be hired and the first to be fired in the workplace (Ciment, 2001). To assist with the effects of the Great Depression the U.S. Employment Service was created through the Wagner-Peyser Act of 1933 (Zunker, 2002). As career guidance developed through the 1930's other ethnic groups such as Jewish people developed vocational services for their people (Zunker, 2002), but this researcher found nothing documented about these types of services in the Black community.

The black community however, did benefit from the work of Franklyn D. Roosevelt and the New Deal. It was under the New Deal that job opportunities began to open up, and with the influence of the First Lady Eleanor Roosevelt blacks in American began to gain momentum in the area of civil rights and furthering their education (Ciment, 2001). It was during Roosevelt's first term that the Federal Council on Negro Affairs was formed, and this council had a special interest in increasing the opportunities for Blacks under the New Deal (Ciment, 2001).

Parallel to these events in Black history, major occurrences were happening in the career counseling movement. Edmund G. Williamson guided the directive counseling movement with the publication of his 1939 book entitled *How to Counsel Students*. The programs of the New Deal created opportunities for many in America, and it was necessary for people to have guidance in the process of pursuing career paths. This approach to counseling became the standard until Carl Rogers influenced the movement with his person-centered approach to counseling. At the time of Rogers's work *Counseling and Psychotherapy* in 1942 the United States was one year into World War II. The economy was booming and the slump of the Great Depression was finally behind America with unemployment falling down into the single digits (Ciment, 2001). With all that was happening with the war effort Rogers's ideas were not as widely accepted due to the needs of the United States military (Zunker, 2002). World War II created a need for classification of soldiers as was needed in World War I, however, this time around the military elected to create a division of testing created the Army General Classification Test (AGCT) (Zunker, 2002). The difference with the testing process in the army of World War II was the use of the test results to place recruits into counseling programs geared towards maximizing their potential as indicated by the AGCT (Zunker, 2002). These counseling programs evolved to transition programs for veterans according to Zunker (2002). The efforts of the army after World War II served as a booster for the career guidance movement, and much like the civil rights movement of the Reconstruction Era, post World War II was a time of a new civil rights movement for black Americans (Ciment, 2001).

After World War II the efforts of Blacks during the war and the sentiment of human rights and civility led to a more accepting racial environment in the states (Ciment, 2001). Although the racial tensions lessened some, Blacks were still regarded as being less intelligent than White due to the classification systems used in the army (Ciment, 2001), and the testing movement was once again on the rise in the career counseling movement (Zunker, 2002). Post World War II many people began to enroll in college to pursue a post-secondary education. Due to the number of people enrolling in college the need became even stronger for a way to determine how successful one would be in college and assist in the major/career selection process (Zunker, 2002). Taking the lead from the measurement movement the American College Testing Program (ACT) and College Entrance Examination Boards became tools to assist career counselors with aiding clients in career paths and major selections in line with skills and interest (Zunker, 2002). This use of testing was strengthened with the passing of the National Defense Educational Act in 1958. The passing of this act created a tight bond between career education and the testing movement (Zunker, 2002). It was also during these post World War II times that desegregation was a hot topic in the United States. The year before the passing of the National Defense Educational Act, President Dwight D. Eisenhower sent troops to Little Rock, Arkansas in an effort to ease tensions surrounding the desegregation of Central High School (Ciment, 2001). As the career counseling movement experienced an influx of people into higher education, Blacks in the United States were consumed with the birth of the Civil Rights Movement (Ciment, 2001). College Campuses were not just a place for learning and developing oneself for

a future career when it came to Black students; it was a place of protest and sit-ins in many southern states (Ciment, 2001).

Zunker (2002) describes the 1960's as a time of unrest and upheaval in the United States and highlights how this led to a broader scope in career guidance, which included a more humanistic existential approach. This was due to the influence of the mental health counseling movement and theorist such as Albert Ellis and Carl Rogers who seminal work *On Becoming a Counselor* debuted in counseling education circles at this time. Career counseling theory was becoming more developed addressing developmental stages and transitions between those stages, as well as personality types, work environmental factors, and decision making skills (Zunker, 2002). Many government actions also shaped the movement of career counseling during these times such as the laws enacted to protect youths in the work environment, the Economic Opportunity Act, and the Vocational Education Act of 1963 which lead to funding guidance services in the school setting from primary to post secondary schools (Zunker, 2002).

During this time of educational and vocational opportunity Blacks in the United States continued to fight for civil rights under the guidance of revolutionary minds such as Martin Luther King Jr., and Malcolm X (Ciment, 2001). There was a major movement towards acquiring equality which led to the Freedom Rides and riots with one of the most memorable being the Watts riots after the passing of the Voter Rights Act in 1965 (Ciment, 2001). Blacks were looking for the same opportunities afforded to the majority population in the United States and this led to the idea of Black Nationalism and the birth and rise of the Black Panther Party in 1966 (Ciment, 2001).

The 1960's were a time of change and struggle for many Americans (Zunker, 2002; Ciment, 2001), however, many of the battles were still ahead of Black Americans who were seeking equality in education and opportunity (Ciment, 2001). As the career counseling movement witnessed the advent of career education, an answer to the concern of youths not being properly prepared for the workforce (Zunker, 2002), Blacks in America were still in the court rooms of the United States legal system fighting for the right to go to schools with equal resources and supplies as White students even if it meant busing and unrest (Ciment, 2001).

The 1970's brought about the infusion of "Tech-Prep" programs into high schools. And there were more acts on the part of Congress to move career development forward such as the National Occupational Information Coordinating Committee (NOICC) in 1976 which was developed to organized and diffuse occupational information on the national level and coordinate those efforts on a state level through the State Occupational Information Coordinating Committees (SOICC) (Zunker, 2002). In Black America the Civil Rights Movement had ended with the deaths of the major leaders of the time, and Blacks in the United States were fighting other battles for equality in education and economics, but never again was it as permeating as the actions of the Civil Rights Movement (Ciment, 2001).

Desegregation cases continued to be fought well after the 1990's, and other issues such as affirmative action came to the forefront as debatable in the United States (Ciment, 2001). The affirmative action debate began in the 1960's born from ideas such as President Lyndon Johnson's who in his 1966 speech at Howard University expressed,

“You do not take a person who has been hobbled by chains and ... bring him up to the starting line of a race and then say ‘you are free to compete with all others’ and still justly believe you have been completely fair.”

The affirmative action debated quickly became a hotbed of discontent due to bastardized versions of the program which called for quotas and led to misconceptions about the qualifications of Black Americans versus their majority counterparts (Ciment, 2001). The debate of affirmative action continues today never fully recovering from the negative feelings surrounding intentions during the early stages of implementation (Ciment, 2001).

This debate continues at a time when multiculturalism became a top priority in the counseling profession. There was a new era of career counseling shaped by the legitimizing of the counseling profession (Zunker, 2002), and the establishment of counseling organizations such as the American Counseling Association, which has tried to address not only issue regarding career, but multiculturalism and respect for differences in the workplace and society.

It is important to understand the struggles experienced by Blacks in the United States, and how these struggles paralleled the progressive movement of career education. This is not to create excuses for any differences in Blacks and Whites level of success economically or otherwise, but merely to understand the current state of Blacks in America when it comes to education and career advancement, and to provide a the true historical context of the Black race during the career movement. Currently, there is a disturbing trend when it comes to Blacks in America concerning education

which is born out of segregation and inequality, and this trend has been labeled the Achievement Gap.

The Achievement Gap

Chronicling the history of Blacks in America it seems although many strides were made in education and career counseling, Blacks had many barriers to overcome. These barriers set up a scenario where Blacks have fallen behind their majority counterparts. When considering the testing movement in America Blacks experience a lag behind their White counterparts until the 1970's, but then in the late 1980's the gap increased and has done so until the present (Haycock, 2001; Thernstrom & Thernstrom, 2004). In 1994 a book entitled the *Bell Curve: Intelligence and class structure in American life* was written by Hernstein and Murray which stated there was scientific proof Whites were superior to Blacks due to their achievement levels on intelligence test. These ideas were not new, but for them to so strongly resurface in these times shows the deep running undercurrent of assumptions about Blacks and achievement. Fast forward to the United States in the new millennium, achievement is increasing across the board for all students; however, there is a clear gap in achievement between Blacks and Whites (Dervarics, Pluviose, 2006; Haycock, 2001; Hoffman, Liagas, & Snyder, 2003; Jacobson, Olsen, Rice, & Sweetland, 2001; Lee, 2004; Ogbu, 2003; Thernstrom & Thernstrom, 2004). The remaining question is "What is the cause of the gap in achievement experienced in the United States?" There are those who postulate the cause is unequal access for Blacks due to racial inequality (Thernstrom &

Thernstrom, 2004), wealth and economics is labeled as a culprit (Orr, 2003), Black intelligence levels (Hernstein, & Murray, 1994), and Black culture (Ogbu, 2003) all labeled as culprits for the gap in achievement.

According to the results of a 2003 study done for the National Center for Education Statistics (NCES) entitled “Status and Trends in the Education of Blacks”, Black students are dropping out of school at a higher rate than their White counterparts, and although Black students are taking more academic courses, they are still behind Whites in the number of academic credits earned, and have more vocational credits than Whites. In addition, the NCES report shows Black students are less likely to take advanced math courses than Whites, less likely to take advanced language courses than Hispanics, and less likely to take Advanced Placement (AP) classes than both White and Hispanic students. These statistics speak to the preparedness of Blacks for postsecondary education. Blacks are completing college at a higher rate (Hoffman, Liagas, & Snyder, 2003), however, Blacks are still completing at a lower rate than White students on average (Haycock, 2001; Hoffman, Liagas, & Snyder, 2003). The gap between Blacks and Whites persists in the instructional faculty in post secondary education as Whites are the higher proportion of full and associate professors than Black counterparts. Additionally, in the workforce Blacks lead in unemployment in every education level when compared to Whites and Hispanics, and have less managerial and professional employment opportunities than Whites (Hoffman, Liagas, & Snyder, 2003). The statistics show there is an imbalance; however, it is not certain what has caused this imbalance. Some subscribe to the idea of racial inequality being the culprit for the

educational gaps between Blacks and their White peers (Thernstrom & Thernstrom, 2004).

The case for inequality is not a new one. American schools have been under scrutiny since the days of segregation about the conditions in predominantly Black schools versus schools in predominantly White areas (Haycock, 2001). This phenomenon is highlighted by works such as *Savage Inequalities: Children in America's schools* by Jonathon Kozol (1991), and has shined the light on the exodus of quality teachers to more affluent schools, and the lack of materials and resources, financial and human in inner-city schools. The discussion of economic and resource related inequalities in schools leads to addressing the issue of wealth and economics in the Black community as a whole.

Wealth is also a factor in the argument for inequality (Orr, 2003). Orr (2003) postulates children are experiencing a gap in achievement due to the lack of wealth in their homes and communities. Wealth is defined by Orr (2003) as economic, cultural, and human capital. Orr (2003) believes that the socio-economic status of an individual is not as telling as their wealth because wealth determines resources and takes in to account the assets versus the liabilities. Two people could have the same income level, and one individual is a pay check away from poverty due to how extended they are financially. Also, a person could have money, but lack cultural capital or human capital to gain acceptance into the higher social circles which could afford them better educations and better career opportunities (Orr, 2003).

The argument of wealth related inequalities begs for more of an investment in the public school system and impoverished communities, but it leaves some questions still

unanswered concerning the gap in Black and White achievement. If the playing field is equal Blacks and Whites should perform at the same level. However, in the 2003 work of John U. Ogbu in the Shaker Height community Blacks experience the same level of affluence as Whites and have access to the same educational resources Black students are still under performing. This phenomenon is also found in the city of Montclair, New Jersey where the social and educational playing fields have appeared to be leveled between Blacks and Whites (Funderberg, 2000). What makes this even more disturbing is the preponderance of underachievement in Black students versus other minority students (Thernstrom & Thernstrom, 2004). Although Hispanic students are viewed as being effected by the achievement gap as well, they are not achieving as poorly as Black students in all of the various settings in which Black students are underachieving (Wood, 2003). Understanding the achievement gap cannot be summarized by a simple argument of resources; there appear to be other factors at work which are feeding the schism between the races in the area of achievement.

The argument of Black intelligence level is one which has not been given much merit in the eyes of educational researchers (Wood, 2003). There are arguments about biases which are inherent in the tests used to determine I.Q. (Intelligence Quotient) (Ciment, 2001), but it appears the case is more complex than just the examination of standardized and intelligence testing (Woods, 2003). Another hypothesis being explored is the culture of Black students and how it inhibits achievement. Ogbu's 2003 ethnographic study revealed many disturbing trends in the thought patterns of Black students in the affluent Shaker Heights neighborhood. These same results are supported by reports of the conditions of Black students in Montclair, New Jersey.

According to Funderburg (2000) "...despite their parents' financial success and advanced degrees, many black children are still testing lower than whites..." (p. 26). It seems Funderburg and Ogbu have uncovered an amotivational syndrome in Black students which Ogbu (2003) coins as the "low effort syndrome". This particular syndrome is when middle class Black students put little or no effort into their schoolwork because they feel it is the job of the school or teacher to keep them motivated and have no internal factors which are spurring them on to learn (Funderburg, 2000; Ogbu, 2003). The phenomenon also encompasses the thoughts of student perception of what it means to be successful and student who succeed are "acting White" (Funderburg, 2000; Ogbu, 2003). This disturbing thought process leads to what Ogbu describes as the "Black leaning style" which is characterized by poor study habits and inattentiveness towards academics at school and at home (Ogbu, 2003).

It is hard to know what the true cause of the achievement gap may be, but research studies demonstrate a gap does exist. Despite the fact that over the past few years all learning has shown gains, it is still apparent that there is a major difference between Black and White student achievement levels. Knowing school is the basis for future achievement in the area of career which leads to factors concerning the lifestyle of an individual (i.e. community, and level of wealth), it is imperative that career be explored properly and in an effective way for all students so the gap in achievement is not perpetuated in career exploration and decision making. In order to explore career properly career development theory should be consulted.

Theories of Career Development

There are numerous theories of career development, however, for the purpose of this study the three major theories of career development consulted are Social Cognitive Career Theory, Gottfredson's Theory of Circumscription, Compromise, Self-Creation, and Career Self-Efficacy Theory. This study examines career indecision and the differences in career indecision between Black and White students. This literature review presents theories addressing the specific issues surrounding Blacks and career development.

Social Cognitive Career Theory

SCCT has its birth in the concepts of Bandura's Social Cognitive Theory (Gibbons & Shoffener, 2004), which shows a shift in focusing on cognitive factors concerning behavior (Lent, et al., 2002). The realization that cognitions are important in the development of career has led to people having a more active role in the process of career exploration and choice due to their ideas surrounding career (Lent, et al., 2002). There are three major components to SCCT, self-efficacy, outcome expectations, and personal goals (Lent, et al., 2002). This theory is important in studying Black students and career exploration because it examines the variable of barriers to career (Lent, et al., 2002), and understanding these barriers and how they may differ in White students could be helpful in understanding how a gap may exist in the level of career exploration and readiness in Black versus White students.

The component of self-efficacy is defined by Lent and colleagues as "...a dynamic set of self-beliefs that are specific to particular performance domains, and that interact in a complex way with other person, behavior, and environmental factors" (p. 262) and it shaped by four sources which are personal performance accomplishments, vicarious learning, social persuasion, and physiological affective states (Bandura, 1997). It is believed according to Lent and associates more success leads to higher self-efficacy and less success lowers self-efficacy. It is also important to note that self-efficacy is a concept which exists when placed in reference to a particular behavior or activity and does not stand alone as a trait (Betz & Hackett, 2006).

Outcome expectations according to Lent, Brown, and Hackett are "personal beliefs about the consequences or outcomes of performing particular behaviors" (p.262). Outcome expectations are formed before a person engages in the activity and are the person's cognitions on how they think their actions may shape the results of a situation (Lent, et al., 2002). There is a connection between self-efficacy and outcome expectations, however, the difference between the two is the perception of what results may be, as in the case of outcome expectations as opposed to the reinforcement of how ones behaviors shapes those results which could be considered to be self-efficacy (Lent, et al., 2002).

Goals are defined by Bandura (1986) as "the determination to engage in a particular activity or to affect a particular future outcome". This differs from self-efficacy and outcome expectations because a goal can be selected by a person before they have determined how efficacious they may be in relation to the goal or how the pursuit of the goal may turn out. For example, one may decide on a goal to become a pilot in

the air force and make that a goal. As the person pursues the goal they may find out more information about the profession and determine they are efficacious enough to pursue and perhaps achieve the goal. However, the outcome expectation would be affected if the person finds out they are color blind, which prevents them from becoming a pilot and changes the person's ideas of self-efficacy concerning the particular behavior (being a pilot).

The three variables in SCCT are shaped by the person's perception of barriers, and barriers come in the form of barriers to choice, change, and growth (Lent, et al., 2002). Black students may feel due to factors such as perceived racism, economic factors, or observed experiences of their parents and others that they are closed in with their choices or opportunities for change and growth in relation to career (Constantine, et al., 2005). In an effort to gain a better understanding of this phenomenon it is important to look at the influence Gottfredson's theory of Circumscription, Compromise, and Self-Creation has on career decision in Black students.

Gottfredson's Theory of Circumscription, Compromise, and Self-Creation

Linda S. Gottfredson's theory (2002) is a developmental career theory whereas SCCT is a theory anchored in learning theory and cognitive theory (Brown, 2002). In Gottfredson's theory it is believed that an individual moves through stages of development concerning career, and these stages lead to the elimination of certain career choices based on the concepts of size and power, orientation to sex roles, social

valuation, and orientation to self (Gottfredson, 2002). The theory is also characterized by three phases which are circumscription, compromise, and self-creation.

Circumscription is the process governed more by size, power, and sex roles (Gottfredson, 2002). This is the time when an individual rules out particular professions because of their gender, perceived power due to ideas on race, or socio-economic status and how they feel they match with certain careers (Gottfredson, 2002). The process of circumscription according to Gottfredson (2002) occurs in a five step process:

1. Increasing capacity for abstraction
2. Interactive development of self and aspirations
3. Overlapping differentiation and incorporation
4. Progressive elimination of options
5. Taken for granted and lost to sight

Gottfredson (2002) believes this process is gradual and hard to observe, but it results in children becoming more complex and abstract in their thought process which allows them to see how their gender and class play a role in the types of professions they can pursue. Gottfredson's theory (2002) postulates that this process leads to children changing peer groups and schools as they explore the ideas of career and how they fit within certain professions.

Compromise of aspirations is the next phase of Gottfredson's theory (2002). This is the process of an individual moving from their "most preferred" career options instead of eliminating what is unacceptable as one does in circumscription (Gottfredson, 2002).

This movement occurs as a result of assessing the reality of a situation in light of many

factors. Using the air force pilot example from earlier the individual would be in the process of compromise once they see the reality of not being able to pilot since they are color-blind and eliminate pilot as a career option. The process of compromise in Gottfredson's theory is where you will find the beginning of inter-group differences, and it also is the stage which is related closely to perceived barriers to choice in career.

Self-creation is the result of an individual going through the process of circumscription and compromise (Gottfredson, 2002). Self-creation is shaped by how one narrows their career choices and ideas about career based on experiences and societal norms according to Gottfredson (2002). At this point the differences of people who are within like groups can be most explained by this theory because although one may look the same on paper it is logical to reason that no two people have had the same life experiences and the same responses to those life experiences. It is in this way Gottfredson's theory begins to complement SCCT due to the implication of cognitions and perceptions in the process of self-creation.

Gottfredson's theory and SCCT are two theories which meld well together to give PSCs more understanding about the origins of career foreclosure and indecision in under-served students. However, it is not enough to understand the problem, PSCs must move to action through the use of other tools which assist in servicing students. It is important to understand other factors which may be contributing to the stall of career exploration and indecision in students. Career Self-Efficacy Theory delves deeper into the issue of self-concept and how it shapes career exploration.

Career Self-Efficacy Theory

Betz and Hackett (2006) discuss the origins of Career Self-Efficacy Theory as a means for understanding the development of career in women. Lent, Brown, and Hackett (2002) in Brown's Career Choice and Development, 4th ed. Highlight the many factors such as socio-economic status, culture, and gender which impact one's possible career track. It is for this reason Career Self-Efficacy Theory is effective with the population of students being studied through this research and needs to be addressed in this review of literature as a supporting career theory. This study attempts to assess the connection if any to race and career development. Achievement gap literature shows the gap is between students of minority versus majority culture, as well as students of lower socio-economic status (Thernstrom & Thernstrom, 2004), all factors identified by Lent, Brown, and Hackett (2002) as affecting possible career paths.

The theory of Career Self-Efficacy was born out of the Social Cognitive Career Theory literature which emphasizes the connection between cognition and how perception can create barriers to career (Betz & Hackett, 2006). The self-efficacy component of this theory springs from the work of Bandura (1997) much like SCCT. When applying Self-Efficacy theory a specific behavior has to be identified and for this research it is the behavior of developing or exploring career. There are other theories underpinning the rationale behind this study, and they are explored in the next portion of this literature review.

Theoretical Foundation

For this study the theoretical foundation is not just based in career theory. Other theories need to be consulted to understand the phenomena of Blacks and career indecision. The theories consulted in this section enhance the utility of the career theories through the dimensions they provide.

Attributional Theory

Attributional Theory or Causal Attributional Theory is described by Weiner (1986) as an individual's propensity to attribute success to outside events and to internalize failures. This theory is helpful in understanding the issues surrounding career indecision because it may increase the understanding of why minorities, namely Blacks, have perceived barriers to career. The career theories described earlier in this literature review will aid in understanding how Causal Attributional Theory explains the development of perceived barriers in Blacks concerning career.

In the career theories used in this study, perception and self-concept are integral parts to career exploration and decision making. If an individual has failures it can negatively shape the person's self-efficacy (Lent, et al., 2002), and it also leads to changes in their outcome expectations and ultimately their goals (Lent, et al., 2002). An individual after going through the process of circumscription in Gottfredson's theory (2002) begins to work through the process of compromise which is brought on by the perceived realities of that individual's world in relation to their chosen career. Causal Attributional Theory illustrates how one may internalize failures leading to lowered

expectations for themselves, and attribute success to external factors. This is an indicator for career decision-making problems (Lease, 2003), due to the development of an external locus of control. These factors may lead to more perceived barriers in Blacks when it comes to career decision making. However, it is more than just the attribution of success and failure which explain the phenomenon of career indecision. Self-Worth Theory addresses the factors of ability and student effort, and for this study it will explore these factors in reference to career exploration.

Self-Worth Theory

Self-Worth Theory takes into consideration student's abilities and the effort a student puts into a particular task (Seifert, 2004). If a student gives a high level of effort and experiences success then they will also experience an increase in their self-worth (Seifert, 2004). Transversely, if a student gives a high level of effort and experiences failure they will have a decrease in their concept of self-worth (Seifert, 2004). This is important to note because when looking at Causal Attributional Theory it seems to be conclusive that all success are considered to be external and failures are internalized, however, in the instances when Self-Worth Theory is being applied the level of effort also has something to contribute to a person's self-worth (Seifert, 2004) or self-concept, which could possibly be directly related to self-efficacy. If self-efficacy is positively impacted it could raise one's outcome expectancy and shape goals in a positive way (Lent, et al.,2002). A positive impact on self-efficacy could also positively impact perceived realities in the process of compromise (Gottfredson, 2002).

The threat to Self-Worth Theory is Ogbu's (2003) concepts of "low effort syndrome" in Black students and the thought that school and learning and the things associated with education are an imposition on minority students by majority culture. This phenomenon could lead to Black students failing to put high levels of effort into tasks such as career exploration, resulting in a lack of an increase in self-worth. If self-worth is not increased self-efficacy could suffer, and this could result in an increase in the perception of barriers to career in Black students. It is for this reason the issue of motivation becomes important because the exploration of how motivation may be increased and combat low effort in students could further elucidate the issue of effort.

Motivation

Motivation is defined by Richmond (1990) as the participation in a task because the individual desires to do so. This definition is used to define motivation as a variable in this study, but it should be noted that the concept of motivation has been difficult to define by researchers (Seifert, 2004). In defining motivation it is useful to explore the factors which may predict motivation.

Research purports that one of the factors predicting motivation is a student's peer group (Altermatt & Pomerantz, 2003). Although there is a debate as to whether students select friends from peers who have similar beliefs, or if being friends creates similar beliefs in peer groups (Altermatt & Pomerantz, 2003) knowing that students are influenced by peers is valuable in planning strategies to increase motivation. However, in planning these strategies one must take into account the perceptions educators may

hold concerning motivation. Research conducted by Hufton, Elliot, and Illusion (2003) reports that teacher's perceptions on motivation can be influenced by their views on education and culture. Noticing the trends in motivation of particular peer groups may be helpful, however, PSC's must remember to keep the basic defining variables of motivation in mind when servicing students to prevent bias across cultures.

Once motivation has been defined and ways to identify motivation have been explored, the relationship between motivation and career indecision can be examined. In the literature there are many articles which address motivation and its impact on academic achievement or at-risk students such as the work that has been done by Margolis and McCabe (2003), Dev (1997), or Howse, Farran, and Boyles (2003), but there is a paucity of research on the influence motivation has on career indecision. In order to review the relationship between motivation and career indecision other factors may be considered such as locus of control.

Locus of Control

Blacks are thought to have an external locus of control namely when it comes to career exploration (Lease, 2003). The link between career indecision and locus of control issues have been made by many researchers (Fuqua, Blum, & Hartmann, 1988; Taylor, 1982; Woodbury, 1999). The external locus of control experienced by Blacks may stem from the discrimination and racism experienced by Blacks according to Sue and Sue (1990).

According to Lease (2003) external career locus of control is a significant predictor for lower career maturity, decreased career exploration, and decreased confidence in career decision-making tasks. Black students attribute career choice to variables such as timing, and luck, and may think it is not pressing enough to think of until they are closer to actually making career choices. This is an indicator of career decision making difficulty (Lease, 2003). Locus of control issues can be explored through student's choices and perception of the choices they have concerning career.

Choice is a concept which is characterized by perceptions (Reeves, et al., 2003). If a student perceives they have no viable choice to make then they refrain from making a choice at all (Reeves, et al.,2003). This is worth considering in relation to locus of control because if a student has an external locus of control which has already been determined to limit career decision making (Lease, 2003), then it stands to reason they may feel external factors (i.e. racism) limit viable choices (Reeves, et al., 2003). When faced with a lack of viable choices the student may make no choice at all which explains Lease's (2003) findings that Blacks at times feeling that the career process was too far in the future to consider thinking and preparing for it in the present. Perhaps the students were feeling if more time passed true or viable options as Reeves and colleagues (2003) would call them would be revealed thus jump starting the career decision process. It is the perceptions which are shaped by experiences which determine an individual's choices, and will have a great impact on one who has an external locus of control. For this reason it is worthwhile to explore how experience impacts career decision.

Experience

Experience is an important factor to consider when addressing the topic of career indecision. Lease (2003) found that Black students had more exposure to the world of work than their White peers. This shapes their career decision due to the tendency of Blacks to have an external locus of control concerning career (Lease, 2003), and workforce experience is an external factor. Experience also comes in the form of observing others in the workforce who may be role models. According to Martin (1995) minorities have less role models in the workforce as examples of multiple occupations than their White counterparts which limits workforce exploration. Family workforce experience is also a major factor in Blacks career exploration process (Bowman, 1993). Experience comes into play when considering the issue of workplace discrimination and experiences of inequalities in the workplace, which may create perceived barriers to career exploration (Lease, 2003).

Role of the Professional PSC in Career Education Development

Career is an important, but neglected aspect of education. PSCs are integral parts of a well rounded curriculum which addresses core subject areas as well as social emotional issues and other components such as career education. The role of the PSC is a broker (Colbert & Kulikowich, 2006), which means coordinating and implementing career education curriculum.

Traditionally schools have been designed to be teacher-centered, with pedagogy being centered around deciding what students should know and then using what is

believed by the educator to be the best method to impart this information (i.e. lecture) (Sadker & Sadker, 2005). However, pioneers in education such as John Dewey realized that a more student-centered approach must be taken to insure true learning is taking place in the classroom, and thus the progressive movement in education began (Sadker & Sadker, 2005). Despite the realizations by those who have had major influences on education such as Dewey our education system is still in need of restructuring and transformation.

In American schools a gap exists in the achievement between students of majority culture, and those from minority culture (Thernstorm & Thernstorm, 2004). Due to this achievement gap and other institutional factors in schools such as a lack of educators for urban settings (Ng, 2003), and a low representation of minority educators in schools (Wilder, 2000) the education system has become strapped for resources and funding. As the population of American schools becomes more diverse educators need to be equipped to create student centered learning environments which capitalize on the communal aspects of school as outlined by Johnson and Johnson (1999). PSCs are stakeholders in this process of transforming schools, and are integral to creating change in schools.

The role of the PSC evolved over the years from the guidance and career focus after World War II to the developmental change agents PSCs have become under the model created by the American School Counseling Association (ASCA). In today's schools, PSCs should be resource brokers as defined by Colbert and Kulikowich (2006). PSCs believe in the importance of fostering change in schools by increasing the time spent on student-centered activities and standards outlined by the National

Standards for School Counseling Programs (NSSCP) which has been adapted by ASCA (Foster, Young, & Hermann, 2005). By adhering to these standards PSCs can be a vital part of the team working to transform schools. For the purpose of this study the role the PSC plays in reference to career education will be explored at length in this literature review to outline the responsibilities PSCs have in relation to career development in students.

Roles and Responsibilities of the PSC

PSCs play many roles in the school, which are at best in place to increase achievement and awareness in students (Foster, et al., 2005). It is important that counselor educators prepare PSCs for the changing face of schools through exploring the roles PSCs hold with teachers, students, administration, and parents. PSCs must be motivators and use the theoretical base afforded them through programs of counseling education to move students towards a place of achievement and self-efficacy in the landscape of social and cultural change.

Colbert and Kulikowich (2006) describe PSCs as being resources brokers, this term alludes to PSC's heavy involvement in collecting and utilizing resources in the school. There are three steps to being a resource broker according to Colbert and Kulikowich (2006) listed as follows:

1. Collect resources
2. Implement the use of the resources
3. Assess how well the resources were used.

Using these methods PSCs find themselves in the role of collecting data to ascertain the resources needed, which is in line with the ASCA model (Hatch & Bowers, 2002). The process of data collection will involve PSCs interacting with teachers and administrators in the role of consultant as borrowed from the discrimination model of supervision described in Bernard and Goodyear (2004). PSCs will perform needs assessments or observe and examine patterns in the school to create data-driven interventions.

PSCs will play the role of consultant and teacher as borrowed from Bernard & Goodyear' description of the discrimination model (2004), when implementing the resources gathered for the data-driven interventions. Consulting and teaching will be in the form of working with teachers, students, and parents, and administrators to insure that the resources are being used by all stakeholders, and that the correct implementations of the resources gathered have been explained. When assessing whether resources were used most effectively PSCs take on the role of consultant as described earlier. This process makes PSCs the leaders in transforming schools through the school counseling program.

This relates to career education and career development in many ways. PSCs must understand the state of career decision in students as a starting point for providing services. This is done through collecting data using studies such as this study to capture the needs of the student. After assessing the needs of the students' PSCs can then take on the role of resource broker as explained above by Colbert and Kulikowich (2006). Utilizing this process PSCs have a direct impact on career education curriculum in the school setting.

The PSCs Impact on Curriculum Development

The results of the aforementioned resource broker role of the PSC will be an impact on the curriculum of the school (Colbert & Kulikowich, 2006). PSCs in their many roles will impact the learning creating a constructivist environment as described by Sadker and Sadker (2005), where students are able to use their problem solving skills to create meaning in the material they are learning. Miller (2003) describes how students need high-challenge activities using higher order thinking in order to increase student motivation and self-efficacy in the learning process. PSCs have the means to create these types of experiences for students.

For example, in high school A the administration as realized that there is a heavy flow of students in the discipline department. Upon further assessment it is revealed that a majority of the students in discipline are there due to minor arguments that have been disruptive in the class over issues that are characteristic of students in that developmental stage (i.e. relationship/social issues). The administration consults with the PSC to find out if there are things that can be done to assist with the issue.

The PSC then must begin the process of collecting data by reviewing the referrals, and consulting with the teachers about the disruptive behavior. The PSC then refers to the literature which informs the use of peer mediation as a way to give students positive experiences in school and decrease the need for disciplinary action. After gathering the resources for the program the PSC then consults and teaches the faculty and staff of the school about mediation and also teaches the parents and students about the program.

Once the program is implemented the PSC continues to assess and report the effectiveness of the program as outlined in the ASCA national model (Hatch & Bowers, 2002). This process is an illustration of how a PSC can take an issues such as discipline which is often a disruption to the learning process and create an opportunity for students to have an experiences that is centered on their learning and development where they can construct their own meanings of right and wrong and work on interpersonal skills, articulation of feelings, and conflict resolution. The example above shows the impact of the PSC on curriculum and development.

The Evolution of the PSC

Counselor educators' training PSCs should consider the populations of schools in America and the increasing diversity (Thernstorm & Thernstorm, 2004). PSCs need multicultural competencies to inform practice and conceptualization of student needs and concerns (Gainor & Constantine, 2002). The process of becoming a PSC should include not only exposure to multicultural issues, but a strong theoretical foundation, as well as quality supervision.

In all of the issues discussed in this answer the construct of multiculturalism looms in the background. Any issues addressed by the PSC must be done in the context of the cultural and social influences of the student. This is why it is important for PSCs to have the competency to understand cultural and societal differences.

Theory should be the underpinning of the interventions PSCs use to service schools. Examining theories as they related to specific constructs is an integral part to

school counseling programming. The evolved PSC will not just look at the issue of lack of motivation in students, they will assess how the lack of motivation may be impacting students through the use of theories such as Weiner's attribution theory (1986) and then how that informs the resources gathered and the intervention implemented.

Supervision is a major component to the training of evolved PSCs and the discrimination model lends it self to the development of PSCs (Page, Pietrzak, & Sutton, 2001). Due to the type of conceptualizations and roles assumed in the discrimination model PSCs will have a better grasp of their roles and responsibilities as helping professionals in the educational setting. It is also important to address the multicultural competencies in supervision and how they are best developed in school counseling supervisees. It does not matter what the cultural background is of the supervisor as long as open candid dialogues are fosters between the supervisor and supervisee cultural competencies will grow (Gatmon, Jackson, Kochkaran, Martos-Perry, Molina, & Rudolfa, 2001).

Schools need to have new energy to take them in the direction of transformation and change. PSCs are the resource brokers needed to guide this change and evolution (Colbert & Kulikowich, 2006). Applying the ASCA national model, and the adopted NSSCP PSCs will be the agents of positive change in schools (Hatch & Bowers, 2002; Foster, Young, & Hermann, 2005), as education moves towards a more diverse field of professionals. PSCs are working to close the achievement gap as defined by Thernstorm & Thernstorm (2004).

Career Indecision in Adolescents

Despite PSC's charge to provide career education as part of the developmental guidance model devised by ASCA, there is still career indecision in high school students. The indecision experienced by adolescents shows little change over time from 9th to 12th grade (Lounsbury, Hutchenson, & Loveland, 2005). Lounsbury and colleagues (2005) were able to find some correlation between the Big Five personality traits and career decidedness in high school aged students. This shows there are different levels of decidedness among students, but it does not fully explain all of the factors involved in career decidedness.

Through the work of Lounsbury, Hutchenson & Loveland (2005) five traits were found to be indicators of career decidedness and exploration in students. The five traits identified were agreeableness, conscientiousness, extroversion, emotional stability, and openness (Lounsbury, et al., 2005). It is helpful for PSCs to identify the levels of these five traits in under-served students in an attempt to highlight the strengths inherent in these students. This is done through the use of the Adolescent Personal Style Inventory (Lounsbury, et al., 2005), and provides a foundation for building strength based approaches to career development.

In an effort to examine students' identity and self-concept, which would be important in the application of Gottfredson's theory and SCCT, the work of Wallace-Brocious, Serafica, and Osipow (1994) is consulted. Wallace-Brocious and colleagues address identity as being a major indicator of career decidedness. Through the use of the Career Decision Scale (CDS) (which will be utilized in this study), the Career

Decision Inventory (CDI), the Self-Perception Profile for Adolescents (SPPA), and the Extended Objective Measure for Ego Identity Scale it was uncovered that identity is a stronger predictor of career decidedness than self-concept (Wallace-Brocious, et al., 1994).

How do the aforementioned ideas of personality traits and identity translate to practice for PSCs? Having a knowledge base of the reasons through the use of the Gottfredson' and SCCT's theoretical foundation along with the impact on specific personality traits and identity issues, a counselor can tailor interventions to the population they are servicing. Interventions to assist with the population of students need to be data-driven and informed by research (Colbert & Kulikowich, 2006).

PSCs are charged with providing career guidance to all students (Hatch & Bowers, 2002). It is important that the effects of the achievement gap are not felt in the area of career for students because it has a direct impact on the lifestyle the student will experience in the future. Through the use of Gottfredson's Theory of Circumscription, Compromise, and Self-Creation and SCCT PSCs have a theoretical foundation with which to inform programs and interventions for disadvantaged students. High school aged children according to Gottfredson's developmental career theory (2002) have moved through the first three stages of circumscription and are pondering the aspects of social value, and orientation to their internal unique self. It is during the high school years when students begin to compromise career choices and face reality. It is no wonder that openness, conscientiousness, and agreeableness are key indicators to career decidedness at this stage. However, when pulling the concepts of SCCT into the picture it has to be stated that perceptions of barriers are also important at this stage

and could possibly shape a student's openness and agreeableness thus shaping career decision. SCCT and Gottfredson's theories are essential to understanding the cognitions and perceptions of Black students and how career indecision is shaped in the Black student population.

Black Students and Perceived Barriers to Career Exploration

Loudsbury and colleagues showed there was little movement in career decidedness in high school age students from the 9th to the 12th grade. The Big Five traits were explored as possible indicators of career decidedness in students. However, career theory should be consulted when addressing the concept of career indecision. This could be done in light of the achievement differences experienced by Black versus White students. In the achievement gap literature racial discrimination, issues of wealth and economics, and intelligence level were all explored as possible causes for the gap in achievement between Blacks and their White peers. When it comes to career exploration Black students may be experiencing some of these same factors resulting in a different career exploration process than White students which could be coined by this researcher as a 'career achievement gap'. In the 'career achievement gap' Black students have reportedly experienced barriers to career which are perpetuated by what the literature refers to as a lack of parental support and issues surrounding ethnicity and discrimination (Constantine, et al., 2005), which may not be experienced on the same level as White students.

Parental Supports

Black students are found to be underachieving in school which has a direct impact on career choice and options. One of the explanations for this is the lack of parental supports for Black students (Constantine, et al., 2005). Black parents are found to have less involvement in school and school activities even in higher social economic status communities (Ogbu, 2003). It appears some Black parents feel it is the responsibility of the school to educate their child and do not know or understand the investment needed or that is being put in by their majority culture counterparts (Ogbu, 2003).

This lack of involvement is not owned solely by the Black community, but it speaks to the issue of Black student perception towards career. If Black parents are not participating in the process of day to day school matriculation, they may not be providing the supports needed for Black students to feel confident and comfortable in the process of career exploration. Some of this may be due to resources and not having the wealth to feel secure in pursuing careers needing a post-secondary education, and Ogbu (2003) reports that this also may be due to uninformed or disengaged parents. The issue of perceived barriers is not solely explained by parental supports or the lack thereof, however, it is important to highlight how this factor may add to the decreased activity in career exploration activities which may be present in Black students.

Issues of Ethnicity and Discrimination

In addition to the support afforded by parents, Black students are also experiencing perceived barriers due to the issue of ethnicity and discrimination (Lee, 2004, Ogbu, 2003). The arguments for affirmative action are entrenched in the same racist ideas which cripple Black students who are venturing into the work world and exploring career and opportunities. There is a covert and at times overt message sent that Blacks are inferior to Whites in academics and other endeavors which are germane to developing meaningful lucrative careers such as the ideas in Hernstein and Murray's *Bell Curve* (1994). These messages become barriers to Black students and leave them with a lack of desire to investigate career and educational opportunities because they shape students self-efficacy and outcome expectations as described in SCCT (Lent, et al., 2002) and can lead to modified career goals.

Another factor which results from discrimination and racial inequality is Blacks pursuing particular career paths in an effort to thwart the discriminative ideas about Blacks concerning career. This phenomenon also leads to a lack of career exploration because Blacks pursue a limited number of professions such as medicine or law in order to command respect from majority counterparts as expected in the compromise stage of Gottfredson's theory (2002) which is affected by social valuation. Although this scenario is not as dire as the other and some may view it as positive it is also a barrier to career explorations, and it does not take into account the effect it may have on students if they find their chosen career to be difficult and move into the phase of

compromise. This could completely change a student's self-concept, and self-efficacy concerning career leading to more perceived barriers on the part of Black students.

In the state of Florida the achievement gap and the possible career achievement gap are as real as they are in any other state. However, the state is moving in a direction which may lead to an increase in the gap due to new policies concerning career. Florida law must be explored so the factors surrounding career exploration with this study's population can be fully understood.

Florida Law

In the state of Florida, there is legislation requiring students to declare a major upon entering the ninth grade. This legislation House Bill 7087 will affect students entering the ninth grade in 2007 and has required schools to create majors based on the school's curriculum. This puts a strain on students and schools in many ways.

Students in the ninth grade developmentally may find it hard to select majors which are in line with their interest values and skills since at this age students are in the circumscription stage of internal unique self according to Gottfredson (2002). This means that students are exploring social aspects of fitting in and their interest and values are still yet to be fully formed (Gottfredson, 2002). The career exploration materials at use in Florida schools is mainly interest and values skill set assessments, which means that these materials may not be adequate to assist a student who is unclear about their interest and values with career decidedness.

It has long been an argument of whether high school is a time to prepare students for the workforce or if it is a time for development and exploration (Hyslop-Margison, 2000). PSCs may struggle to provide students with comprehensive career education due to a schism between PSCs activities and the developed standards, identified counselor duties (Foster, Young, & Hermann, 2005) leaving students at a disadvantage when it comes to going through the process of informed major selection. In addition Ginzberg (1971) defined career development as occurring over the span of an individual's life. Keeping this in mind it seems counterproductive to create a situation where students are forced to select a career path and be held in a particular major during crucial developmental years.

Schools may be hard pressed to meet the expectation to set up majors for students which fit into the requirements for the house bill and make sense in master schedules. Some of the issues stem from the already stretched master schedules in which schools are mandated to have students in FCAT reading and soon math classes by state mandate (Personal communication with Cathy Lindeman, October 30, 2006). Trying to incorporate Reading and math classes for FCAT remediation along with required performing arts electives, four major classes and three minor classes leaves very little room in student's schedules for exploration of interest, and can be highly detrimental to lower performing student's high school graduation rates. This creates even more issues for educators who are working on eliminating the achievement gap.

Summary

This review of the literature was an overview of the history of career counseling framed in the black experience transitioning into the issues of the achievement gap in the United States. The theories of career development germane to this study were explored such as Social Cognitive Career Theory (SCCT), and Gottfredson's Theory of Circumscription, Compromise, and Self-Creation. Other key theories were explored as they pertained to this study and those theories were Attribution Theory and Self-Worth Theory. The variables of motivation, and locus of control were reviewed along with other concepts which clarify the phenomena being explored in this study such as experience, the role of the PSC, career indecision, perceived barriers of Black students to career, and the Florida law concerning career/ major selection, and its impact on the population participating in this study. The next chapter is a description of the methodology and procedures used in implementing this study.

CHAPTER THREE: METHODOLOGY

The purpose of this quasi-experimental study was to define the phenomena of career indecision in Black versus White students, and to assess the differences which may exist in the area of career indecision. Additionally, this study attempts to identify the relationships which may exist among motivation, attributional style, locus of control, and career indecision. It was hypothesized that there is a difference in the level of career indecision in Black versus White students. There were also hypotheses of relationships among motivation, attributional style, locus of control, and career indecision. Furthermore, it is assumed the difference between Black and White students concerning career indecision can be explained by the relationships which exist between motivation, attributional style, locus of control, and career indecision.

Context of the Study

This study was conducted in a public magnet high school in the city of Sanford located in Seminole County. Sanford is a suburban area located approximately 30 miles outside of the city of Orlando, Florida which is located in Orange County. Seminole, Orange, and Volusia County are considered to comprise what is known as the Tri-county area. In Seminole County the projected 2005 population was 401,619 with 82% being white, 10.6% black, 3.2% Asian, 0.4% Native American, 0.1% Pacific Islander, and 13.2% of Latino or Hispanic origin (Latino or Hispanic people can be of other races so this statistic reflects those who may have reported another race, but have Latino or Hispanic origin). (U.S. Census Bureau 2000. *Seminole County Quickfacts*. Retrieved

August 8, 2006, from <http://quickfacts.census.gov/qfd/states/12/12117.html>). In Seminole County 24% of the population is under the age of 18 and 10.7% are over the age of 65 (U.S. Census Bureau 2000. *Seminole County Quickfacts*. Retrieved August 8, 2006, from <http://quickfacts.census.gov/qfd/states/12/12117.html>). When looking at the workforce in Seminole County 58.1% of the population makes up the workforce with a 5% unemployment rate (Seminole County Facts. Retrieved August 8, 2006, from <http://www.insideseminole.com/seminole/facts.asp>). The economy of Seminole County is comprised mainly of jobs in the professional and business services, construction, real estate, healthcare, and education (Seminole County Facts. Retrieved August 8, 2006, from <http://www.insideseminole.com/seminole/facts.asp>).

Selection of the Population and Study Site

The participants will be 9th grade suburban public magnet high school students in a central Florida school district. Students of all racial backgrounds will be assessed, however, for the purpose of this study only those who identify as either Black or White on the demographics sheet will be considered. The students will be selected from the classroom populations approved by the principal using purposive sampling (Shadish, Cook, & Campbell, 2002).

This is a one sample or case I study with the main hypothesis being one tailed. The main hypothesis is one tailed because the research “indicates the direction of the difference in the mean of the population under the null hypothesis and the alternative hypotheses” (p.265) (Shavelson, 1995), thus the critical region for rejecting the null falls

in one tail of the distribution of probability (Shavelson, 1995). The alpha for this study was set at .05 to reduce the possibility of a Type I error (Shavelson, 1995). The power was set at .80 which means the beta is .20 which is done to reduce the possibility of a Type II error (Shavelson, 1995). This also means that the relationship between two main variables, race and career indecision, can be predicted 80% of the time. Taking these factors into consideration the minimum number of participants is 80 to allow a sample size large enough for proper data analysis.

To increase the internal validity of the study the instruments will be given in a short time span (over two weeks) during many class periods to students in an effort to control for the effects of history, maturation, instrumentation, and experimental mortality. The samples were selected with the approval of the principal to represent the 9th grade student body to control for differential selection. There is no treatment in this study, so the issue of external validity will be increased by clear and thorough description of the setting, procedures, and participants. This will assist in increasing generalizability.

The principal of the high school being used in this study was contacted and gave approval pending the approval of the school district office. The researcher completed the necessary forms for approval to enter the school. As an incentive the researcher is offering a debriefing on the results of the study along with programming ideas to the school. No other incentives are being offered for students, faculty, or administrators who may aid or participate in this study.

Description of the Study Site

The school is comprised of 2,748 students. The racial breakdown of the school is 6% Asian/Pacific Islander, 24 % Black, 16% Hispanic, <1% Native American, and 52% White. Thirty-eight percent of the students are on free or reduced lunch. Sixteen percent of the teachers are in their first year, 42% have a master's degree, and 1% has a doctorate degree. The school has a 1:17 teacher to student ratio, 94% attendance rate, and 3% of the students are English Language Learners (ELL). The school offers an International Baccalaureate Program and has a Health Academy Magnet.

Sampling Procedures

For the purpose of this study the sampling procedures used were purposive sampling which according to Patton (1990) is selecting a population based on a particular characteristic, and convenience sampling which involves selecting the most accessible participants in order to achieve the necessary sample size (Denscombe, 1998). In this case the purposive sample is stratified purposeful because they are selected from specific subgroups of students based on race in order to facilitate comparisons (Black versus White students) (Patton, 1990). The population for this study was all ninth grade students in the high school. The groups of students sampled were from 13 World Cultural Geography classes. The sample size needed was 80 for this study; however, an attempt was made to involve 220 students. Of the 220 students invited to participate through the dissemination of the parental consent form 101 returned forms, which was a 45.9% response rate. Of the 101 students who completed

the parental consent forms two were absent the day the assessments were given, and five were incomplete with missing responses. This leaves 95 participants in the study which exceeds the 80 minimum participants needed for this study.

Description of the Sample

The 95 participants in the study were comprised of 55 females (57.9%) and 40 males (42.1%) (see table 1). The self-reported racial breakdown of the participants was as follows, 36 (37.9%) Black, 30 (31.6%) White, 7 (7.4%) Asian, 21 (22.1%) Hispanic, and 1 (1.1%) Native American (see table 2). There were 7 (7.4%) students who were ELL (English Language Learners), and 4 (4.2%) of the students were in Exceptional Student Education (ESE), 21 (22.1%) in honors classes, and 1(1.1%) in Advanced Placement (AP) classes (see table 3). The mean grade point average (GPA) was 2.628 with a minimum self-reported GPA of 0.0 a maximum self reported GPA of 4.0, and a standard deviation of .758 (66 of the 95 students reported GPA)(see table 4). Students in the sample self-reported 38 (40.0%) on free lunch and 14 (14.7%) on reduced lunch (see table 5).

Table 1

Gender Distribution of the Study Sample

Gender	Actual Number	Percentage Total
Female	55	55.6
Male	40	40.4
Total	95	100.0

Table 2

Racial Distribution of the Study Sample

Race	Actual Number	Percentage Total
Black	36	37.9
White	30	31.6
Asian	7	7.4
Hispanic	21	22.1
Native American	1	1.1
Total	95	100.0

Table 3

Distribution of Educational Program Participation in Study Sample

Program Type	Actual Number	Percentage of Total
ELL	7	7.4
ESE	4	4.2
Honors	21	22.1
Advanced Placement	1	1.1
No Participation	62	65.2
Total	95	100.0

Table 4

Grade Point Average Distribution of the Study Sample

	Number	Minimum	Maximum	Mean	Std. Dev.
GPA	66	0.000	4.000	2.628	.758
Valid N	66				

Table 5

Free and Reduced Lunch Distribution of the Study Sample

Lunch Program	Actual Number	Percentage Total
Free	38	40.0
Reduced	14	14.7
No Lunch Program	43	45.3
Total	95	100.0

Other information was collected through the use of the demographics sheet such as parental education level and occupation, parent age, family yearly income, and socioeconomic status. The tables for the other demographic data collected are located in Appendix I.

Research Questions Hypotheses, and Variables

Research Questions

The research questions examined by this study were:

1. Is there a difference in career indecision/certainty between Black and White 9th grade suburban students?
2. What relationship exists among motivation, attributional style, locus of control, and career indecision/certainty?

Research Null Hypotheses

The hypothesis developed from the first research question is:

- Hypothesis 1: There is no difference in career indecision/certainty in Black and White 9th grade suburban students.

The hypotheses developed from the second research question are:

- Hypothesis 2: There is no relationship among motivation level and attributional style.
- Hypothesis 3: There is no relationship among motivation level and locus of control.
- Hypothesis 4: There is no relationship among motivation level and career indecision/certainty.
- Hypothesis 5: There is no relationship among attributional style and locus of control.
- Hypotheses 6: There is no relationship among attributional style and career indecision/certainty.
- Hypothesis 7: There is no relationship among locus of control and career indecision/certainty.

Variables

In this study the following variables are considered:

1. Motivation: The act of participating in something or performing a task because there is a desire in the individual to do so (Richmond, 1990). This variable is

measured by a five item bipolar scale which has been adapted from the work of Virginia P. Richmond.

2. Attributional Style: the level to which children tend to attribute positive events to factors outside of themselves (external) and to view the causes of those events as inconsistent over time (unstable) and situation specific (specific). This variable is measured by the Children's Attributional Style Questionnaire (CASQ-R).
3. Locus of Control: whether or not a child believes that reinforcement comes to him or her by chance or fate (external locus of control) or because of his or her own behavior (internal locus of control). Locus of control in children is important because a number of studies have shown that it is related to several other behaviors and attitudes including some involving academic achievement, and it is measured by the Nowicki-Strickland Locus of Control Scale (N-SCLS).
4. Career Indecision: the amount of uncertainty surrounding career is measured by the Career Decision Scale (CDS) which produces the level of career certainty and the level of career indecision.

Instruments

The main variables in this study were measured using a five-item polarized motivation scale, the Children's Attributional Style Questionnaire (CASQ-R), the Children's Nowicki Strickland Internal External Locus of Control Scale (CNISE), and the Career Decision Scale (CDS). In addition, demographic information was collected from the participants using a Demographics Questionnaire.

Five-Item Polarized Motivation Scale

The motivation scale used in this study is a five scale polarized item assessment. It was originally used as a three item scale by Beatty, Forst, and Stewart in 1986 to measure motivation and had an alpha reliability of .79. The original scale was used with undergraduate students (n=69) in a communication class and the point of reference was oral presentations and communication apprehension (Beatty, Forst, & Stewart, 1986).

Later, Richmond (1990) used a five item adapted version of the scale in a study on the use of Behavior Alteration Techniques or BATs. The subjects were undergraduate students (n=366) in a communications class, and the prompt for the scale was “My feelings about studying the content in the class” (Richmond, 1990, p. 183). The five polarized responses were “motivated-unmotivated”, “excited-bored”, “interested-uninterested”, “involved-uninvolved”, and “looking forward to it- dreading it.” Each item was rated on a 7-point Likert scale. The alpha reliability of this adapted version of the scale was .94.

The five item scale used by Richmond (1990) is used in this study with the exception of the prompt which was adapted to read, “My feelings about choosing a career or major”. This scale was analyzed using factor analysis to identify the reliability of the items for the population being assessed in this study and resulted in an alpha reliability of .82. Three prior studies have used these polarized items which add to the validity of the items in measuring motivation levels in reference to particular academic related behaviors (Beatty, Forst, & Stewart; Richmond, 1990). The scale provides a total score ranging from 5 to 35 with higher scores equaling higher levels of motivation. The

total score acts as a measure of student motivation level in reference to career and major selection.

Children's Attributional Style Questionnaire (CASQ-R)

The Children's Attributional Style Questionnaire (CASQ-R) was created by Thompson, Kaslow, Weiss, and Nolen-Hoeksema (1998), and it is printed in the Measures for Clinical Practice (Volume 1): Couples, Families, and Children (3rd Ed.), which is published by The Free Press. It is used to measure the attributional style of children and the attributional reformulation of the learned helplessness model of depression in children. Children who report more depressive symptoms attribute positive events to factors outside of themselves and negative events to internal factors.

The CASQ-R was normed using 1086 elementary and middle school students from nine public schools in the southeast. The sample of children was 48% male, and 52% female, 56% African-American, and 44% Caucasian. The students were from mixed levels of socio-economic status. The CASQ-R has 24 forced-choice items with half addressing positive outcomes and the other half addressing negative outcomes.

The reliability is fair with a Cronbach's alpha of .61 for the composite score, and a test retest reliability of .53 over a six month period. The validity of the CASQ-R is good with the overall positive and negative composite scores correlating as predicted in the same direction as the Vanderbilt Depression Inventory.

Children's Nowicki Strickland Internal External Locus of Control Scale (CNISE).

The Children's Nowicki Strickland Internal External Locus of Control Scale (CNISE), was developed by Nowicki and Strickland (1973), and is available in the Measures for Clinical Practice (Volume 1): Couples, Families, and Children (3rd Ed.), which is published by The Free Press. The scale is used to measure locus of control in children and whether or not children believe that reinforcement comes from themselves by chance or fate, or because of their own behavior.

The CNISE was normed in a series of students with over 1000 children representing both genders from the third grade to the 12th grade, primarily white, and from all socio-economic backgrounds. The internal consistency is fair with split-half reliabilities increasing with age .32 for grades 3-5, .68 for grades 6-8, .74 for grades 6 through 11, and .81 for grade 12. The test retest correlations after a six week time period is .63 for third grade, .66 for the seventh grade, and .71 for the tenth grade. The validity is fair correlating with three other measures of locus of control.

Career Decision Scale (CDS)

The Career Decision Scale (CDS) was created by Samuel H. Osipow (1987) and is published by Psychological Assessment Resources (PAR), Inc. It is used to measure the level of indecision an individual has surrounding career choice. The purpose of using the CDS with clients and students is to uncover the issues which have led to a lack of understanding their career indecision (Zunker & Osborn, 2002). The CDS is also appropriate to use to measure the effectiveness of a career intervention when

conducting career counseling. The CDS not only assists with measuring career choice certainty, it can also assist with interpreting major choice certainty.

The CDS is a 19 item inventory with two scales. The first scale measures certainty and the second scale measures indecision. The items on the CDS are Likert-scale, four point, and range from 1 = "not at all like me" to 4 = "like me". The final item (item 19) is an open-ended item for the participant to write any other information they think might be helpful. The first two items are used to calculate the Certainty Scale score and the other items from 3 to 18 are used to calculate the Indecision Scale score. Significant scores are either at or below the 15th percentile or indecision scores at or above the 85th percentile. The two scales should be inversely correlated with the Certainty Scale rising as the Indecision Scale decreases and vice versa. If there are scores which are both rising or both decreasing the assessment administrator needs to examine the protocols under which the assessment was given or speak with the participant to clear up their idea towards career (Zunker & Osborn, 2002). For example, one could have high indecision, but be comfortable about the indecision (Zunker & Osborn, 2002).

The CDS was normed using high school and college aged students. It was also normed on adults furthering their education and women returning to school. The scale's validity has been listed as impressive (Harmon, 1994) with the item correlations for the Certainty and Indecision scales ranging from .34 to .82 with most of the correlations falling between .60 and .80. Test-retest reliability for the CDS ranges from .82 to .90 for college students in a psychology course and .70 for a group of college students at the

end of a six week period. Further research is being conducted as to whether sub-scales exist on the CDS (Zunker & Osborn, 2002).

Demographics Questionnaire

Demographic information was collected from the participants in a format influenced by the work of Williams (2004). The demographic data collected consisted of participant's gender, race, grade point average, and number of honors, advanced placement, exceptional education, and ELL classes they are currently taking. Other data collected on the demographics sheet include participant's income level, parental education level, socio-economic status, career influences, and plans post high school. This data will assist in the generalizability of the studies results and the full description of this study's participants.

Data Collection

This quasi-experimental study will examine the relationship between motivation, attributional style, locus of control, and career indecision in Black and White 9th grade suburban students. The purpose of this study is to assess the level of career indecision in Black versus White 9th grade students and examine the relationship between the variables of motivation, attributional style, locus of control, and career indecision to assess if there is any correlation between the variables in an effort to understand the factors which interact and influence career indecision in high school students. The

dependent variables are motivation, attributional style, locus of control, and career indecision. The independent variable in this study is race.

Ninth grade students will be accessed through the administrative contacts at a central Florida district suburban high school. The students in this study were selected for their willingness, and the consent of their parent or guardian for them to participate in data collection. After receiving permission from the administration, written consent from the parent or guardian, and oral assent from the students, the researcher will disseminate sets of assessment instruments (the Five-Item Polarized Motivation Scale, CASQ-R, CNISE, and CDS) accompanied by a demographic sheet. The researcher will provide the students with directions on completing the assessment and demographic sheet, and collect the assessments sets after the administration is complete. The researcher will offer the high school the opportunity to have an in-service or other meeting decided upon by the principal to debrief the staff on the findings of the study and make recommendations for programming in the school.

Design

In this study the researcher is studying numbers, and two groups of people are being compared with respect to quantitatively measured variables. The research design is Quasi-Experimental due to the dependent variable of race, which results in participants being assigned by group (racial group) instead of as individuals being randomly assigned to groups.

Data Analysis

This study has two questions which were analyzed using the Statistical Package for the Social Sciences (SPSS). For the first question, “Is there a difference in career indecision between Black and White 9th grade suburban students?” there is one dependent variable (career indecision) and one independent variable (race). The statistical procedure used for this question was the one-way analysis of variance (ANOVA) because the researcher is attempting to find the differences between the two groups in regards to how race affects career indecision. The grouping factor is race, and career indecision is the dependent variable, which is measured with the two scores certainty and indecision. For each group the number of cases, mean, standard deviation, standard error of the mean, minimum, maximum, and 95% confidence interval for the mean was provided. A Levene's test for homogeneity of variance, and analysis-of-variance table was also produced; no post-hoc test was performed because there were fewer than three groups being compared.

For the second question, “What relationship exists between motivation, attributional style, locus of control, and career indecision?” Linear regression analysis was performed to determine if any of the variables were predictors of the others. For each variable the number of valid cases, mean, and standard deviation were provided.

Summary

This chapter provided the outline of the methodology of this study. First, the context of the study was provided along with the selection of the population and the

study site. This was followed by the sampling procedures and a description of the sample used in this study. The research questions and null hypothesis were provided along with the variables as defined for this study. The instruments used in this study were introduced which were the Five-Item Polarized Motivation Scale, the Children's Attributional Style Questionnaire, the Nowicki-Strickland Locus of Control Scale, and the Career Decision Scale. These scales were reviewed and the reliability and validity for each scale was provided. The demographics questionnaire used in this study was described as well as the data collection methods, and data analysis to be performed with a description of the statistical procedures to be used to assess the proposed hypotheses. The next chapter was a review of the results of this study using the previously described statistical procedures along with the study's limitations.

CHAPTER FOUR: DATA ANALYSIS AND RESULTS

Introduction

The purpose of this quasi-experimental study was to define the phenomena of career indecision in Black versus White students, and to assess the differences which may exist in the area of career indecision. Additionally, this study attempts to identify the relationships which may exist among motivation, attributional style, locus of control, and career indecision. It was hypothesized that there is a difference in the level of career indecision in Black versus White students. There were also hypotheses of relationships among motivation, attributional style, locus of control, and career indecision. Furthermore, it is assumed the difference between Black and White students concerning career indecision can be explained by the relationships which exist between motivation, attributional style, locus of control, and career indecision.

There were two research questions examined by this study. The first question was: Is there a difference in career indecision/certainty between Black and White 9th grade suburban students? The null hypothesis for this question was:

- Hypothesis 1: There is no difference in career indecision/certainty in Black and White 9th grade suburban students.

For the first question an analysis of variance (ANOVA) was performed to address the first null hypothesis to determine if there was a difference in the level of career indecision based on race between Black and White ninth grade students.

The second research question examined by this study was: What relationship exists among motivation, attributional style, locus of control, and career

indecision/certainty? The hypotheses developed from the second research question were:

- Hypothesis 2: There is no relationship among motivation level and attributional style.
- Hypothesis 3: There is no relationship among motivation level and locus of control.
- Hypothesis 4: There is no relationship among motivation level and career indecision/certainty.
- Hypothesis 5: There is no relationship among attributional style and locus of control.
- Hypotheses 6: There is no relationship among attributional style and career indecision/certainty.
- Hypothesis 7: There is no relationship among locus of control and career indecision/certainty.

For the second question simple linear regression analysis was used for each variable pairing to determine to what degree is any the variables explain or predict each other.

A post hoc set of analyses were done to determine the relationship between race and the other variables of motivation, attributional style, and locus of control to determine the difference between Black and White students for each of these variables and their possible impact on career indecision.

Analysis of the Hypotheses

In this section the analysis performed for each of the seven hypotheses is presented. All of the analyses in this section assume an alpha of .05.

Primary Research Question

There was one null hypothesis for research question one. Below is the analysis for hypothesis one.

Analysis of Hypothesis 1

The first question had one null hypothesis which was: There is no difference in career indecision/certainty in Black and White 9th grade students. ANOVA was deemed a suitable procedure for these data due to the homogeneity of variance assumption was met ($p = 0.819$) as seen in Table 6. The assumption of the N's being equal was violated, however, ANOVA was still deemed suitable in regard to the indecision scale (INDEC). A statistically significant difference among the group means was not found suggesting that the data are unlikely, assuming that the null hypothesis is true in regards to indecision $F(1, 57) = 0.202, p = 0.655$ (see table 7).

Table 6

Levene's Test of Equality of Error of Variance for Indecision (n=59, 32= Black, 27= White)

Dependent Variable: INDEC

F	df1	df2	sig.
.056	1	57	.814

*Test the null hypothesis that the error of variance of the dependent variable is equal across groups.
a. Design: Intercept + BLKWHT*

Table 7

Test of Between-Subjects Effects for Indecision

Dependent Variable: INDEC

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	20.091b	1	20.091	.202	.655
Intercept	72947.277	1	72947.277	733.445	.000
RACE 1	20.091	1	20.091	.202	.655
Error	5669.130	57	99.458		
Total	79371.000	59			
Corrected Total	5689.220	58			

a. Computed using alpha = .05

b. R squared = .003 (Adjusted R Squared = .015)

For the certainty scale (CERT) ANOVA was not deemed a suitable procedure due to the assumption of the homogeneity of variance being violated as well as the N's being unequal (see table 8). In this case due to the difference in the type of data between the indecision scale (interval/ratio) versus the certainty scale (ordinal) a more appropriate analysis was deemed necessary to determine the acceptance or rejection of the null. For the certainty scale a Mann Whitney test nonparametric test was performed. There was no statistical significance in the level of career certainty in Black students versus white students ($z = -.500$, $p > .617$) (see table 9). Those students who self reported as being Black ($M_{rank} = 33.00$) were not perceived as experiencing more career certainty than those students who self reported as being White ($M_{rank} = 30.75$) (see table 10). Since the results show no statistically significant results for the CDS indecision and certainty scales in regards to race the null hypothesis for the first research question was not disproved.

Table 8

Levene's Test of Equality of Error of Variance for Certainty Scale (n=59, 32= Black, 27= White)

Dependent Variable: CERT

F	df1	df2	sig.
10.847	1	57	.002

*Test the null hypothesis that the error of variance of the dependent variable is equal across groups.
a. Design: Intercept + BLKWHT*

Table 9

Test Statistics for Certainty (n= 59, Black 32, White= 27)

Mann Whitney U	455.00
Wilcoxon W	861.000
Z	-.500
Asymp. Sig. (2 tailed)	.617

a. Grouping Variable: Race1

Table 10

Ranks for Certainty Scale

Race 1	N	Mean Ranks	Sum of Ranks
Black	32	33.00	1155.00
White	27	30.75	861.00
Total	59		

Secondary Research Question

There were six null hypotheses for research question two. Below is the analysis for hypotheses two through seven.

Analysis of Hypothesis 2

The second null hypothesis was: There is no relationship among motivation level and attributional style. Linear regression analysis was deemed a suitable procedure for this data with motivation as the dependent variable and attributional style (CASQ) as the predictor variable. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 9.2% of the variation (see table 11) in the dependent criterion $F(1, 0.792) = 0.792, p = .376$ as (see table 12). The confidence intervals around the b weights included zero as a probable value, so a value of zero was probable among possible values (see table 13). This suggests that the results for the independent variable probably do not predict or explain the dependent variable.

Table 11

Model Summary for Attributional Style as a Predictor of Motivation

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.092a	.009	-.002	6.163

a. Predictors: (Constant), CASQ

b. Dependent Variable: Motivation

Table 12

ANOVA for Attributional Style as a Predictor of Motivation

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	30.094	1	30.094	.792	.376a
Residual	3494.513	92	37.984		
Total	3524.606	93			

- a. Predictors: (Constant) CASQ
- b. Dependent Variable: Motivation

Table 13

Coefficients for Attributional Style as a Predictor of Motivation

	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B	
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	26.361	1.099		23.976	.000	24.177	28.545
CASQ	.159	.179	.092	.890	.376	-.196	.515

a. Dependent Variable: Motivation

Analysis of Hypothesis 3

The third null hypothesis was: There is no relationship among motivation level and locus of control. Linear regression analysis was deemed a suitable procedure for this data with motivation as the dependent variable and locus of control (LOC) as the predictor variable. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 23.4% of the variation (see table 14) in the dependent criterion $F(1, 5.375) = 5.375, p = .023$ as (see table 15). The confidence intervals around the b weights does not include zero as a probable value, so a value of zero was not probable among possible values (see table 16). This suggests that the results for the independent variable probably do predict or explain the dependent variable.

Table 14

Model Summary for Locus of Control as a Predictor of Motivation

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.234a	.055	.044	6.025

a. Predictors: (Constant), LOC

b. Dependent Variable: Motivation

Table 15

ANOVA for Locus of Control as a Predictor of Motivation

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	195.123	1	195.123	5.375	.023a
Residual	3375.782	92	36.299		
Total	3570.905	93			

- a. Predictors: (Constant) LOC
- b. Dependent Variable: Motivation

Table 16

Coefficients for Locus of Control as a Predictor of Motivation

	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B	
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	31.805	2.067		15.387	.000	27.700	35.909
LOC	-.320	.138	-.234	-2.319	.023	-.595	-.046

a. Dependent Variable: Motivation

Analysis of Hypothesis 4

The fourth null hypothesis was: There is no relationship among motivation level and career indecision/certainty. Linear regression analysis was deemed a suitable procedure for this data with motivation as the dependent variable and career indecision (INDEC) and career certainty (CERT) as the predictor variables. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 41.3% of the variation (see table 17) in the dependent criterion $F(2, 8.623) = 4.312$ $p = .000$ as (see table 18). The confidence intervals around the b weights for CERT do not include zero as a probable value, so a value of zero was not probable among possible values (see table 19). The confidence intervals around the b weights for INDEC contains zero as a probable value, so a value of zero was probable among possible values (see table 19). This suggests that the results for the independent variable CERT probably do predict or explain the dependent variable, However, the results for the independent variable INDEC may not predict or explain the dependent variable, or has a very small predictive power (due to zero being the ceiling value for the b weights).

Table 17

Model Summary for Career Indecision and Certainty as a Predictor of Motivation

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.413a	.170	.151	5.287

a. Predictors: (Constant), INDEC and CERT

b. Dependent Variable: Motivation

Table 18

ANOVA for Career Indecision and Certainty as a Predictor of Motivation

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	482.152	2	241.076	8.623	.000a
Residual	2348.331	84	27.956		
Total	2830.483	86			

a. Predictors: (Constant) INDEC and CERT

b. Dependent Variable: Motivation

Table 19

Coefficients for Career Indecision and Certainty as a Predictor of Motivation

Model	Unstandardized		Standardized			95% Confidence Interval for B		Collinearity	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound		Statistics
(Constant)	26.245	4.181		6.277	.000	17.931	34.560		
CERT	1.032	.418	-.270	2.408	.016	.201	1.863	.823	1.215
INDEC	-.136	.068	-.218	-1.993	.049	-.272	.000	.823	1.215

a. *Dependent Variable: Motivation*

More conventionally, the b weights for the independent variables CERT and INDEC may be described as statistically significant (CERT $p = .016$, INDEC $p = .049$). This suggests that the results for CERT and INDEC the independent variables are precise enough to be retained in the specified model (assuming, as is usually the case that zero is the value of interest and despite zero being the ceiling value for INDEC). Closer inspection of the b weights, suggested that with every unit increase in the independent variable CERT, a 1.032 unit increase was observable in the dependent criterion. Moreover, with every unit increase in the independent variable INDEC, a .136 unit decrease was observable in the dependent criterion (see table 19).

While the values of the b weights are useful in terms of understanding the unit change in Y for every unit change in X, they do not reveal the relative effects of the independent variables on Y, so, the Beta weights were consulted. The Beta weights revealed that a standardized unit change in CERT with respect to MOTIVATION (Beta = 0.270) was higher than a standardized unit change in INDEC with respect to MOTIVATION (Beta = 0.218) (see table 19).

Inspection of the variance inflation factor for each of the predictors suggested that multicollinearity is not problematic. The VIF for both predictors does not exceed 10.00 (see table 19). Because multicollinearity (correlations among the independent variables) may hide the true explanatory or predictive power of each independent variable (even when only moderately present), structure coefficients were calculated and compared (see figure 1).

$$r_{\text{MOTIVATI CERT}} = .362 = \sqrt{.133} = .365 \quad \text{and}$$

$$R^2 = .413$$

$$r_{\text{MOTIVATI INDEC}} = .332 = \sqrt{.110} = .332$$

$$R^2 = .413$$

Figure 1: *Structure Coefficients for Career Indecision and Career Certainty as Predictors of Motivation*

The squared structure coefficients revealed that independent variable CERT accounted for 87.7% of the explained variance and independent variable INDEC accounted for 80.4% of the explained variance (see figure 1). Generally, both independent variables predicted or explained a sizable portion of the R². Inspection of the plot of the standardized residuals against the predicted values revealed no nonlinear trends (see graph 1) or heteroscedasticity (inconstant variance) (see graph 2). Moreover, the distribution of the standardized errors sufficiently approximated normality.

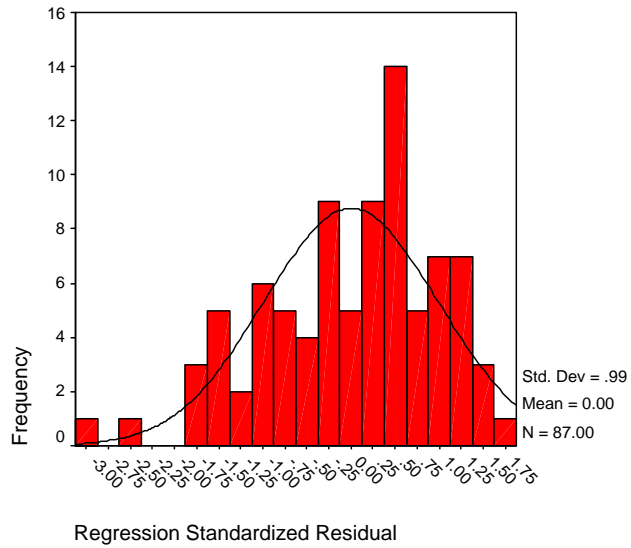


Figure 2: Histogram of the Dependent Variable Motivation

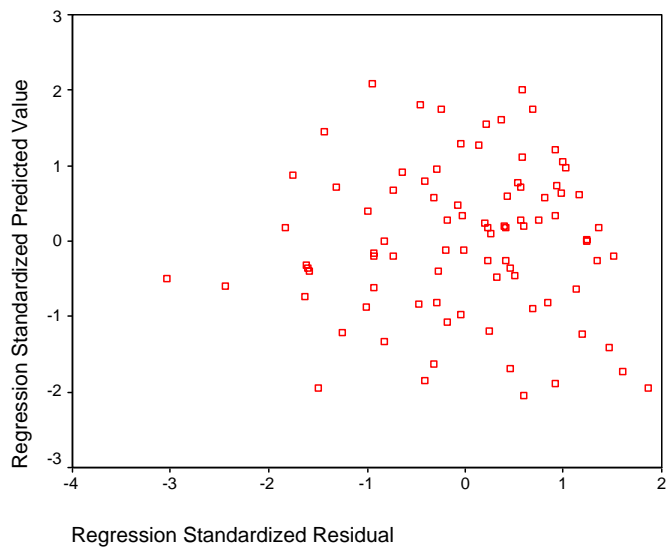


Figure 3: Scatterplot of the Dependent Variable Motivation

Analysis of Hypothesis 5

The fifth null hypothesis was: There is no relationship among attributional style and locus of control. Linear regression analysis was deemed a suitable procedure for this data with attributional style (CASQ) as the dependent variable and locus of control (LOC) as the predictor variable. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 45.8% of the variation (see table 20) in the dependent criterion $F(1, 24.458) = 24.458, p = .000$ as (see table 21). The confidence intervals around the b weights does not include zero as a probable value, so a value of zero was not probable among possible values (see table 22). This suggests that the results for the independent variable probably predict or explain the dependent variable.

Table 20

Model Summary for Locus of Control as a Predictor of Attributional Style

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.458a	.210	.201	3.190

a. Predictors: (Constant), LOC

b. Dependent Variable: CASQ

Table 21

ANOVA for Locus of Control as a Predictor of Attributional Style

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	248.868	1	248.868	24.458	.000a
Residual	936.121	92	10.175		
Total	1184.989	93			

a. Predictors: (Constant) LOC

b. Dependent Variable: CASQ

Table 22

Coefficients for Locus of Control as a Predictor of Attributional Style

		Unstandardized	Standardized		95%		
		Coefficients	Coefficients		Confidenc		
				e Interval			
				for B			
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	10.173	1.094		9.295	.000	7.999	12.346
LOC	-.362	.073	-.458	-4.946	.000	-.508	-.217

a. *Dependent Variable: CASQ*

Analysis of Hypothesis 6

The sixth null hypothesis was: There is no relationship among attributional style and career indecision/certainty. Linear regression analysis was deemed a suitable procedure for this data with attributional style as the dependent variable and career indecision (INDEC) and career certainty (CERT) as the predictor variables. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 6.3% of the variation (see table 23) in the dependent criterion $F(2, .165) = .0825$ $p = .848$ as (see table 24). The confidence intervals around the b weights for CERT include zero as a probable value, so a value of zero was probable among possible values (see table 25). The confidence intervals around the b weights for INDEC does not contain zero as a probable value, so a value of zero was not probable among possible values (see table 25). This suggests that the results for the independent variable CERT probably do not predict or explain the dependent variable, however, INDEC probably predicts or explains the dependent variable.

Table 23

Model Summary for Career Indecision and Certainty as a Predictor of Attributional Style

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.063a	.004	-.020	3.053

a. Predictors: (Constant), INDEC and CERT
b. Dependent Variable: CASQ

Table 24

ANOVA for Career Indecision and Certainty as a Predictor of Attributional Style

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.084	2	1,542	.165	.848a
Residual	782.847	84	9.320		
Total	785.931	86			

a. Predictors: (Constant) INDEC and CERT

b. Dependent Variable: CASQ

Table 25

Coefficients for Career Indecision and Certainty as a Predictor of Attributional Style

Model	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound		
(Constant)	6.067	2.414		2.513	.014	1.266	10.867		
CERT	-.134	.241	-.067	-.557	.579	-.614	.346	.823	1.215
INDEC	-.014	.039	-.044	-.366	.715	.093	.064	.823	1.215

a. Dependent Variable: CASQ

Analysis of Hypothesis 7

The seventh null hypothesis was: There is no relationship among locus of control and career indecision/certainty. Linear regression analysis was deemed a suitable procedure for this data with locus of control (LOC) as the dependent variable and career indecision (INDEC) and career certainty (CERT) as the predictor variables. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 27.5% of the variation (see table 26) in the dependent criterion $F(2, 3.445) = 1.723$ $p = .036$ (see table 27). The confidence intervals around the b weights for CERT include zero as a probable value, so a value of zero was probable among possible values (see table 28). The confidence intervals around the b weights for INDEC contains zero as a probable value, so a value of zero was probable among possible values (see table 28). This suggests that the results for the independent variables CERT and INDEC probably do not predict or explain the dependent variable despite the fact that the model fits well according to the F statistic significance ($p=.036$) However, both of the independent variables are excluded from the model so no further analysis is necessary.

Table 26

Model Summary for Career Indecision and Certainty as a Predictor of Locus of Control

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.275a	.076	.054	3.979

a. Predictors: (Constant), INDEC and CERT
 b. Dependent Variable: LOC

Table 27

ANOVA for Career Indecision and Certainty as a Predictor of Locus of Control

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	109.101	2	54.551	3.445	.036a
Residual	1330.002	84	15.833		
Total	1439.103	86			

a. Predictors: (Constant) INDEC and CERT
 b. Dependent Variable: CASQ

Table 28

Coefficients for Career Indecision and Certainty as a Predictor of Locus of Control

Model	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound		
(Constant)	15.355	3.147		4.880	.000	9.098	21.612		
CERT	-.523	.315	-.192	-1.662	.100	-1.148	.103	.823	1.215
INDEC	.059	.051	.132	1.145	.256	-.043	.161	.823	1.215

a. Dependent Variable: LOC

Post Hoc Analysis

In an effort to explain the connection between race and the variables of motivation level, locus of control, attributional style, and career indecision/certainty, post hoc analyses were conducted. These analyses were conducted to provide for further understanding of the differences between black and white students with respect to the hypotheses from research question two. Linear regressions for each of the analyses were conducted with race as the dependent variable and the other variables listed above as the independent predictor variables for each analysis. An alpha of .05 was assumed for all of the post hoc analyses.

Motivational Style as a Predictor of Race

To detect the difference between Black and White students on the variable of motivational level a linear regression was performed. Race served as the dependent variable, and motivation level (motivation) served as the predictor variable. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 8.8% of the variation (see table 29) in the dependent criterion $F(1, .496) = 0.496, p = .484$ (see table 30). The confidence intervals around the b weights included zero as a probable value, so a value of zero was probable among possible values (see table 31). This suggests that the results for the independent variable probably do not predict or explain the dependent variable.

Table 29

Model Summary for Motivation Level as a Predictor of Race

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.088a	.008	-.008	.50370

a. Predictors: (Constant), Motivation

b. Dependent Variable: Race

Table 30

ANOVA for Motivation Level as a Predictor of Race

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.126	1	.126	.496	.484a
Residual	16.238	64	.254		
Total	16.364	65			

a. Predictors: (Constant) Motivation

b. Dependent Variable: Race

Table 31

Coefficients for Motivation Level as a Predictor of Race

		Unstandardized	Standardized		95%		
		Coefficients	Coefficients		Confidence		
				Interval for			
				B			
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	1.640	.271		6.063	.000	1.100	2.180
LOC	-.007	.010	-.088	-.705	.484	-.026	.013

a. *Dependent Variable: Race*

Locus of Control as a Predictor of Race

To detect the difference between Black and White students on the variable of locus of control, a linear regression was performed. Race served as the dependent variable, and locus of control (LOC) served as the predictor variable. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 6.1% of the variation (see table 32) in the dependent criterion $F(1, .242) = 0.242, p = .625$ (see table 33). The confidence intervals around the b weights included zero as a probable value, so a value of zero was probable among possible values (see table 34). This

suggests that the results for the independent variable probably does not predict or explain the dependent variable.

Table 32

Model Summary for Locus of Control as a Predictor of Race

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.061a	.004	-.012	.50470

a. Predictors: (Constant), LOC

b. Dependent Variable: Race

Table 33

ANOVA for Locus of Control as a Predictor of Race

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.062	1	.062	.242	.625a
Residual	16.302	64	.255		
Total	16.364	65			

a. Predictors: (Constant) LOC

b. Dependent Variable: Race

Table 34

Coefficients for Locus of Control as a Predictor of Race

		Unstandardized				Standardized	95%	
		Coefficients				Coefficients	Confidence	
						Interval for		
						B		
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	
(Constant)	1.364	.194		7.031	.000	.977	1.752	
LOC	-.006	.013	.061	.491	.625	-.020	.033	

a. *Dependent Variable: Race*

Attributional Style as a Predictor of Race

To detect the difference between black and white students on the variable of locus of attributional style, a linear regression was performed. Race served as the predictor variable, and attributional style (CASQ) served as the dependent variable. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 4.3% of the variation (see table 35) in the dependent criterion $F(1, .118) = 0.118, p = .733$ as (see table 36). The confidence intervals around the b weights included zero as a probable value, so a value of zero was probable among possible values (see table 37). This suggests that the results for the independent variable probably do not predict or explain the dependent variable.

Table 35

Model Summary for Attributional Style as a Predictor of Race

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.043a	.002	-.014	.50445

a. Predictors: (Constant), CASQ

b. Dependent Variable: Race

Table 36

ANOVA for Attributional Style as a Predictor of Race

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.030	1	.030	.118	.733a
Residual	16.032	63	.254		
Total	16.062	64			

a. Predictors: (Constant) CASQ

b. Dependent Variable: Race

Table 37

Coefficients for Attributional Style as a Predictor of Race

		Unstandardized				Standardized	95%	
		Coefficients				Coefficients	Confidence	
						Interval for		
						B		
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	
(Constant)	1.477	.111		13.360	.000	1.256	1.698	
LOC	-.006	.017	-.043	-.343	.733	-.040	.028	

a. *Dependent Variable: Race*

Career Indecision/Certainty as a Predictor of Race

To detect the difference between Black and White students on the variable of career indecision/certainty a linear regression was performed. Race served as the dependent variable, and career indecision (INDEC) and career certainty (CERT) served as the predictor variables. Overall, the linear composite of the independent variables entered into the regression procedure predicted (or explained) 12.9% of the variation (see table 38) in the dependent criterion $F(2, .473) = .2365$ $p = .626$ (see table 39). The confidence intervals around the b weights for CERT include zero as a probable value, so a value of zero was probable among possible values (see table 40). The confidence intervals around the b weights for INDEC contains zero as a probable value, so a value of zero was probable among possible values (see table 40). This suggests that the results for the independent variables CERT and INDEC probably do not predict or explain the dependent variable. Both of the independent variables are excluded from the model so no further analysis is necessary.

Table 38

Model Summary for Career Indecision and Certainty as a Predictor of Race

Model	R	R Square	Adjusted R Squared	Std. Error of the Estimate
1	.129a	.017	-.019	.50711

a. Predictors: (Constant), INDEC and CERT

b. Dependent Variable: Race

Table 39

ANOVA for Career Indecision and Certainty as a Predictor of Race

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.243	2	.122	.473	.626a
Residual	14.401	56	.257		
Total	14.644	58			

a. Predictors: (Constant) INDEC and CERT

b. Dependent Variable: Race

Table 40

Coefficients for Career Indecision and Certainty as a Predictor of Race

Model	Unstandardized		Standardized			95%	
	Coefficients		Coefficients			Confidence Interval for B	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	1.894	.455		4.166	.000	.983	2.804
CERT	-.005	.007	-.101	-.718	.476	-.019	.009
INDEC	-.043	.050	-.122	-.863	.392	-.142	.056

a. Dependent Variable: Race

Limitations

In this study one of the limitations was the sample used due to the size of the sample and the fact that the sample was from one school in a small city which was a suburb of a major metropolitan area. These factors limit the generalizability of the study. The sample size also created a limitation with the data analysis because repeated linear regressions had to be performed which increased family-wise error. The issue of family wise error arises when multiple procedures are performed on the same sample data set, and it could result in false positive findings which could be deemed as significant (Nichols & Hayasaka, 2003). Due to this limitation the results of the study need to be considered with caution as an exploration of the phenomena.

Another limitation was the exclusion of other races besides Black and White students. It may have been fruitful to consider the position of Asian students who as the “model minority” are grouped on the same side of the achievement gap as White students (Thernstrom & Thernstrom, 2004). It would have also been helpful to examine Hispanic and Native American students who typically fall on the same side of the achievement gap as Black students (Thernstrom & Thernstrom, 2004). It limited the study to examine only Black versus White students because it did not fully examine the characteristics of the racial gap in achievement.

The student population used was also a limitation due to the population being all students taking World Cultural Geography. This excluded students who may have taken other elective courses which could have changed the results of this study. The use of the World Cultural Geography students may lead to the limitation of other variables. The

variables of socio-economic status, or achievement level for example, may have been more uniform among the students which may have had a larger impact on the variables examined in this study.

Response rate was also an issue due to the 45.9% of students who actually participated out of the students approached for the study. This makes it difficult to make recommendations for career interventions. In addition, the students may have experienced fatigue while taking the assessments due to the length of time it took to administer the assessments (on average 35 minutes). The packets distributed began with the demographic sheet then the Five Item Polarized Motivation Scale, the CASQ-R, the CNISE, and then the CDS. This could have resulted in student responses which were not well thought out compared to the assessments given in the beginning of the packet, and could have possibly skewed the career indecision/certainty results.

Summary

This chapter was an exploration of the analysis of the data and the results of the analyses in reference to the null hypotheses presented. The primary and research question was addressed using the ANOVA and Mann Whitney procedures for career indecision and career certainty which resulted in an analysis which could not disprove Hypothesis 1. The secondary research question and the other six hypotheses were addressed using a series of linear regression analyses which resulted in no predictive relationships for Hypothesis 2 and Hypothesis 7. Hypotheses 3 and 5 were rejected because the analysis revealed a probable predictive relationship between the respective

variables. Hypothesis 4 was partially rejected with certainty being a probable predictor of motivation level and indecision having no predictive power. Hypothesis 6 was also partially rejected with indecision being a probable predictor of attributional style and certainty having no predictive power.

Post hoc analyses were also performed to examine the relationship between the race variable and the variables motivational level, locus of control, attributional style, and career indecision/certainty. The post hoc analyses resulted in no predictive relationships between race and the aforementioned predictive variables. In addition, the limitations of this study were explained and explored which related to the sample's size and characteristics, as well as the data analysis procedures. The following chapter will summarize the methodology and research findings, discuss the implications of the research question results, draw conclusions about the study, and make recommendations for future research.

CHAPTER FIVE: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

The purpose of this study was to assess the level of career indecision in Black versus White students and explore the differences which may exist in the area of career indecision in answer to legislation in the state of Florida requiring ninth grade students to make decisions about career choice as it related to high school major selection. Additionally, this study attempted to identify the relationships which may exist between the factors of motivation, attributional style, locus of control, and career indecision. Professional School Counselors need to be aware of the needs of students surrounding career to ensure the career education curriculum is sufficient to service all students and prevent exacerbating the affects of the achievement gap.

This study was underpinned with a review of literature which highlighted the history of career education and juxtaposed the development of career education with the Black experience in America. It was revealed through the literature review that as major strides were being made in career education (Zunker, 2002), Black Americans were experiencing racism and oppression (Ciment, 2001). This reality set the stage for the current achievement gap in education as reviewed in the literature.

Through exploring career theory as it pertains to barriers (Gottfredson, 2002, Lent, et al. 2002) and how these barriers may differ in Black students as opposed to White students this study was shaped to examine motivation level and its impact on career indecision.

The career theory literature also highlights self-efficacy when discussing barriers to career (Lent, et al., 2002). Factors deemed relational in fully understanding self-efficacy are attributional style or the way one attributes successes and failures in their life, locus of control issues, and self-worth (Seifert, 2004). As a result this study chose to measure locus of control issues as they relate to attributional style, motivation level, and ultimately career indecision.

In an effort to examine the factors in this study two research questions were posed with the primary research question being: Is there a difference in career indecision/certainty between Black and White 9th grade suburban students? The null hypothesis created to address this question was:

- Hypothesis 1: There is no difference in career indecision/certainty in Black and White 9th grade suburban students.

The secondary research question in this study was: What relationship exists among motivation, attributional style, locus of control, and career indecision/certainty? The resulting null hypotheses framed for this question were:

- Hypothesis 2: There is no relationship among motivation level and attributional style.
- Hypothesis 3: There is no relationship among motivation level and locus of control.
- Hypothesis 4: There is no relationship among motivation level and career indecision/certainty.
- Hypothesis 5: There is no relationship among attributional style and locus of control.

- Hypotheses 6: There is no relationship among attributional style and career indecision/certainty.
- Hypothesis 7: There is no relationship among locus of control and career indecision/certainty.

Summary of Methodology

This study had another aim which was to inform the implementation of legislation recently enacted in the state of Florida requiring ninth grade students to make decisions concerning career choice through the selection of high school majors. This made it appropriate to use a high school's ninth grade class with a diverse student population to give more robust results about students who are at the developmental stage this legislation impacts.

The sample was obtained using purposive sampling procedures from a suburban public magnet school. Students in all 13 of the World Cultural Geography courses offered at the high school were approached because the class is inherently a ninth grade course. The first 220 students were given an opportunity to participate and 101 completed the consent process, however, only 95 students participated in the study. In the sample 55 (57.9%) were female, and 40 (42.1%) were male. 36 (37.9%) were Black, 30 (31.6%) were White, 7 (7.4%) were Asian, 21 (22.1%) were Hispanic, and 1 (1.1%) were Native American.

The collection of data began with an explanation and invitation to participate in the study along with the distribution of parental consent letters and student assent

forms. The data collection was done through the use of a packet consisting of a demographics sheet in an effort to obtain data which may impact the study and may be outside of the scope of this particular study. The packet also contained The Five-Item Polarized Motivation Scale to determine students' motivation level concerning career choice, The Children's Attributional Style Questionnaire- Revised (CASQ-R) to determine attributional style, the Children's Nowicki Strickland Internal External Locus of Control Scale (CNISE) to determine the students' locus of control, and The Career Decision Scale to determine students' career indecision/certainty.

The statistical procedures used to address the research questions and hypotheses were conducted using the Statistical Package for the Social Sciences (SPSS). Tables were created to describe the study's population and report the demographic data obtained from the students. Other analyses were an ANOVA to address the primary research question and Hypothesis 1 and determine if there was a difference in career indecision between Black versus White students, and a Mann Whitney test to determine if there was a difference in career certainty among Black and White students. Linear regressions were performed to address the secondary research question and Hypothesis 2 through Hypothesis 7 and determine the relationships between the variables of motivation level, attributional style, locus of control, and career indecision/certainty. Post hoc analyses were done in an effort to elucidate any differences among Black and White students in respect to each variable in the study (motivation level, attributional style, locus of control, and career indecision/certainty).

Summary of Research Findings

Research Question

The primary research question explored in this study was: Is there a difference in career indecision/certainty between Black and White 9th grade suburban students? This question was tested at the alpha level of .05 and no significance was found between career indecision and race meaning there was no difference in career indecision level between Black and White students. When testing certainty which was the other dimension of the Career Decision Scale there was no difference between Black and White students career certainty level.

The secondary research question was: What relationship exists among motivation, attributional style, locus of control, and career indecision/certainty? This question was tested at a .05 alpha level as well. This question was tested by a series of linear regressions with multiple outcomes which will be reported for each hypothesis.

Research Hypotheses

Hypothesis 1: There is no difference in career indecision/certainty in Black and White 9th grade suburban students.

To address this hypothesis an ANOVA and a Mann Whitney test was performed. For the ANOVA race was used as the independent variable with career indecision as the dependent variable, For the Mann Whitney test race was the grouping variable and career certainty was the dependent variable. For career indecision no statistically

significant difference was found between Black and White students. There also was no significant difference among the groups for career certainty using the Mann Whitney test. This means that the null hypothesis was not disproved for Hypothesis 1.

Hypothesis 2: There is no relationship among motivation level and attributional style.

To address this hypothesis a linear regression was performed with motivation level as the dependent and attributional style as the independent or predictor variable. The Five Item Polarized Motivation Scale raw score was used for the motivation level score, and the CASQ-R raw score was used as the attributional style score. The analysis of these variables showed that there was no statistical significance between motivational level and attributional style and that it was unlikely that attributional style predicted motivation level in students. Based on these results the hypothesis could not be disproved.

Hypothesis 3: There is no relationship between motivation level and locus of control.

To address this hypothesis a linear regression was performed with motivation level as the dependent variable and locus of control as the independent or predictor variable. The Five Item Polarized Motivation Scale raw score was used as the motivation level score, and the CNISE raw score was used as the locus of control score. The analysis of these variables revealed that there was no statistical significance between motivation level and locus of control which means that it is unlikely that locus

of control is a predictor of motivation level. Based on these results the hypothesis could not be disproved.

Hypothesis 4: There is no relationship among motivation level and career indecision/certainty.

To address this hypothesis a linear regression was performed with motivation level as the dependent variable and career indecision and career certainty as the independent or predictor variables. The Five Item Polarized Motivation Scale raw score was used as the motivation level score, the CDS certainty scale subscale score was used as the certainty score, and the CDS subscale indecision score was used as the indecision score. The analysis of these variables revealed that there was a statistical significance between motivation level and certainty. Indecision although statistically significant, could not be included in the model due to the b weight containing zero as a value. This means that it is likely that career certainty is a predictor of motivation level; however, the same could not be said about career indecision. According to the model, career certainty predicted roughly 41.3% of the variation in motivation level. Based on these results the hypothesis was rejected with caution due to the lack of significance for career indecision.

Hypothesis 5: There is no relationship among attributional style and locus of control.

To address this hypothesis a linear regression was performed with attributional style as the dependent variable and locus of control as the independent or predictor variable. The CASQ-R raw score was used as the attributional style score, and the

CNISE raw score was used as the locus of control score. The analysis of these variables revealed that there was a statistical significance between attributional style and locus of control which means that it is likely that locus of control is a predictor of attributional style. Locus of control accounted for 45.8% of the variation in attributional style. Based on these results the hypothesis would be rejected.

Hypothesis 6: There is no relationship among attributional style and career indecision/certainty.

To address this hypothesis a linear regression was performed with attributional style as the dependent variable and career indecision and career certainty as the independent or predictor variables. The CASQ-R raw score was used as the attributional style score, the CDS certainty scale subscale score was used as the certainty score, and the CDS subscale indecision score was used as the indecision score. The analysis of these variables revealed that there was a statistical significance between attributional style and indecision. However, there was no statistical significance between attributional style and certainty. This means that it is likely that career indecision is a predictor of attributional style. However, the same could not be said about career certainty. According to the model career indecision predicted roughly 6.3% of the variation in attributional style. Based on these results the hypothesis was rejected with caution due to the lack of significance for career certainty.

Hypothesis 7: There is no relationship among locus of control and career indecision/certainty.

To address this hypothesis a linear regression was performed with locus of control as the dependent variable and career indecision and career certainty as the independent or predictor variables. The CNISE raw score was used as the locus of control score, the CDS certainty scale subscale score was used as the certainty score, and the CDS subscale indecision score was used as the indecision score. The analysis of these variables revealed that there was a statistical significance between the variable locus of control in regards to career certainty and indecision. Despite being statistically significant the variables career certainty and career indecision could not be included in the model due to the b weight containing zero as a value. This means that it is unlikely that career certainty or career indecision is a predictor of attributional style. Based on these results the hypothesis could not be disproved.

Post Hoc Analyses

The first post hoc analysis performed was to detect if there was a difference between Black and White students in regards to motivation level. To address this hypothesis a linear regression was performed with race as the dependent variable and motivation level as the independent or predictor variable. Race was defined through self-report on the demographics sheet, coded numerically into a score, and was limited to Black and White students. The Five Item Polarized Motivation Scale raw score was used for the motivation level score. The analysis of these variables showed that there was no statistical significance between race and motivation level, and that it was unlikely that motivation level predicted racial background in students.

The second post hoc analysis performed was to detect if there was a difference between Black and White students in regards to locus of control. To address this hypothesis a linear regression was performed with race as the dependent variable and locus of control as the independent or predictor variable. Race was defined through self-report on the demographics sheet, coded numerically into a score, and was limited to Black and White students. The CNISE raw score was used for the locus of control score. The analysis of these variables showed that there was no statistical significance between race and locus of control, and that it was unlikely that locus of control predicted racial background in students.

The third post hoc analysis performed was to detect if there was a difference between Black and White students in regards to attributional style.

To address this hypothesis a linear regression was performed with race as the dependent variable and attributional style as the independent or predictor variable. Race was defined through self-report on the demographics sheet, coded numerically into a score, and was limited to Black and White students. The CASQ-R raw score was used as the attributional style score. The analysis of these variables showed that there was no statistical significance between race and attributional style, and that it was unlikely that attributional style predicted racial background in students.

The fourth post hoc analysis performed was to detect if there was a difference between Black and White students in regards to career indecision/certainty. This analysis goes a step beyond the primary research question because it explores the

predictive nature between race and career indecision/certainty instead of just identifying differences between the two groups.

To address this hypothesis a linear regression was performed with race as the dependent variable and career certainty and career indecision as the independent or predictor variables. Race was defined through self-report on the demographics sheet, coded numerically into a score, and was limited to Black and White students. The CDS certainty scale subscale score was used as the certainty score, and the CDS subscale indecision score was used as the indecision score. The analysis of these variables showed that there was no statistical significance between race and career certainty or career indecision. This means it was unlikely that career certainty or career indecision predicted racial background in students.

Discussion of Findings of Research Question and Hypotheses

The findings in this study were counter to what this researcher anticipated based on the literature on achievement gap (Dervarics, Pluviose, 2006; Haycock, 2001; Hoffman, Liagas, & Snyder, 2003; Jacobson, Olsen, Rice, & Sweetland, 2001; Lee, 2004; Ogbu, 2003; Thernstrom & Thernstrom, 2004), and the underpinning career theory (Gottfredson, 2002; Lent, et al., 2002). The literature suggests that an achievement gap exists between Black and White students, and with the knowledge that blacks have special boundaries to career exploration such as issues surrounding racial discrimination and lack of parental support (Constatine, et al., 2005). Also the literature shows that Blacks are completing high school at a lower rate than their white

counterparts, and that on many levels professionally there is a gap between Black and White employees when it comes to promotions and position (Hoffmann, et al, 2003). This author thought there would be a difference detected in the level of career indecision between Black and White 9th grade suburban students.

This finding is significant because it opens the door to exploring what some of the commonalities may be between students of many races. It is an important plight to fight to close the gap in achievement, and there may be some areas where other factors are larger issues besides the issue of race alone. One of the confounding issues is that of capital (Orr, 2003). It may not be that race is the most predictive factor, but perhaps wealth or human/social capital (Orr, 2003).

Another issue surrounding these findings for career indecision/certainty and race is the use of the Career Decision Scale. Some of the literature states that the CDS's use of a total score may not be all telling when it comes to career indecision (Roejewski, 1994; Vondracek, Hostetler, Schulenberg, Shimzu, 1990). It is believed that the scale may actually be divided into indecision types (Roejewski, 1994). If this is the case it could have an impact on the results of this study, because perhaps it is not the level of career indecision which needs to be examined, but the type when it comes to differences in Black versus White students.

When examining the secondary research question there were only significant predictive relationships between certainty and motivation, indecision and attributional style, and locus of control and attributional style. When looking at a student's level of career certainty it directly correlated to their level of motivation. This may mean that as

students are more certain of a career path they will be more motivated to explore career. The relationship between career indecision and attributional style was also direct with students who had a higher level of career indecision also having a higher external attributional style. This result is what has already been reported in the literature (Lease, 2003). The other significant relationship was locus of control as a predictor of attributional style having a direct correlation. The more external one's locus of control is the more external their attributional style will be. This also is supported by the literature (Lease, 2003).

The post hoc analyses were done to determine if there were any other predictive relationships in this study in reference to race. It was uncovered that attributional style, locus of control, motivation level, and career indecision/certainty are not predictors of a student's racial background. This may be due to the fact that the process of uncovering the differences is more complex and has more dimensions than just race. Socio-economic status, human/social capital and wealth issues, along with gender may need to be considered in conjunction with the variable of race. The sample size of this study would not have accommodated such an analysis.

Conclusions Based on Data Analyses

A number of conclusions may be drawn from this study as a result of the data analysis conducted, and they are listed as follows:

1. There is no difference in career indecision/certainty between Black and White 9th grade suburban students based solely on race. This means that one

- cannot assume that due to a student's racial background they will be experiencing a certain level of career certainty or indecision. Other factors will need to be explored as well.
2. Additionally, attributional style is not a reliable predictor of motivation level in 9th grade students.
 3. Similarly, locus of control orientation is not a reliable predictor of motivation level.
 4. However, career certainty is a predictor of a student's motivation level towards career, although the student's career indecision is not a predictor of their motivation level. This means that a student may be motivated towards career exploration regardless of their level of indecision, however, they will be more likely to be motivated if they are more certain about career.
 5. Also, it was found that locus of control is a predictor of attributional style. This means that the more external a student's locus of control is the more external their attributional style will be as well.
 6. However, attributional style is not predicted by career certainty, but it is predicted by career indecision. This means that the more external a student's attributional style is the more undecided they are concerning career, but a student's level of certainty does not indicate their attributional style.
 7. In addition, career certainty and career indecision do not predict a student's locus of control.

8. It was also uncovered that a student's racial background cannot be predicted by motivation level, attributional style, locus of control, or career indecision/certainty. This means other factors may need to be considered to explain a student's disposition on the abovementioned variables.

Implications of Findings

The implications for the findings in this study relate to the practice of legislators, administrators, professional school counselors (PSCs), and teachers. This study was originally done to answer the legislation enacted by the state of Florida requiring students to declare majors as ninth graders. It seems that although there may not be a direct impact on the achievement gap due to this legislation, students at this age level are still very undecided and confused about the prospect of career choice. Keeping this in mind we must think about what end results we are looking for when we enact legislation. The purpose of the aforementioned legislation is to increase student graduation rates, and make students more directed and engaged in the process of schooling. However, the results of this legislation in the eyes of students are the introduction of confusion and panic when it comes to the already daunting process of entering high school.

In the process of conducting this study this researcher was able to think critically about the way in which the political system addresses problems in the school system. Instead of consulting the educators who make an impact in the everyday lives of the students affected by their policies, legislators sit in closed quarters and design

programming which sounds good as a platform, but has little practical use in the district or in the classroom. Once the policy is enacted a back door is put in place to cover any inadequacies of the policy. If it is so advantageous for students to declare majors, why is it not necessary for students to complete the requirements of their major in order to graduate? This in effect makes the policy something that looks effective on paper, but it has not changed what we do on the district level. Students were already encouraged to explore careers and select elective courses to prepare them for their post-secondary education/training. If there was not enough focus on career education it could have been addressed through professional development activities informed by educators. Admittedly, it is too soon to tell how this legislation will effect students in the long run, however, this researcher would be remiss to not address the process used by legislators to make decisions without consulting the major stakeholders in education.

Administrators should use the results of this study toward the implementation of career programming that emphasizes options and exploration for students, and one of the key stakeholders in that process is the professional school counselor. PSCs are instrumental in the implementation process of this legislation and armed with the results of this study PSCs can create focused career exploration programs with data driven interventions. Through the use of the Career Decision Scale (CDS), PSCs can assess a baseline of student certainty and indecision. Using the results of this study a PSC would also be able to predict the student's level of motivation towards exploring career and could design group and individual activities to draw uninterested students into the process, and capture the excitement of students who are already intrigued by the

process. PSCs could also use the CDS results to predict a student's attributional style. Knowing how a student attributes successes and failures will also be important in shaping interventions because activities can be developed to increase a student's attribution of success internally. This can be done with the tenants of Self-worth theory in mind highlighting high challenge activities which lead to successful outcomes and increased student self-efficacy.

Teachers also have interventions which may result from this study's findings. Working hand in hand with the administration, and PSCs teachers can assist with implementing a comprehensive career exploration program, and are the first point of contact as the instructors of the courses for student questions concerning career and how it may be impacted by the things they are learning each day in the classroom.

This study is also a tool to empower practitioners. This researcher is currently a practicing school counselor. Through the process of conducting this study this researcher has realized the voice of the practitioner, and how this voice can be organized to influence policy. There have been conversations in education about the professionalism of education, namely teachers. One of the ways the profession can be legitimized is through the thoughtful coordination of leadership to have likeminded agendas. In this way educators can come to the table with politicians and create productive working relationships to benefit students. This process has been underway through the professional organizations in education such as the National Education Association (NEA), or the American School Counseling Association (ASCA). However, you will find those in the profession who do not see the need in being members of their

respective professional organizations. If changes are to be made in the system educators must answer the call to professional duty not only to the students, but to the profession through organized membership in professional organizations. It is in this way that educators can create meaningful partnerships with higher education and government through action research and informed policy implementation.

Recommendations for Future Research

Recommendations for future research based on this study are as follows:

1. Replication of this study with a larger sample size to allow for more robust statistical analysis to be conducted.
2. The analysis of the difference in career indecision type between Black and White students to determine if there may be an underlying issue threatening to further the achievement gap in education.
3. A study can be conducted that takes the role of other races and their places in the achievement gap to determine a more holistic picture of the difference between races and career indecision/certainty.
4. A study can be conducted that further examines the relationship between social/human capitals, wealth and career indecision/certainty among students.

5. A study could be conducted longitudinally to see if there are changes among students of different races over time in reference to career indecision/certainty. For instance there may not be a difference among races for students in the ninth grade, but is there a change as students matriculate through high school and go on to post-secondary education.
6. A qualitative study could be conducted in the form of ethnography of students of different races to uncover the underlying themes of career indecision/certainty to provide a more rich explanation of the phenomena among the races.

Concluding Summary and Comments

This researcher was influenced to conduct this study due to the experience as a PSC and seeing firsthand how government impacts education without consulting educators or students. The good intentions of policy makers can at times cause upheaval in the school system. Armed with the literature on the achievement gap (Dervarics, Pluviose, 2006; Haycock, 2001; Hoffman, Liagas, & Snyder, 2003; Jacobson, Olsen, Rice, & Sweetland, 2001; Lee, 2004; Ogbu, 2003; Thernstrom & Thernstrom, 2004) this researcher thought it would be worthwhile to explore how current legislation may be in fact increasing the gap in achievement for students. It was also determined that it would be worthwhile to explore the relationship between other factors which may impact career indecision such as motivation level, locus of control, and attributional

style. It was also deemed prudent to explore the difference between races concerning the aforementioned factors. While this study is strictly exploratory in nature it is hoped that it will provide a springboard for future research in this area, and it is hoped that its findings will inform programming and policies at the school level. It is felt by this researcher that the purpose of this study has been achieved.

**APPENDIX A
SAMPLE ASSENT SCRIPT**



Department of Child, Family,
and Community Sciences
Nicola M. Johnson, Doctoral Student

Child Assent Form

My name is Nicola Johnson I am a student at the University of Central Florida. I would like to start by asking you to fill out the form asking for information about you as a student. Then I would like you to answer the questions on the following forms dealing with career decision making, and other factors related to school and attitudes towards school. You may stop at any time and you will not have to answer any questions you do not want to answer. If you have any objections to doing this please do not fill out the forms. Also you will not be required to put your names on any documents. The areas asking for your name are marked out to remind you not to place your name on any document for your anonymity. A code is being used to keep all of the assessments together, but not to identify you as a participant. If you would like to participate please sign this form below. If you have any questions please ask.

Student Signature

Date

APPROVED BY University of Central Florida Institutional Review Board <i>Nancy Davis 10/26/06</i> IRB Designated Reviewer

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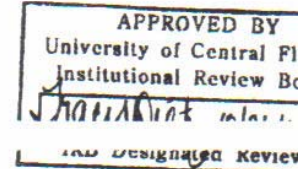
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APPENDIX B
SAMPLE PARENTAL CONSENT FORM



Department of Child, Family,
and Community Sciences
Nicola M. Johnson, Doctoral Student

Parent Consent Form



Dear Parent/Guardian:

I am a graduate student at the University of Central Florida under the supervision of faculty member, Dr .B. Grant Hayes, conducting research on the career indecision in 9th grade high school students. This research will also include assessing the level of motivation, attributional style, and locus of control of students involved. The purpose of this study is to assess whether there is a difference in high school student's level of career indecision, and how motivation, attributional style (what one feels is responsible for events in their lives), and locus of control (how much internal control one feels they have over their lives) relate to career indecision. Currently there is legislation in Florida (HB 7087) requiring 9th grade students to declare majors, and this research may assist in informing the development of career education programming for high school counselors.

These results may not directly help your child today, but may benefit future students. The children will be asked to fill out a demographics questionnaire, an assessment that will scale their career decidedness, motivation level, attributional style, and locus of control.

At the end of the study, all identifying information of the students (such as signed assent forms) will be kept in a locked box separate from the assessments and questionnaires for three years and then properly disposed. Students will not be asked to provide their names on the assessments to ensure their identity be kept anonymous to the extent provided by law. Each set of assessments will have code numbers for analysis purposes, but not for identification of the student participants. Results will only be reported in the form of group data. Participation or nonparticipation in this study will not affect the student's grades or placement in any programs.

You and your child have the right to withdraw consent for your child's participation at any time without consequence. There are no known risks or immediate benefits to the

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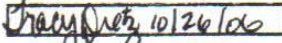
University of
**Central
Florida**

Department of Child, Family,
and Community Sciences
Nicola M. Johnson, Doctoral Student

participants. No compensation is offered for participation. Group results of this study will be available in January upon request. If you have any questions about this research project, please contact me at (321) 439-6117 or my faculty supervisor, Dr. B. Grant Hayes, at (407) 823-5391.

office, University of Central Florida Office of Research, Orlando Tech Center, 12443 Research Parkway, Suite 207, Orlando, FL 32826. The hours of operation are 8:00 am until 5:00 pm, Monday through Friday except on University of Central Florida official holidays. The phone number is (407) 823-2901.

Sincerely,
Nicola M. Johnson
Doctoral Student

APPROVED BY University of Central Florida Institutional Review Board  IRB Designated Reviewer

I have read the procedure described above.
I voluntarily give my consent for my child, to participate in Nicola Johnson's study of career indecision, motivation, attributional style, and locus of control.

Parent/Guardian Date

- I would like to receive a copy of the procedure description.
 I would not like to receive a copy of the procedure description.

2nd Parent/Guardian Date
(or Witness if no 2nd Parent/Guardian)

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APPENDIX C
SAMPLE OF DEMOGRAPHICS QUESTIONNAIRE

Number: 100

Please place an "X" next to your selected answer or fill in the blank as indicated.

1. Gender: _____
2. Race: Asian/Pacific Islander
 Black
 Hispanic
 Native American
 White
3. Are you on free lunch: Yes
 No
4. Are you on reduced lunch: Yes
 No
5. Grade Point Average: _____
6. Are you in ESOL(English for Speakers of Other Languages): Yes
 No
7. Are you taking any Exceptional Education courses (ESE): Yes
 No
8. How many honors classes are you taking: _____
9. How many AP classes are you taking: _____
10. What is (was) your mother's highest level of education (Please check one)?
- Don't Know (0)
 Less than High School (Please indicate 9, 10, 11)
 High School Diploma (12)
 1 year college (13)
 2 years college (14)
 AA/ AS Degree (14.1)
 3 years of college (15)
 4 years of college (16)
 BA/BS degree (16.1)
 1 year Graduate/Professional school (17)
 2 years Graduate /Professional School (18)
 Graduate/ Professional School Degree (18.1)
11. What is (was) your father's highest level of education (Please check one)?
- Don't Know (0)
 Less than High School (Please indicate 9, 10, 11)
 High School Diploma (12)
 1 year college (13)
 2 years college (14)
 AA/ AS Degree (14.1)

- 3 ~~years~~ of college (15)
- 4 years of college (16)
- BA/BS degree (16.1)
- 1 year Graduate/Professional school (17)
- 2 years Graduate /Professional School (18)
- Graduate/ Professional School Degree (18.1)

12. What is your mother's age: _____

13. What is your father's age _____

14. What is (was) your mother's main occupation? (Please check one):

- Education (teacher, principal, etc.)
- Social Services (including religious)
- Finance/Insurance/Real Estate
- Hospitality/ Recreation (including restaurants)
- Retail (clothing, shoes, etc.)
- Medical /Health Services
- Media/Entertainment
- Other Professional (lawyer, engineer, etc.)
- Government/ Military/ Public Service (city, state, federal, etc.)
- Travel/Transportation
- Unemployed
- Unsure

15. What is (was) your father's main occupation? (Please check one):

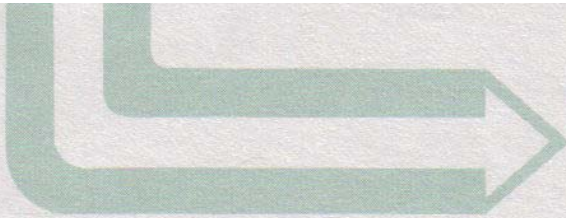
- Education (teacher, principal, etc.)
- Social Services (including religious)
- Finance/Insurance/Real Estate
- Hospitality/ Recreation (including restaurants)
- Retail (clothing, shoes, etc.)
- Medical /Health Services
- Media/Entertainment
- Other Professional (lawyer, engineer, etc.)
- Government/ Military/ Public Service (city, state, federal, etc.)
- Travel/Transportation
- Unemployed
- Unsure

16. Total estimated family income (Exp. \$50,000): \$ _____

17. What do you think is your socioeconomic status (Please check one):

- Poverty Level
- Lower Class
- Lower Middle Class
- Middle Class
- Upper Middle Class
- Upper Class

APPENDIX D
SAMPLE CAREER DECISION SCALE



CAREER DECISION SCALE

THIRD REVISION (1976)

by Samuel H. Osipow, Clarke G. Carney, Jane Wine
Barbara Yanico, and Maryanne Koschier

NAME _____

DATE OF BIRTH _____ AGE _____

CLASS/GRADE _____ SEX _____

This questionnaire contains some statements that people commonly make about their educational and occupational plans. Some of the statements may apply to you; others may not. Please read through them and indicate how closely each item describes you in your thinking about a career or an educational choice by circling an appropriate number on the answer sheet. An example is given below:

	Exactly like me	Very much like me	Only slightly like me	Not at all like me
I am excited about graduating and going to work.	4	3	2	1

If you are excited about going to work and feel no hesitation about it you would circle "4" to indicate the description is exactly the way you feel. If the item is very close, but not exactly the way you feel — for example, you're generally excited about going to work after you graduate, but are experiencing some minor concerns about it — you would circle the number "3." You would circle "2" if the item describes you in some ways, but in general is more unlike than like your feelings; for example, if you are generally more concerned than excited about going to work after graduation. Finally, you would circle "1" if the item does not describe your feelings at all; that is, you are experiencing a great deal of concern and no excitement about graduation and work.

Please be sure to give only *one* response to each item and answer *every* item.

PAR Psychological Assessment Resources, Inc.

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REMEMBER — 4 is *exactly like me*, 3 is *very much like me*, 2 is *only slightly like me*, and 1 is *not at all like me*.

CIRCLE ANSWER
Like Me Not Like Me

- | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|
| 1. I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice. | 4 | 3 | 2 | 1 |
| 2. I have decided on a major and feel comfortable with it. I also know how to go about implementing my choice. | 4 | 3 | 2 | 1 |
| 3. If I had the skills or the opportunity, I know I would be a _____ but this choice is really not possible for me. I haven't given much consideration to any other alternatives, however. | 4 | 3 | 2 | 1 |
| 4. Several careers have equal appeal to me. I'm having a difficult time deciding among them. | 4 | 3 | 2 | 1 |
| 5. I know I will have to go to work eventually, but none of the careers I know about appeal to me. | 4 | 3 | 2 | 1 |
| 6. I'd like to be a _____, but I'd be going against the wishes of someone who is important to me if I did so. Because of this, it's difficult for me to make a career decision right now. I hope I can find a way to please them and myself. | 4 | 3 | 2 | 1 |
| 7. Until now, I haven't given much thought to choosing a career. I feel lost when I think about it because I haven't had many experiences in making decisions on my own and I don't have enough information to make a career decision right now. | 4 | 3 | 2 | 1 |
| 8. I feel discouraged because everything about choosing a career seems so "iffy" and uncertain; I feel discouraged, so much so that I'd like to put off making a decision for the time being. | 4 | 3 | 2 | 1 |
| 9. I thought I knew what I wanted for a career, but recently I found out that it wouldn't be possible for me to pursue it. Now I've got to start looking for other possible careers. | 4 | 3 | 2 | 1 |
| 10. I want to be absolutely certain that my career choice is the "right" one, but none of the careers I know about seem ideal for me. | 4 | 3 | 2 | 1 |
| 11. Having to make a career decision bothers me. I'd like to make a decision quickly and get it over with. I wish I could take a test that would tell me what kind of career I should pursue. | 4 | 3 | 2 | 1 |
| 12. I know what I'd like to major in, but I don't know what careers it can lead to that would satisfy me. | 4 | 3 | 2 | 1 |

REMEMBER — 4 is *exactly like me*, 3 is *very much like me*, 2 is *only slightly like me*, and 1 is *not at all like me*.

CIRCLE ANSWER
Like Me Not Like Me

13. I can't make a career choice right now because I don't know what my abilities are. 4 3 2 1
14. I don't know what my interests are. A few things "turn me on" but I'm not certain that they are related in any way to my career possibilities. 4 3 2 1
15. So many things interest me and I know I have the ability to do well regardless of what career I choose. It's hard for me to find just one thing that I would want as a career. 4 3 2 1
16. I have decided on a career, but I'm not certain how to go about implementing my choice. What do I need to become a _____ anyway? 4 3 2 1
17. I need more information about what different occupations are like before I can make a career decision. 4 3 2 1
18. I think I know what to major in, but I feel I need some additional support for it as a choice for myself. 4 3 2 1
19. None of the above items describe me. The following would describe me better: (write your response below).

	Total 1-2	Total 3-18	Normative Group	% ile
Cer				
Ind				

APPENDIX E
SAMPLE CHILDREN'S ATTRIBUTIONAL STYLE QUESTIONNAIRE

Nicola, Thanks for your interest in the measure. You definitely have my permission to use this measure. Let me know if you need anything else from me, njk

Nicola Johnson wrote:

> Greetings Dr. Kaslow,

>

> I am a doctoral candidate at the University of Central Florida and I am
> working on my dissertation entitled, "The Difference in the Level of
> Motivation, Attributional Style, Locus of Control, and Career Indecision
> between Black and White 9th Grade Students". I found your Children's
> Attributional Style Questionnaire (CASQ-R) in the Measures for Clinical
> Practice: Couples, Families, and Children Volume 1 3rd Edition, and I
> wanted permission to use your questionnaire in my research. Please let
> me know what steps to take to use the scale in my study.

>

> Warmest Regards,

>

> Nicola M. Johnson

>

> Nicola M. Johnson

> President, Holmes Scholars

> Doctoral Student

> University of Central Florida

> College of Education

> Counselor Education

> P.O. Box. 161250

> Orlando, Florida 32816-1250

> Phone: 321-439-6117

> Fax: 407-823-5135

> nmjohnso@mail.ucf.edu

CASQ-R

1. You get an "A" on a test.
 - A. I am smart.
 - B. I am good in the subject that the test was in.

2. Some kids that you know say they do not like you.
 - A. Once in a while people are mean to me.
 - B. Once in a while I am mean to other people.

3. A good friend tells you that he hates you.
 - A. My friend was in a bad mood that day.
 - B. I wasn't nice to my friend that day.

4. A person steals money from you.
 - A. That person is not honest.
 - B. Many people are not honest.

5. Your parents tell you something that you make is very good.
 - A. I am good at making some things.
 - B. My parents like some of the things I make.

6. You break a glass.
 - A. I am not careful enough.
 - B. Sometimes I am not careful enough.

7. You do a project with a group of kids and it turns out badly.
 - A. I don't work well with people in that particular group.
 - B. I never work well with groups.

8. You make a new friend.
 - A. I am a nice person.
 - B. The people I meet are nice.

9. You have been getting along well with your family.
 - A. I am usually easy to get along with when I am with my family.
 - B. Once in a while I am easy to get along with when I am with my family.

10. You get a bad grade in school.
A. I am not a good student.
B. Teachers give hard test.
11. You walk into a door and you get a bloody nose.
A. I wasn't looking where I was going.
B. I have been careless lately.
12. You have a messy room.
A. I did not clean my room that day.
B. I usually do not clean my room.
13. Your mother makes you your favorite dinner.
A. There are a few things that my mother will do to please me.
B. My mother usually likes to please me.
14. A team that you are on loses a game.
A. The team members don't help each other when they play together.
B. That day the team members didn't help each other.
15. You do not get your chores done at home.
A. I was lazy that day.
B. Many days I am lazy.
16. You go to an amusement park and you have a good time.
A. I usually enjoy myself at amusement parks.
B. I usually enjoy myself in many activities.
17. You go to a friend's party and you have fun.
A. Your friend usually gives good parties.
B. Your friend gave a good party that day.
18. You have a substitute teacher and she likes you.
A. I was well behaved during class that day.
B. I am almost always well behaved during class.
19. You make your friends happy.
A. I am usually a fun person to be with.
B. Sometimes I am a fun person to be with.

20. You put a hard puzzle together.
- A. I am good at putting puzzles together.
 - B. I am good at doing many things.
21. You try out for a sports team and do not make it.
- A. I am not good at sports.
 - B. The other kids who tried out were very good at sports.
22. You fail a test.
- A. All tests are hard.
 - B. Only some tests are hard.
23. You hit a home run in a ball game.
- A. I swung the bat just right.
 - B. The pitcher threw an easy pitch.
24. You do the best in your class on a paper.
- A. The other kids in my class did not work hard on their papers.
 - B. I worked hard on the paper.

*Copied with permission from Measures for Clinical Practice Vol. 1, Couples, Families, and Children, 3rd Ed., (2000),
The Free Press.*

APPENDIX F
SAMPLE CHILDREN'S NOWICKI-STRICKLAND INTERNAL EXTERNAL
LOCUS OF CONTROL SCALE

Hi Nicola,

I'm attaching a copy of the manual and answer key for the children's scale...if you need past reference list let me know. You have my permission to use my scale...and I'd be most interested in what you might find. Good luck in your work.

Steve Nowicki

----- Original Message -----

From: Nicola Johnson

To: snowick@emory.edu

Sent: Wednesday, June 07, 2006 5:22 PM

Subject: Locus of Control Scale

Hello Dr. Nowicki,

I am a doctoral candidate at the University of Central Florida and I am working on my dissertation entitled, "The Difference in the Level of Motivation, Attributional Style, Locus of Control, and Career Indecision between Black and White 9th Grade Students". I found your Locus of Control Scale in the Measures for Clinical Practice: Couples, Families, and Children Volume 1 3rd Edition, and I wanted permission to use your scale in my research. Please let me know what steps to take to use the scale in my study.

Warmest Regards,

Nicola M. Johnson

Nicola M. Johnson

President, Holmes Scholars

Doctoral Student

University of Central Florida

College of Education

Counselor Education

P.O. Box. 161250

Orlando, Florida 32816-1250

Phone: 321-439-6117

Fax: 407-823-5135

nmjohnso@mail.ucf.edu

101

CNSIE

YES NO

- | | | |
|-----|-----|---------------------------------------------------------------------------------------------------------------------|
| ___ | ___ | 1. Do you believe that most problems will solve themselves if you just don't fool with them? |
| ___ | ___ | 2. Do you believe that you can stop yourself from catching a cold? |
| ___ | ___ | 3. Are some kids just born lucky? |
| ___ | ___ | 4. Most of the time, do you feel that getting good grades means a great deal to you? |
| ___ | ___ | 5. Are you often blamed for things that just aren't your fault? |
| ___ | ___ | 6. Do you believe that if somebody studies hard enough he or she can pass any subject? |
| ___ | ___ | 7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway? |
| ___ | ___ | 8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do? |
| ___ | ___ | 9. Do you feel that most of the time parents listen to what their children have to say? |
| ___ | ___ | 10. Do you believe that wishing can make good things happen? |
| ___ | ___ | 11. When you get punished, does it usually seem it's for no good reason at all? |
| ___ | ___ | 12. Most of the time, do you find it hard to change a friend's (mind) opinion? |
| ___ | ___ | 13. Do you think that cheering more than luck helps a team to win? |
| ___ | ___ | 14. Do you feel that it's nearly impossible to change your parent's mind about anything? |
| ___ | ___ | 15. Do you believe that your parents should allow you to make most of your own decisions? |
| ___ | ___ | 16. Do you feel that when you do something wrong there's very little you can do to make it right? |
| ___ | ___ | 17. Do you believe that most kids are just born good at sports? |
| ___ | ___ | 18. Are most of the other kids your age stronger than you are? |
| ___ | ___ | 19. Do you feel that one of the best ways to handle most problems is just not to think about them? |
| ___ | ___ | 20. Do you feel that you have a lot of choice in deciding who your friends are? |
| ___ | ___ | 21. If you find a four leaf clover, do you believe that it might bring you good luck? |

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- ___ ___ 22. Do you often feel that whether you do your homework has much to do with what kind of grades you get?
- ___ ___ 23. Do you feel that when a kid your age decides to hit you, there's little you can do to stop him or her?
- ___ ___ 24. Have you ever had a good luck charm?
- ___ ___ 25. Do you believe that whether or not people like you depends on how you act?
- ___ ___ 26. Will your parents usually help you if you ask them to?
- ___ ___ 27. Have you felt that when people were mean to you it was usually for no reason at all?
- ___ ___ 28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
- ___ ___ 29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?
- ___ ___ 30. Do you think that kids can get their own way if they just keep trying?
- ___ ___ 31. Most of the time, do you find it useless to try to get your own way at home?
- ___ ___ 32. Do you feel that when good things happen they happen because of hard work?
- ___ ___ 33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?
- ___ ___ 34. Do you feel that it's easy to get friends to do what you want them to?
- ___ ___ 35. Do you usually feel that you have little to say about what you get to eat at home?
- ___ ___ 36. Do you feel that when someone doesn't like you there's little you can do about it?
- ___ ___ 37. Do you usually feel that it's almost useless to try in school because most other children are just plain smarter than you are?
- ___ ___ 38. Are you the kind of person who believes that planning ahead makes things turn out better?
- ___ ___ 39. Most of the time, do you feel that you have little to say about what your family decides to do?
- ___ ___ 40. Do you think it's better to be smart than to be lucky?

APPENDIX G
SAMPLE FIVE ITEM POLARIZED MOTIVATION SCALE

My feelings about choosing a career or major:

Motivated						Unmotivated
7	6	5	4	3	2	1
Excited						Bored
7	6	5	4	3	2	1
Interested						Uninterested
7	6	5	4	3	2	1
Involved						Uninvolved
7	6	5	4	3	2	1
Looking forward to it						Dreading it
7	6	5	4	3	2	1

*Adapted from Richmond, V.P. (1990). Communication in the classroom: Power and motivation. *Communication Education*, 39. 181-195.

APPENDIX H
DEMOGRAPHIC CHARACTERISTICS OF STUDY SAMPLE,
SOCIOECONOMIC STATUS, PARENTAL EDUCATION LEVEL, AND
PARENTAL OCCUPATION

Table 41

Socioeconomic Status

Class Level	Frequency	Valid Percent
1 Poverty level	1	1.2
2 Lower class	1	1.2
3 Lower middle class	7	8.2
4 Middle class	54	63.5
5 Upper middle class	19	22.4
6 Upper class	3	3.5
Total	85	100.0

Table 42

Parental Education Level

Education Level	Father Level	Valid Percent	Mother Level	Valid Percent
Don't Know	44	47.3	37	38.9
Less than High School	11	11.8	13	13.7
High School Diploma	16	17.2	23	24.2
1 year college	5	5.4	4	4.2
2 years college	9	9.7	5	5.3
AA/AS degree	1	1.1	1	1.1
3 years college	2	2.2	2	2.1
4 years college	1	1.1	5	5.3
BA/BS degree	0	0	1	1.1
1 year Graduate/Professional School	2	2.2	1	1.1
2 years Graduate/Professional School	1	1.1	2	2.1
Graduate Professional Degree	1	1.1	1	1.1
Totals	93	100.0	95	100.0

Table 43

Parental Occupation

Occupation	Father Occupation	Valid Percent	Mother Occupation	Valid Percent
Unsure	15	16.3	10	10.9
Education	1	1.1	7	7.6
Social Services	3	3.3	2	2.2
Finance/Insurance	4	4.3	7	7.6
Real Estate				
Hospitality	2	2.2	5	5.4
Restaurants				
Retail	3	3.3	6	6.5
Medical Health	5	5.4	11	12.0
Services				
Media	0	0	1	1.1
Entertainment				
Other	16	17.4	8	8.7
Professional (Lawyer, Engineer, etc)				
Government Military	8	8.7	1	1.1
Public Service				

Occupation	Father	Valid	Mother	Valid
	Occupation	Percent	Occupation	Percent
Travel	3	3.3	12	13.0
Transportation				
Unemployed	21	22.8	17	18.5
Total	92	100.0	92	100.0

APPENDIX I
STUDY APPROVAL PROTOCOLS, UNIVERSITY OF CENTRAL
FLORIDA IRB APPROVAL FORM, SEMINOLE COUNTY PUBLIC
SCHOOLS RESEARCH REQUEST APPROVAL, CERTIFICATE OF
COMPLETION OF UCF IRB TRAINING REFERENCES



Office of Research & Commercialization

October 30, 2006

Nicola Johnson
c/o B. Grant Hayes, Ph.D.
University of Central Florida
Department of Child, Family and Community Science
ED 308E
Orlando, FL 32816-1250

Dear Nicola:

With reference to your protocol #06-3904 entitled, "The Study and Comparison of the Level of Motivation, Attributional Style, Locus of Control, and Career Indecision between Black and White 9th Grade Suburban Students," I am enclosing for your records the approved, expedited document of the UCFIRB Form you had submitted to our office. **This study was approved on 10/27/2006. The expiration date for this study will be 10/26/2007.** Should there be a need to extend this study, a Continuing Review form must be submitted to the IRB Office for review by the Chairman or full IRB at least one month prior to the expiration date. This is the responsibility of the investigator.

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board through use of the Addendum/Modification Request form. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur.

Should you have any questions, please do not hesitate to call me at 407-823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

A handwritten signature in cursive script that reads 'Joanne Muratori'.

Joanne Muratori
(FWA00000351 Exp. 5/13/07. IRB00001138)

Copies: IRB File
B. Grant Hayes, Ph.D.

JM:jt

12201 Research Parkway • Suite 501 • Orlando, FL 32826-3246 • 407-823-3778 • Fax 407-823-3299

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THE UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

406 2004

PRINCIPAL INVESTIGATOR(S): Nicola J. Johnson
(Supervisor – B. Grant Hayes, Ph.D.)

PROJECT TITLE: The Study and Comparison of the Level of Motivation, Attributional Style, Locus of Control, and Career Indecision between Black and White 9th Grade Suburban Students

- New project submission
- Continuing review of lapsed project # _____
- Study expires
- Initial submission was approved by full board review but continuing review can be expedited
- Suspension of enrollment email sent to PI, entered on spreadsheet, administration notified _____
- Resubmission of lapsed project # _____
- Continuing review of # _____
- Initial submission was approved by expedited review

Chair

Expedited Approval

Dated: 10/26/06
Cite how qualifies for expedited review: minimal risk and #7

Exempt

Dated: _____
Cite how qualifies for exempt status: minimal risk and _____

Expiration
Date: 10/26/07

IRB Reviewers:

Signed: Tracy G. Dietz
Dr. Tracy Dietz, Chair

Signed: _____
Dr. Craig Van Slyke, Vice-Chair

Signed: _____
Dr. Sophia Dziegielewski, Vice-Chair

Complete reverse side of expedited or exempt form

- Waiver of documentation of consent approved
- Waiver of consent approved
- Waiver of HIPAA Authorization approved

NOTES FROM IRB CHAIR (IF APPLICABLE): _____



SEMINOLE COUNTY
PUBLIC SCHOOLS

WILLIAM VOGEL, Ed.D.
Superintendent

Educational Support Center
400 E. Lake Mary Boulevard
Sanford, Florida 32773-7127

RONALD L. PINNELL, Ed.D.
*Executive Director of
Secondary Education*

RAYMOND L. GAINES
*Executive Director of
Secondary Education*

Telephone: (407) 320-0039

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Suncom: 351-0038

Visit Our Web Site
www.scps.k12.fl.us

September 27, 2006

Ms. Nicola M. Johnson
209 Springview Drive
Sanford, FL 32773

Dear Ms. Johnson:

I am in receipt of the proposal and supplemental information that you submitted for permission to conduct research in the Seminole County Public Schools. After review of these documents, it has been determined that you are granted permission to conduct the study described in these documents under the conditions described herein.

Each school principal has the authority to decide if he/she wishes to participate in your study or if it is appropriate to release any requested information. Therefore, your first order of business is to contact the principal(s) of the school(s) that you wish to involve in your research to explain your project and seek permission to conduct the research at that particular school.

If necessary you are expected to make appointments in advance to accommodate the administration and/or staff for research time. Furthermore, any processing or comparison of data will be your responsibility and shall not impact our Testing Department.

Please forward a summary of your project to my office upon completion.
Good Luck!

Sincerely,

Ronald L. Pinnell, Ed.D.
Executive Director
Secondary Education

CITI Course in The Protection of Human Research Subjects

Thursday, May 25, 2006

**CITI Course Completion Record
for Nicola Johnson**

To whom it may concern:

On-5/25/2006, *Nicola Johnson* (username=nmjohnso; Employee Number=N0425321) completed all *CITI Program* requirements for the *Basic CITI* Course in The Protection of Human Research Subjects.

Learner Institution: *University of Central Florida*

Learner Group: *Group 2.*

Learner Group Description: *Social / Behavioral Research Investigators and Key Personnel*

Contact Information:

Gender: Female

Department: Counselor Education

Which course do you plan to take?: Social & Behavioral Investigator Course Only

Role in human subjects research: Principal Investigator

Mailing Address:

209 Springview Dr

Sanford

Florida

32773

United States

Email: nmjohnso@mail.ucf.edu

Office Phone: 321-439-6117

Home Phone:

The Required Modules for Group 2. are:	Date completed
Introduction	05/25/06
History and Ethical Principles - SBR	05/25/06
Defining Research with Human Subjects - SBR	05/25/06
The Regulations and The Social and Behavioral Sciences -	05/25/06

https://www.citiprogram.org/members/courseandexam/certificate_print.asp?strKeyID=9DC4... 5/25/06

SBR	
Assessing Risk in Social and Behavioral Sciences - SBR	05/25/06
Informed Consent - SBR	05/25/06
Privacy and Confidentiality - SBR	05/25/06
Research with Prisoners - SBR	05/25/06
Research with Children - SBR	05/25/06
Research in Public Elementary and Secondary Schools - SBR	05/25/06
International Research - SBR	05/25/06
Internet Research - SBR	05/25/06
HIPAA and Human Subjects Research	05/25/06
Conflicts of Interest in Research Involving Human Subjects	05/25/06
UCF	05/25/06

Additional optional modules completed: **Date completed**

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and unauthorized use of the CITI course site is unethical, and may be considered scientific misconduct by your institution.

Paul Braunschweiger Ph.D.
 Professor, University of Miami
 Director Office of Research Education
 CITI Course Coordinator

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