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The influence of self-esteem and selected demographic characteristics on the academic achievement of freshman students in the College of Agriculture at a Research-Extensive University

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THE INFLUENCE OF SELF-ESTEEM AND SELECTED DEMOGRAPHIC
CHARACTERISTICS ON THE ACADEMIC ACHIEVEMENT
OF FRESHMAN STUDENTS IN THE COLLEGE OF AGRICULTURE
AT A RESEARCH-EXTENSIVE UNIVERSITY

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The School of Human Resource Education
and Workforce Development

by

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May 2010

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This dissertation is dedicated to the memory of my grandparents Mary Anna Paxton Blanchard and Albert Cyril Blanchard, Sr. and my father Albert Cyril Blanchard, Jr. They loved me without condition.

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Mrs. Charlotte Robertson so kindly and efficiently typed and formatted this document for me. I sincerely thank my new friend for her assistance. I have a deep appreciation for freshman students in the College of Agriculture at the Research-Extensive University where this study was conducted. While complete confidentiality has been promised, I thank these young people for their participation.

It is with deep love and admiration that I thank my dear husband Camile for challenging me years ago to enter the classroom to begin a graduate program. My children John and Mary are now adults and our family has grown to include our son-in-law Odie and two wonderful little

girls, our granddaughters Katherine and Abbagayle. They are constant reminders to me of the words that the Psalmist wrote “. . . I am fearfully and wonderfully made” (Psalm 139:14). With this promise we can esteem ourselves not because of performance, but because of who we are--- God’s creation.

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ABSTRACT

The primary purpose of this study was to determine if a relationship existed between self-esteem and academic achievement among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.

The sample of the study was all students at one selected Research-Extensive University enrolled in the Introduction to Agriculture course which was a requirement for agriculture students at the freshman level. Three instruments were used for data collection. The Adult Form of the Coopersmith Inventory was administered at two data collection points at the beginning and end of the first semester of college enrollment. A researcher-designed questionnaire was used to collect demographic information. A third instrument was a recording form on which data from the Office of the University Registrar were downloaded and stored.

No significant relationship was found between self-esteem at the beginning of the first semester of college and the first semester grade point average of students at the freshman level. Using multiple regression analysis, a significant model was identified which explained 9.9% of the variance in academic achievement. The variable that had the greatest impact on academic achievement was membership in a departmental student organization. The variables whether or not the father completed a graduate degree, membership in service organizations, and participation in sports also entered the model. Multiple regression analysis was also used to identify a significant model that explained 17.3% of the variance in self-esteem at the end of the first semester of college enrollment. The variable with the greatest impact on self-esteem was age. Other variables which contributed significantly were membership in social sororities/fraternities, membership in religious organizations, Hispanic Race, African American Race, and Caucasian Race.

The researcher concluded that there was no relationship between academic achievement and self-esteem. The researcher recommended the development of an instrument to measure self-attitudes regarding constructs specific to the college student. This instrument would serve the function of measuring self-esteem for this intermittent stage in the lives of many young people.

CHAPTER 1

INTRODUCTION

Rationale

Importance of Agriculture

Agriculture is a very important enterprise in the modern world. Nowhere is the vital nature of this industry more clearly conveyed than through the fact that “every 3.6 seconds someone dies of hunger” (The world hunger problem, 2009).

A young truck farmer in the southern part of Louisiana was recently interviewed regarding his success as a produce farmer. The reporter questioned the young man as to why he had chosen his particular livelihood. He responded, “We are actually raising food for people to live. It’s a trivial thing to some people but it’s a big thing to us” (Lockhart, 2007, p. 1). Indeed, in a land of plenty where fast food and “take-out” have become the norm for some, Americans may have the tendency to forget or fail to acknowledge the importance of agriculture in today’s economy, political climate, or personal well-being of individuals who live in the United States of America. They may not consider the power which results when a country can provide food for its people.

From the earliest time in history humans fed themselves exclusively through hunting wild animals and gathering wild plants (Diamond, 1998). In his book *Guns, Germs, and Steel*, Diamond (1998) denoted this period as a time approximately seven million years ago. He (Diamond, 1998) contended that within the last 11,000 years some people began domesticating wild animals and plants and consuming the livestock and crops that resulted from their efforts. Thus, they turned to food production. He believes the timing of food production due to geographical differences has led to a contrast in the fates of continents. The resulting fates have

led to advantages for some. Considering the chain of events, those who ultimately domesticated many plant and animal species could provide more consumable calories. Denser human populations and more sedentary lifestyles followed. Higher population densities and good food provided surpluses of food that equated to division of labor, resulting in invention or technological advances. Many of the technological advances were designed for war and power (Diamond, 1998). In addition to food, crops were of value as sources of natural fibers for making clothing, blankets, nets, rope, and other products (Diamond, 1998).

Such a discussion leads one to consider the developmental theory of Abraham Maslow (1954). Maslow (1954) conceived of different types of needs being in a pyramid-type structure with physiological needs at the base of the pyramid. The higher level needs in ascending order included safety needs, love and belonging needs, esteem needs, and self-actualization needs. As a lower level need was satisfied, then one could strive for the next higher level. The development of fine arts would address the needs levels of esteem and self-actualization. However, this could not be accomplished without first satisfying the basic physiological needs of food and shelter and the need for safety. Certainly the agricultural endeavor of food production addresses the basic physiological needs of individuals in today's global society.

The present world population is approximately 6 billion people. One farmer in the United States produces the food to feed 129 people, of which 101 live in the United States and 28 abroad. Considering the abundance of agricultural products today, the food and fiber industry generates approximately 20% of the United States' gross national product and 20% of the nation's employment (Facts about American Agriculture, 2007). There are more than 972 million acres of farmland nationwide. The United States produces 42.7% of the world's soybeans, 34.4% of the world's corn, and 11.6% of the world's wheat. The United States also

produces 21.2% of the world's cotton. The United States exports 43.5 billion dollars in agricultural products annually. The United States imports 26.4 billion dollars in agricultural products annually, with a positive net trade balance of 17.1 billion dollars (Facts about American Agriculture, 2007). In addition, Americans spend a smaller portion of their income on food than any other people in the world, leaving more money for them to spend on housing, transportation, clothing, and other areas (Facts about Agriculture, 2007).

Impact of Education Regarding Agriculture

The United States of America is a democracy; and, in a democracy, government is by the people as demonstrated by their participation in the voting mechanism which contributes to laws and the formulation of policies. An uninformed voter is a dangerous voter, and this can apply to the area of agriculture.

A discussion of education about agriculture becomes one of agricultural literacy. The importance of agricultural literacy was discerned years ago by Mayer and Mayer (1974) when they stated that “the failure of our secondary schools and liberal arts colleges to teach even rudimentary courses on agriculture means that an enormous majority, even among well-educated Americans, are totally ignorant of an area of knowledge basic to their daily style of life, to their family economics, and indeed to their survival” (p. 84). Others have commented that in recent years issues related to agriculture have become more compelling for the general public as well as the profession of agricultural education (Powell, Agnew, & Trexler, 2008). This sentiment has been echoed by Pope (1990) who elaborated that the “real need for an agriculturally literate society is knowledge of the impact the industry, as a whole, has upon our daily lives’ (p. 23). Russell, McCracken, and Miller (1990) have concluded that “most people still perceive ‘agriculture’ as synonymous with ‘farming’” (p. 13). In addition, youth and the public in

general have a poor understanding of the role of agriculture in the history of the United States, as well as the quality of life of the nation's citizens and the economic well being of the nation (Russell et al., 1990).

An example of the impact of agriculture on the daily lives of Americans is that of the Alar Scare in 1989 involving the use of the chemical daminozide (Alar) which keeps fruit firm and full-colored beyond its natural shelf-life. The issue of safety began when a nonprofit group reported Alar could cause cancer. This led to a news campaign which eventually became a news storm after the story appeared on the CBS News program "60 Minutes" (Egan, 1991). As a result Washington apple growers, producers of about 60% of the nation's apple crop, lost at least 25 million dollars in the six months after the initial uproar. This estimation made by the United States Department of Agriculture indicated there were no precise figures to determine how much of the loss was contingent on how many farmers were forced out of business due to the Alar Scare. There was also no indication of how much factors such as bad weather and the poor quality of fruit could have contributed to losses (Egan, 1991). The issue led farmers and broadcasters to the Federal courtroom. It has been stated that "of all the foods that have come under scrutiny in recent years, few have attracted as much attention or emotion as apples" (Egan, 1991). Scientists have continued to debate the relative risks of Alar. However, the government has never concluded whether the use of the chemical posed a serious cancer risk (Egan, 1991). This example serves to emphasize that it is incumbent upon each individual to learn about agriculture in order to make educated decisions regarding the barrage of competitive information regarding agriculture and agricultural products to which he/she may be exposed. Not only does education about agriculture allow the individual to make informed personal choices, it also provides for the development of a wise consumer and responsible citizen, which enhances the

individual's engagement in the democratic process. In so doing, the foundation for decisions regarding the act of casting one's vote or communication with legislators concerning issues relating to the agricultural industry contribute to the formation of policy affecting food security in the United States and other countries of the world.

The Alar example also relates to those concerns of leaders in the field of agricultural education during the 1980s. It was understood that education about agriculture was of the utmost importance to all students from kindergarten through the secondary level of education, and that agriculture was a topic that commanded too much attention "to be taught only to the relatively small percentage of students considering careers in agriculture and pursuing vocational agriculture studies" (National Academy of Sciences, 1988, p.1). At a time when changing demographics and urbanization, rapid gains in worldwide agriculture production capacity, and domestic farm and trade policies were considered some of the challenges to American agriculture, there was the recognition of a need to adjust policies and also for the educational system to meet the challenges presented. In 1985, a study of agricultural education was initiated, and the National Research Council established the Committee on Agricultural Education in Secondary Schools upon the request of the United States Secretaries of Agriculture and Education. The committee's task was to "assess the contributions of instruction in agriculture to the maintenance and improvement of United States agricultural productivity and economic competitiveness here and abroad" (National Academy of Sciences, 1988, p. v). It was this committee that developed "the idea of 'agricultural literacy'--the goal of education about agriculture" (National Academy of Sciences, 1988, p. v). The committee envisioned "that an agriculturally literate person's understanding of the food and fiber system would include its history and its current economic, social, and environmental significance to all Americans"

(National Academy of Sciences, 1988, p. 8-9). In their report that focused on both agricultural literacy and vocational agriculture, the committee used the terms “agriculture” and “agricultural system” interchangeably in a definition of agriculture to:

. . . encompass the production of agricultural commodities, including food, fiber, wood products, horticultural crops, and other plant and animal products. The terms also include the financing, processing, marketing, and distribution of agricultural products; farm production supply and service industries; health, nutrition, and food consumption; the use and conservation of land and water resources; development and maintenance of recreational resources; and related economic, sociological, political, environmental, and cultural characteristics of the food and fiber system (National Academy of Sciences, 1988, p. vi).

The committee further stated that “an understanding of basic concepts and knowledge spanning and uniting all of these subjects define the term ‘agricultural literacy’” (National Academy of Sciences, 1988, p. vi). They considered this understanding to be conveyed as a complement to instruction in academic subjects as well as those included in vocational agricultural education. Their reasoning was built upon a finding of the report that only a small percentage of students at that time were enrolling in vocational agricultural programs in high schools across the United States. As a consequence most high school students had limited or no access to vocational agricultural or agricultural literacy programs. They found minority students in urban schools had the least access to such programs. One of their recommendations involved some systematic instruction about agriculture which began in kindergarten and continued through the twelfth grade, with the suggestion that much of the instruction could be incorporated into existing courses (National Academy of Sciences, 1988). Russell et al. (1990) included university students at large as a group who should receive agricultural literacy instruction, taking into account students in universities who do not have agricultural colleges or departments.

Need for Education in Agriculture

In addition to the need for the education of people about agriculture, there is a need to educate young people to become leaders in the field of agriculture. Ball, Garton, & Dyer (2001) have commented “change has been a defining characteristic of agriculture” (p. 54), and consider education as a means to address the issue of the preparation of high caliber individuals ready to function in a rapidly changing agricultural industry. This brings to the forefront the responsibilities placed upon colleges of agriculture. As colleges of agriculture contribute to the industry via research and development, it is also critical that their contribution includes an environment which provides for students the opportunity for the enhancement of academic performance. Russell (1993) has called for a strong commitment to youth development in order to maintain strong programs of teaching and research in colleges of agriculture. He (Russell, 1993) has warned of the serious “brain drain” (p. 1) away from agriculture that he perceived to be underway at the time of his writing. He suggested colleges of agriculture should redirect their focus to the development of youth as a major human resource required for a viable agricultural industry in the years that were to follow (Russell, 1993). It becomes incumbent upon those involved in the education of agriculture students to discover ways of predicting academic success of students in order to meet the challenges presented.

Secondary agricultural education has been one of the channels for conveying knowledge stimulating the interest of young people in the area of agriculture. According to the National FFA Organization more than 11,000 teachers are involved in delivering “an innovative, cutting-edge and integrated curriculum to students” (National FFA Organization, 2007, p. 1). During the period from 2005-2006, the number of Departments of Agricultural Education/Agribusiness within the 50 states and Virgin Islands ranged from one in Puerto Rico to 1,048 in the state of

Texas. While there is no membership in Puerto Rico, 82% of the departments in the state of Texas have membership in the National FFA Organization. Students participate and learn about career opportunities, leading some to become interested in college preparation. Nevertheless, a shortage of qualified agriculture teachers remains the greatest challenge facing FFA and agricultural education (National FFA Organization, 2007), and some have cautioned enrollments in colleges of agriculture nationally have declined in recent years despite increased opportunities in the food and agricultural sciences for college graduates (Russell, 1993). This causes concern for the extension system as its employees are drawn from colleges of agriculture and the major portion of its clientele is involved in agriculture (Russell, 1993).

Many young people do enter post secondary programs in agriculture in colleges and universities throughout the United States. Various disciplines lead to degrees in such areas as agribusiness, agronomy and environmental management, biological and agricultural engineering, food science and technology, animal science, nutritional sciences, horticulture, and human resource education (Louisiana State University, 2007). The completion of bachelor of science degrees in these areas furthers the development of students to assume roles as leaders, extension educators, and scholars in the field of agriculture. As such they may positively influence the lives of individuals, families, communities, and countries around the world.

In addition to specific scholarly interests or emphasis of study, students in the colleges of agriculture throughout the nation have concerns which may be similar to those of other students in the university setting. Most students enrolled in colleges and universities are members of Generation X with birthdates between 1961 and 1981, and the Millennial generation born between 1982 and 2002. Millennials have been influenced by a cultural environment which has instilled in them many positive qualities as they have progressed through the developmental

process. Typically, they are hardworking and have been socialized to be successful in life by supportive parents. These parents are often viewed as overprotective because they have hovered over their children at every stage of the educational process, including preparation for college (Elam, Stratton, & Gibson, 2007).

Students of the Millennial generation do, however, present challenges to teachers, counselors, and administrators at the secondary and postsecondary levels. Some researchers have concerns regarding the interpersonal skills of members of this generation and the shortening of their attention spans due to the over-reliance on communications technology (Elam et al., 2007). According to Elam et al. (2007), members of the Millennial generation are also noted to “have high expectations for their own success as undergraduates” (p. 24). They (Elam et al., 2007) consider it to be incumbent upon those in counseling and advising fields to ensure direct and accessible educational paths for these students which are directed toward self-fulfillment. However, a discussion of the Millennial generation should not imply that all individuals of this age group have experienced equal levels of personal, social, or financial support (Elam et al., 2007).

Factors Impacting Academic Success of Current College Students

Thought to possess great positive potential for society (Elam et al., 2007), the young people of the Millennial generation demonstrate the influence of a variety of factors which effect academic achievement. Some have related academic performance to parental values and differences in parenting styles (Dornbush, Ritter, Leiderman, Roberts, & Farleigh, 1987). The authoritarian pattern has been described as “being high in demandedness on the part of the parents and low in parental responsiveness to the child” (Dornbusch et al., 1987, p. 1245). Permissive parents are those who are tolerant and accepting toward the impulses of the child,

using as little punishment as possible and allowing considerable self-regulation by the child. Authoritative parenting advocates an expectation of mature behavior from the child and clear setting of standards by the parents. Rules and standards are firmly enforced, but the parent encourages the child's independence and individuality. Open communication exists between parent and child. The research of Dornbusch et al. (1987) found authoritarian and permissive parenting styles negatively associated with grades. Authoritative styles were shown to be positively associated with grades.

Self-esteem has been considered a factor associated with academic achievement. Judgment of self is first made at home by a child where he/she perceives a positive self-worth or self-esteem due to the conveyance of unconditional love by warm loving parents or a diminished sense of self-worth due to parental rejection (Coopersmith, 1981). As interaction with parents expands to others outside the family, the development of self-esteem continues as the child enters school. His/her opinion of self may be dependent upon the child's perceptions of the teacher's reactions to his/her performance and the performance of his/her classmates (Crocker & Cheeseman, 1988). As an individual continues to evaluate self, Coopersmith (1981) believed that sometime preceding middle childhood a person arrives at a general appraisal of his/her worth. The subjective appraisal remains fairly constant over a period of several years (Coopersmith, 1981).

The literature records investigations of the relationship between academic achievement and self-esteem. Researchers Robinson-Awana, Kehle, and Jenson (1986) examined female and male sex role perceptions and self-esteem relative to academic competence. In the study boys, when responding to a self-esteem inventory instrument, reported significantly higher levels of

self-esteem than girls. Both sexes when considering girls as a homogenous group credited boys with higher self-esteem.

Raffini (1986) addressed student apathy and its impact on the individual student's achievement, noting students may be forced to choose apathy as a defense when self-worth is threatened. He (Raffini, 1986) believed the measurement and evaluation system which compares one student's performance with another contributes to apathy and noninvolvement. Rather than being labeled average or below average some students choose to stop trying (Raffini, 1986).

Researchers have also considered the influence of such variables as group membership (Crocker, 2002), place of residence including college residential halls (Bettencourt, Charlton, Eubanks, Kernahan, & Fuller 1999), and participation in learning communities called Freshman Interest Groups (FIGs) (Ball et. al., 2001) and their implications for successful academic performance in the college setting. Writers agreed that it is essential to target specific variables that have the potential to enhance academic performance and student retention. Lutta (2008) has written of the "all important first semester" (p. 182) in a recent study in which findings revealed retention to be significantly related to the grade point average of the first semester of college.

Colleges of agriculture have an opportunity to be a part in the shaping of the changing face of agriculture. It becomes paramount that methods of education and instruction produce highly competent and motivated individuals for a challenging future for sustainable agriculture within the United States. It will be a future which will continue to be faced with the reduction in the number of farms and ranches, increase in farm and ranch size, and a major dependence on the purchase of off-farm inputs. Continued considerations will also include environmental quality and human health issues (Bird & Ikerd, 1993).

Purpose of the Study

The primary purpose of this study was to determine if a relationship exists between the self-esteem and academic achievement of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. More specifically, the study sought to accomplish the following objectives:

1. Describe the students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on the following demographic characteristics:
 - a. Age;
 - b. Highest level of education completed by father;
 - c. Highest level of education completed by mother;
 - d. Marital status of parents;
 - e. Race;
 - f. Gender;
 - g. Place of residence during the first semester of college; and
 - h. Whether or not the student held membership in selected groups and organizations during the first semester of college.
2. Determine the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States as measured by the Adult Form of the Coopersmith Inventory.
3. Describe students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on academic achievement as measured by their first semester grade point averages.

4. Compare the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States, as measured by the Adult Form of the Coopersmith Inventory, at the beginning and the end of their first semester of college enrollment.
5. Determine if a relationship exists between academic achievement, as measured by high school grade point average, and self-esteem, as measured by the Adult Form of the Coopersmith Inventory at the beginning of the first semester of college enrollment, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.
6. Determine if a relationship exists between self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the beginning of the first semester of college enrollment, and academic achievement, as measured by the first semester of college grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.
7. Determine if a model exists explaining a significant portion of the variability in their academic achievement, as measured by the first semester grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States from the following:
 - a. Self-esteem at the beginning of the semester;
 - b. Age;
 - c. Highest level of education completed by father;
 - d. Highest level of education completed by mother;

- e. Marital status of parents;
 - f. Race;
 - g. Gender;
 - h. Place of residence during the first semester of college; and
 - i. Whether or not the student held membership in selected groups and organizations during the first semester of college.
8. Determine if a model exists explaining a significant portion of the variability in their self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the end of the first semester of college enrollment among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States from the following:
- a. Academic achievement as measured by overall high school grade point average;
 - b. Age;
 - c. Highest level of education completed by father;
 - d. Highest level of education completed by mother;
 - e. Marital status of parents;
 - f. Race;
 - g. Gender;
 - h. Place of residence during the first semester of college; and
 - i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

The college years—they are a time of excitement, transition, and adjustment. It is understood that at this point in history, there is increased necessity and for some more opportunity to attain the goal of completing a degree from a college or university. The university setting is now home to a more diverse group of young people. Authors have described the present college generation. They have discussed students' academic achievement, self-esteem, parental involvement, and the services provided by university administrators, faculty, and staff. This writer seeks to explore the literature involving these issues, beginning with a discussion of academic achievement and its significance in one's path toward the college years.

Academic Achievement

A discussion of this nature would begin with the understanding that the concept of achievement is relative to the various environments or situations in which the individual functions (Nicholls, 1984). Webster (1977) has defined achievement as “successful completion” (p. 10) and as “a result brought about by resolve, persistence, or endeavor” (p. 10). Expanding this definition, the present discussion will focus on academic achievement, with the definition of academic according to Webster (1977) stated as that “of, relating to, or associated with an academy or school especially of higher learning” (p. 6).

While the research of this writer will deal with the academic achievement of students in their first semester of enrollment at the freshman level of college, the measurement of achievement in the area of academia begins with the earliest experiences of formal education. At the primary level there are concerns regarding developmental benchmarks and their effects on

academic performance. This continues from the primary to the secondary level as evidenced by the implementation of accountability measures of such legislation as the No Child Left Behind Act of 2001 (United States Department of Education, 2002).

Educators and those involved in educational research have offered definitions of the measuring instruments used in assessing student achievement. Ary, Jacobs, and Razavieh (2002) have written “A *test* is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned” (p. 216). They continue that “this score, based on a representative sample of the individual’s behavior, indicates the extent to which the subject has the characteristic being measured” (Ary et al., 2002, p. 216). Achievement tests are used in school systems to “measure mastery and proficiency in different areas of knowledge by presenting subjects with a standard set of questions involving completion of cognitive tasks (Ary et al., 2002, p. 216). Achievement tests may also be classified as standardized tests.

Standardized tests are published tests. They are prepared by experts, cover broad academic objectives, and have established validity and reliability. Directions are given for administering the instrument as well as prescribed scoring (Ary et al., 2002). In addition, standardized tests may further be classified as norm-referenced or criterion-referenced. Norm-referenced tests permit the comparison of an individual’s performance on the test to that of other individuals. The individual’s performance is “interpreted in terms of his or her relative position in a specified reference group known as the *normative group*” (Ary et al., 2002, p. 218). As such performance is reported in terms of percentiles and standard scores, as well as similar measures (Ary et al., 2002).

Popham (2001) considered the appropriate uses of standardized achievement tests. One important use is to give parents an idea about how their children’s performances compare to that

of a national comparison group. Thus, they provide a meaningful and comparative interpretation which can be used by teacher and parent to work together for the student's best interests (Popham, 2001). In the same manner, Popham (2001) saw standardized tests of benefit to teachers who can profit from identifying the comparative strengths and weakness of their students. Due to the norm-referenced comparisons among students, Popham (2001) considered standardized tests to be ideally suited for informing decisions in fixed-quota settings. In these cases there may be more applicants than openings for special programs. He (Popham, 2001) also considered standardized achievement tests useful assessment tools for determining the use of supplemental resources. When it is determined that there has been low performance on standardized achievement tests, the allocation of supplementary funds can benefit the low performing students in these schools with the provision of additional instruction.

Popham (2001) also identified what he considers inappropriate uses of standardized achievement tests, the first being the judgment of schools chiefly on the basis of students' scores on these tests. He also considered the evaluation of teachers and promotion or retention of students due to tests scores inappropriate. Marchant (2004) echoed these concerns by commenting that although testing was originally designed to provide information regarding individual student achievement and diagnostic/prescriptive teaching efforts, these tests have become more high stakes in nature in their use for the evaluation of the success of students, teachers, schools, and school districts. He (Marchant, 2004) stressed the importance of the investigation of how well the scores reflect the quality of learning and education. While some comment it is unlikely in this high stakes era that accountability testing "will abate any time soon" (Bennett & Gitomer, 2009, p. 45), others endorse the consideration that standardized

assessment should be accommodated within a contemporary learner-centered paradigm (Gallagher, 2003).

Paramount to those students who aspire to college attendance post-high school, college entrance exams (CEE) become the focus at the secondary level. Historically college entrance testing concentrated on identifying the most academically able students for admission to selective institutions of the nation (About ACT, 2009). One of the two best known CEEs, the Scholastic Aptitude Test (SAT), now known as the Scholastic Assessment Test I (SAT I) (Camara & Echternacht, 2000), was developed by the College Entrance Examination Board (CEEB) and first administered June 23, 1926 (Lawrence, Rigol, Essen, & Jackson, 2003). Consisting of nine subtests at its inception, the SAT has evolved into an instrument which measures verbal and mathematical “reasoning” (Lawrence et al., 2003, p.1). The test has been redesigned periodically, and since 1970 its developers have emphasized the development of content that is balanced and appropriate for those of different cultural and educational backgrounds (Lawrence, et. al., 2003). The American College Testing Program, Incorporated in 1959 designed the ACT Assessment (ACT). The ACT assesses high school students’ general educational development along with their readiness for college or ability to complete college-level work (The ACT, 2009). Providing information which is helpful to colleges during the process of admitting students, it also helps students to make better decisions about which colleges to attend and choices of programs of study (About ACT, 2009).

In high school, students may also become focused on cumulative grade point average if there is the intention to further their education beyond the secondary level. The grade point average serves as a criterion measure of the student’s overall academic performance, and is considered a statistically significant predictor of future performance, academic achievement, and

success at the post secondary level of education (Merritt, 2008). Colleges and universities also use grade point averages to determine applicants' eligibility for admission. Merritt (2008) cautioned, however, grade point averages are norm-referenced within schools and are relative measurements which can vary in significance across schools, districts, and states. He concluded that admissions officers realize college success is more than just grades. Involvement in athletics, student government, arts programs, and volunteer activities may demonstrate that high school students possess personal qualities which contribute to their engagement and success in college (Merritt, 2008).

Self-Esteem Defined

In order to discuss self-esteem as it applies to academic achievement, it must first be defined in general terms. Many have their own views regarding the term. To quote Fleming and Courtney (1984), "it is not possible to address all topical issues in self-esteem research, because the literature is quite vast" (p. 404). This writer agrees as the research literature has only expanded to overwhelming proportions since that statement was written. Another author (Branden, 1997) has stated that "of all the judgments we pass in life, none is more important than the judgment we pass on ourselves" (p. 1). With these thoughts expressed, it is understandable that not all issues of self-esteem research can be discussed in the present review of literature. However, the present review will consist of related literature which will be divided into three sections. The first section will include a discussion of the definitions of self-esteem. This will be followed by a short discussion of the developmental aspects of self-esteem. It will culminate with comments regarding the variable self-esteem, along with other demographic characteristics related to the academic achievement of college students, with an emphasis on students at the freshman level of college.

Philosophers of old along with earlier psychologists and sociologists have expressed their thoughts regarding the self. William James (1890) analyzed subjective experience and what he considered the significance of the self. Writing over 100 years ago, James in his definition of a man's self stated:

In its widest possible sense, a man's Self is the sum of all that he CAN call his, not only his body and his psychic powers, but his clothes and his horses, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht and bank account. All these things give him the same emotions. If they wax and prosper, he feels triumphant; if they dwindle and die away, he feels cast down—not necessarily in the same degree for each thing, but much the same way for all (James, 1890, p. 291-292).

James (1890) added that it was difficult to draw a line between what a man called “me” and what he simply called “mine” (p. 291). He (James, 1890) also concluded that human aspirations and values had an essential role in determining whether individuals regard themselves favorably. Achievements are measured against aspirations for any given area of behavior. James (1890) proposed a formula, “Self-esteem=Success/Pretensions” (p. 310). Self-feeling is determined by the ratio of actualities to supposed potentialities. The pretensions are the denominator, and the numerator is success. If achievements approach or meet aspirations in a valued area, the result is high self-esteem. If there is a wide divergence individuals regard themselves poorly. He stressed that individuals determine those valued areas of particular significance when measuring achievement against aspirations (James, 1890).

Sociologist G. H. Mead (1934) contributed to the topic of self-esteem, elaborating on what James (1890) called the social self. Mead's concern as a sociologist dealt with the process by which an individual becomes a compatible and integrated member of his/her social group. He concluded that this process involved the internalization of the ideas and attitudes expressed by the key figures in the individual's life (Mead, 1934). The individual observed the key figures'

actions and attitudes, adopting them and expressing them as his/her own. The adoption of the ideas could take place unknowingly. Individuals come to respond to themselves and develop self-attitudes that are consistent with those expressed by others in their world who are significant to them. Mead (1934) believed individuals, regardless of their isolation or perceived independence, carried within themselves the reflecting mirrors of their social group. It was Mead's (1934) belief that as children, individuals internalize the criteria employed by the important people of their social world. They observe how they are regarded and value themselves accordingly. In this manner from childhood into adulthood if individuals place high value on themselves there have been key persons in their lives who have treated them with concern and respect. Mead (1934) was also of the opinion that if individuals hold themselves lowly, others of importance to them have treated them as inferior objects.

While the views of James and Mead concerning self-esteem were formulated relatively early in the emergence of psychology and sociology, others have expanded on their constructs. Coopersmith (1981) stated that self-esteem "refers to the evaluation which an individual makes and customarily maintains with regard to himself" (p. 4-5). This evaluation expressed an attitude of approval or disapproval, and indicates the extent to which the individual believes himself/herself to be "capable, significant, successful, and worthy" (Coopersmith, 1981, p. 5). Coopersmith (1981) stated "in short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself" (p. 5). He (Coopersmith, 1981) directed the reader to certain features of his definition, the first of which is the notation that his definition centers upon a relatively enduring estimate of general self-esteem. This he contrasted to more specific and transitory changes in evaluation. While general and transitory evaluations deal with the level of individual self-appraisal, they differ in the generality and reliability of the

appraisals. They also differ in the conditions under which they are made (Coopersmith, 1981). He (Coopersmith, 1981) suggested that at some time preceding middle childhood “the individual arrives at a general appraisal of his worth, which remains relatively stable and enduring over a period of several years” (p. 5). While this appraisal can presumably be affected by “specific incidents and environmental changes” (Coopersmith, 1981, p. 5), it may revert to its customary level as conditions return to their “normal” and typical course (Coopersmith, 1981, p. 5). Self-esteem may also vary across different areas of experience, as well as according to sex, age, and other role defining conditions (Coopersmith, 1981).

In line with the views of James (1890), Coopersmith (1981) believed the over-all appraisal of one’s abilities to be a consideration of the areas and conditions according to their subjective importance. Thus, one would be enabled to arrive at a general level of self-esteem (Coopersmith, 1981). A third consideration in Coopersmith’s definition of self-esteem is his suggestion of the clarification of the term “self-evaluation” (Coopersmith, 1981). In his research the term referred to “a judgmental process in which the individual examines his performance, capacities, and attributes according to his personal standards and values, and arrives at a decision of his own worthiness” (Coopersmith, 1981, p. 7). He considered attitudes toward the self to be like other attitudes in carrying positive and negative affective connotations. He also considered them to be intertwined with intellectual and motivational processes or to carry “affective loadings and motivational consequences” (Coopersmith, 1981, p. 7). While the individual may not be aware of his/her attitudes toward himself/herself, Coopersmith (1981) considered the attitudes to be expressed in the individual’s “voice, posture, gestures, and performance” (p. 7).

Early on, Coopersmith (1959) understood studies of self-esteem were difficult to evaluate due to the vagueness of the term itself and the fact that it was subject to manifold interpretations.

During the beginnings of his research he conducted studies to develop measures capable of distinguishing between self-evaluation and the manner of behavioral expression of self-evaluation. He developed and administered two instruments, the Self-Esteem Inventory (SEI) and a Self-Esteem Behavior Rating Form (BRF) which he administered to 102 fifth- and sixth-grade students who were attending the public schools in a small Eastern city. The students in the age group 10-12 were chosen because the personality had been relatively well formed by that time (Coopersmith, 1959). He also considered this to be an appropriate age as “the adolescent turmoil noted in our society is not yet likely to have occurred” (Coopersmith, 1959, p. 88). Coopersmith (1959) constructed the Self-Esteem Inventory on the basis of items selected from the Rogers and Dymond scale (1954) and reworded it for use with children. The entire instrument was presented to five psychologists who then sorted the items into one of two groups, one representing high self-esteem and the other low self-esteem. The instrument was administered to two fifth-and sixth-grade classes on a group basis by the researcher. The Self-Esteem Behavior Rating Forms were given to teachers and the principal of the students involved in the study with the request to rate each child on behaviors presumed to be related to self-esteem according to a 14-item, five-point scale. The teacher and principal independently rated the students and at no time collaborated on their ratings. Test-retest reliability was high for both instruments ($\alpha = .88$ for the Self-Esteem Inventory and $\alpha = .96$ by one teacher of 28 children). In the majority of the cases for the group of 10-12 year old students, there was substantial agreement between self-evaluation and behavioral expressions. It was also found that individuals who had more successful experiences were significantly higher in the evaluations than those who had fewer successful experiences (Coopersmith, 1959). The study also gave credence to the value of the combination of subjective and observer evaluations in order to gain

greater predictability in determining what combinations of self-esteem variables are most pertinent to certain situations. Researchers who have followed (Branden, 1994; Crocker, 2002; Fleming & Watts, 1980; Marsh & Shavelson, 1985; Shavelson, Hubner, & Stanton, 1976) have referenced Coopersmith, some (Shavelson et al., 1976) critical of his instrumentation and others (Branden, 1994) praising Coopersmith for his work and referring to *The Antecedents of Self Esteem* as a “landmark study” (p. 172).

In his formal definition, Branden (1994) has written “self-esteem is the disposition to experience oneself as competent to cope with the basic challenges of life and as worthy of happiness” (p. 27). He considered the definition to be composed of two components, self-efficacy and self-respect. Self-efficacy is related to coping with basic challenges of life, or the confidence the individual has in the functioning of the mind, the ability to think, understand the facts of reality, and make decisions (Branden, 1994). Self-respect is the individual’s belief that he/she is worthy of happiness. Branden (1994) presented his definition as one that is not a product of a particular cultural “value bias” (p. 21), for he believed there is no society on earth and no society even conceivable where people of that society do not face the challenges of fulfilling their needs.

Reasoner (2008) considered self-esteem to include cognitive, affective, and behavioral elements, a consideration which is held in general agreement in both psychological and sociological arenas. The term self-esteem is cognitive in that one consciously thinks about and considers the discrepancy between one’s ideal self, which is the person one wishes to be, and the perceived self, who accounts for the realistic appraisal of how one views himself/herself. The affective element refers to the feelings and emotions experienced as the individual considers the discrepancy. Such behaviors as assertiveness, resilience, decisiveness, and respect of others are

the manifestations of the behavioral dimension of the term self-esteem. Reasoner (2008) believed these multiple dimensions make it difficult to define self-esteem. Yet, referring to Nathaniel Branden's (1994) definition of self-esteem, Reasoner (2008) considered worthiness the psychological aspect of self-esteem and competence the sociological or behavioral aspect. In addition, Reasoner (2008) viewed self-esteem as "a person's overall judgment of himself or herself pertaining to self-competence and self-worth based on reality" (p. 2).

Some authors (Katz, 1993; Reasoner, 2008) cautioned against the confusion over what is meant by the term self-esteem, citing such confusion as a result of programs and strategies not founded in sound research. They noted such strategies as heaping children with undeserved praise that is not preceded by accomplishment. A need has been identified (Katz, 1993) to distinguish between self-esteem and narcissism. Katz (1993) has referred to narcissism as an "excessive preoccupation with the self" (p. 8) and considered it detrimental to the development of an accurate sense of competence and self-worth. Young-Eisendrath (2008) wrote of the "self-esteem trap" (p.30) which she believed has come about due to the idea of the "special self" (p.32), resulting from well meaning parents and educators who believe praise, encouragement, and advantages can be transformed to childhood happiness and success in adulthood. Some of the most lasting results, however, have become "negative self-absorption, an undervaluing of being ordinary, and difficulties with seeing ourselves accurately and compassionately" (Young-Eisendrath, 2008, p.32). She (Young-Eisendrath, 2008) believed children today have become preoccupied with their own needs before they have the opportunity to develop those skills that accurately assess strengths and weaknesses and are included in the knowledge base for accurate self-esteem.

Beane (1991) referenced the idea of self-esteem as it has become a “source of considerable controversy and contention in the school context” (p. 30). He differentiated between self-concept, which he believed to be the description of self, and self-esteem, which he considered to be the evaluation of self. Beane (1991) added that “self-esteem” is not just a psychological construct” (p.30). He considered it to have meaning for creating and understanding “the philosophical and sociological themes that permeate our lives” (Beane, 1991, p 30).

Wylie (1961) discussed the empirical literature in the area of “self-psychology” (p. 2) until the time of her research. Major emphasis was given to studies which pertained to a conscious self-concept, also referred to at the time as the phenomenal self. She noted the term self-concept to be intertwined with those of self-satisfaction, self-acceptance, and self-esteem, and overlapping in the literature. For clarity in her discussion self meant the subject’s “view of his actual self or real self, i.e., his concept of himself as he actually is” (Wylie, 1961, p. 40-41). Some of the terms mentioned by Wylie (1961) remain intertwined in the literature. Branden (1994) contended “a self-concept contains or includes our level of self-esteem, but is more global” (p. 15). Shavelson et al. (1976) challenged the definition of self-concept, considering definitions of self-concept to be imprecise with variability from one study to the next, with classification according to different conceptual dimensions. They identified seven features which they consider to be critical to the construct definition. Shavelson et al. (1976) stated “self-concept may be described as: organized, multifaceted, hierarchical, stable, developmental, evaluative, differentiable” (p. 411). In their discussion of the evaluative component of the construct, they commented that the individual does not only develop a description of self in a particular situation or class of situations; but there is also an evaluation of self. This evaluative

dimension can vary according to the individual as well as different situations. According to Shavelson et al. (1976), “the distinction between self-description and self-evaluation has not been clarified conceptually or empirically” (p. 414). Thus, in the literature the terms self-concept and self-esteem have been used interchangeably (Shavelson et al., 1976). Finally, the dimensions of the definition of self-concept would culminate in a hierarchical model with general self-concept at its apex. General self-concept would then be divided into two components, those of academic self-concept and nonacademic concept. Academic self-concept could be further divided into subject areas, followed by specific areas within a subject matter. Nonacademic self-concept would be divided into social and physical self-concepts, which then could be divided into more specific facets in a similar manner as could be the academic self-concept (Shavelson et al. 1976). Two studies followed that of Shavelson et al. (1976), one by Fleming and Watts (1980) in which data via factor analysis offered considerable support for a multidimensional conception regarding the measure self-esteem. The second study by Fleming and Courtney (1984) was also concerned with the validity and utility of the facet model. These researchers preferred the use of the term self-esteem to self-concept. They considered issues related to dimensionality and used the term “centrality hypothesis” (Fleming & Courtney, 1984, p. 405). According to this hypothesis, when self-concept is to be measured, the assessment should take into account those dimensions which are central to or valued by the person being assessed. They also considered self-concept to include pure self-descriptions which they determined to be distinguishable from self-esteem, because these descriptions do not necessarily imply judgments (Fleming & Courtney, 1984).

McCauley and VanVelsor (2004) believed self-esteem can be defined in two ways, globally and specifically. Global self-esteem is defined as “feeling good about oneself in

general” and specific self-esteem is defined as “feeling worthy in relation to a specific task or category of tasks” (McCauley & VanVelsor, 2004, p. 215). Specific self-esteem was referred to on some occasions by these authors as self-efficacy (McCauley & VanVelsor, 2004).

Crocker and Wolfe (2001) studied the contingencies of self-worth or the criteria upon which one bases self-esteem. Some of the contingencies are internal, while some are external and require continued validation. They (Crocker and Wolfe, 2001) contrasted the contingencies to the typical average or trait levels of self-esteem.

For the purpose of the present discussion self-esteem will be defined according to that referenced by Coopersmith (1981) as “the evaluation which an individual makes and customarily maintains with regard to himself” (p. 4-5). As referenced earlier, Coopersmith (1981) has also stated that “in short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself” (p. 5). In the present discussion this personal judgment will also be considered a part of the evaluation of the subjective experience the individual conveys to others verbally and through other overt expressive behavior (Coopersmith, 1981).

Development of Self-Esteem in the Individual

Child’s Judgment of Self in the Home

Neuroscientists have sought to explore the differences in human behavior; and observing elements of cognition and affect, they consider the development of self-awareness a progression from infancy which continues throughout the lifespan. Schore (1994) has targeted the orbitofrontal region in the cerebral cortex of the brain to be uniquely involved in social and emotional behavior. He considered this area to underlie the emergent psychological affect regulatory function. This comes about in the critical period of primary socialization of

infancy during months 10-12 to 16-18 (Schore, 1994). Associated with the early experiences in the care-giving relationship, the infant's biologically organized affect core becomes "biased with tendencies toward certain emotional responses" (Schore, 1994, p. 415).

In consideration of the caregiving relationship, one can surmise that the child's first judgment of self is made at home where he/she is either nurtured by warm loving parents who consistently convey their unconditional acceptance of the child, or where he/she is rejected by cold, hostile, or disapproving parents (Coopersmith, 1981). While the accepting parent may express disapproval of particular deeds the child may have performed or omitted, the parent's acceptance of the child himself is unconditional. On the other hand, lack of affection and attitudes of disapproval and hostility may be expressed as either passive or active forms of rejection. These passive and active forms of rejection express disinterest, disapproval, and distaste for the child. Acceptance has an enhancing effect upon self-esteem while parental rejection contributes to a diminished sense of self-worth (Coopersmith, 1981). One author has stated that it is not what is said or thought by the parent, but what is communicated that has the impact on the child (Stanley, 1986). Coopersmith (1981) continued the communication of the parent's interest in the child's affairs has an enhancing effect on self-esteem. The child reacts to parental treatment he/she has received, and it is possible for the child to view his/her parents as accepting and approving even in the face of restrictions and demands. This perception is the result of the parents' consistent and well-disposed attitude of concern and love (Coopersmith, 1981).

Child's Judgment of Self Outside of the Home

The interaction with parents expands as the child relates to others outside the family. The development of self-esteem continues as the child enters school. His/her opinion of self may be

dependent upon the way in which the child interprets the teacher's reaction to his/her performance and the performance of his/her classmates (Crocker & Cheeseman, 1988). A study was designed by Crocker and Cheeseman (1988) to extend the knowledge of children's abilities to assess the academic worth of self and others in the earliest years of schooling. A sample of 141 children ranging from five to seven years in age was asked to rank everyone in their classes as better than self at school work and those who the child thought were not as good as self. The study concluded that it appeared there was always a high degree of agreement between self, peers, and teacher of the rank order of children in any particular classroom (Crocker & Cheeseman, 1988).

A discussion of the child's judgment of self outside the home should include the comments of G. Stanley Hall who has been labeled by historians as the father of the scientific study of adolescence (Santrock, 1987). G. Stanley Hall's concept of adolescence was considered the first systematic portrayal of that stage of life in the modern world (Ross, 1972). In his discussion of G. Stanley Hall, Ross (1972) reminded the reader of Hall's reference to the adolescent period. Hall deemed it as one of "storm and stress" (1924, p. xiii), a description he borrowed from Rousseau and other European writers. He characterized this period of development as one full of contradictions and wide swings in mood and emotions. While Hall's research may have been crude by today's standards, he believed systematic methods should be developed to study adolescence. The transformation of his ideas of youth into a modern concept of adolescence was affected by the social setting of the 1890's in America, and his view held implications for both socialization and education (Santrok, 1987). Others followed G. Stanley Hall in their research regarding the period of adolescence. Klein (1992) investigated the relationship between temperament and self-esteem among late adolescents. She identified five

temperament dimensions—activity, adaptability, attention/distractibility, rhythmicity, and reactivity. Adaptability and attention/distractibility were highly correlated with self-esteem. Reactivity also showed a significant correlation. The child who can adapt and change readily in response to contextual demands will receive positive feedback and will be more likely to correctly view self as competent and successful. Authors have addressed student apathy (Raffini, 1986), overachievement (Shoss, 1992), and group affiliation (Brown & Lohr, 1987) during the adolescent years.

Parenting Styles

Studies have been conducted examining investments in work and parenting. In one such study of young children, Greenberger and Goldberg (1989) analyzed data which suggested employed mothers committed to both work and parenting may be particularly likely to conform to an authoritative parenting style. Dornbusch, et al. (1987) related parenting styles to adolescent academic achievement. At the time of their study they indicated family types to differ in values, behaviors and standards that children are expected to adopt. They also differed in the ways these standards were transmitted (Dornbusch et al., 1987). Following the typology of parenting styles identified in the research of Baumrind (1971), they (Dornbusch et al., 1987) defined three family parenting styles which they considered to have consequences for the development of cognitive and social competence. The authoritarian pattern was described as “being high in demandedness on the part of parents and low in parental responsiveness to the child” (Dornbusch et al., 1987, p. 1245). Permissive parents were tolerant and accepting of the impulses of the child. They used as little punishment as possible, allowing considerable self-regulation by the child. Authoritative parenting advocates an expectation of mature behavior from the child and clear setting of standards by the parents. Rules and standards are firmly enforced, but the parent encourages the

child's independence and individuality, and open communication exists between parent and child. The research of Dornbusch et al. (1987) found authoritarian and permissive parenting styles to be negatively associated with grades. Findings showed authoritative styles positively associated with grades. The study considered gender, age, parent education, ethnic and family structure categories. Families with higher parental education tended to be somewhat lower in authoritarian and permissive parenting. They tended to be higher in authoritative parenting. Single mothers showed a higher level of permissiveness than households containing both natural parents. Step families tended to be more permissive and authoritarian when compared to families with two natural parents. Across ethnic groups, authoritarian and permissive styles were associated with lower grades and authoritative style with higher grades (Dornbusch et al., 1987). Findings from other research studies reflected these parenting characteristics to persist into college years (Strage & Brandt, 1999; Hickman, Bartholomae, & McKenry, 2000).

The College Years

Dornbusch (2002) reminded the reader that “some have defined adolescence as the second decade of life, whereas others stress the period as one of preparation for adult roles” (p. 173). He contended there is no fixed upper boundary for adolescence according to the second perspective, and that this apprenticeship for adulthood may continue until the individual engages in full-time work or marriage or parenthood which proclaims the end of the preparatory period (Dornbusch, 2002). His comments are applicable to the understanding of development during both adolescence and the early adult years. He considered it important to learn those characteristics of the adolescent experience that affect later life functioning (Dornbusch, 2002). He believed there are multiple ways to measure successful functioning in the later period of adolescence, especially when students move on to the university setting. He indicated the

importance of the explanatory process of context on various aspects of adolescent functioning (Dornbusch, 2002).

Arnett (2000) proposed a new theory of development with a focus on ages 18-25 which he describes as emerging adulthood. Arnett (2000) considered this to be an altered nature of development in the late teens and early twenties for young people in industrialized societies. He associated it with changes having occurred over the past half century in which there are delays in marriage and parenthood. He argued that this period of emerging adulthood is neither adolescence nor young adulthood. He considered it to be empirically distinct from both of these periods of life, and believed that emerging adulthood should be distinguished from young adulthood because it has characteristics that are more dynamic, changeable, and fluid (Arnett, 2000). It is a time when the individual has left the dependency of adolescence and experiences relative independence from social roles and normative expectations. It becomes a time of identity exploration and involves trying various life possibilities, gradually moving toward making enduring decisions (Arnett, 2000). This period of development coincides with college attendance. A college education may be pursued in a nonlinear manner, often combined with work, and in some cases punctuated by periods of nonattendance. Graduate school has increasingly become the choice of those who graduate with a four-year degree (Arnett, 2000).

The Millennial Generation

In regard to the young people who transition from the secondary to the post secondary educational environment, Howe and Strauss (2000) referred to those students most recently enrolled in colleges and universities as the Millennials or members of the Millennial generation. These individuals, born between the years 1982 and 2002, along with the Generation X students, born between the years 1961 and 1981, represent most of the students enrolled in colleges and

universities at the present time. Howe and Strauss (2000) discussed some of the characteristics of the Millennials. Some (Elam, et al., 2007) have even labeled them the next great generation, stating they fill a “cultural void left by the departing G. I. generation” (p. 21), those individuals born between 1901 and 1924, who are associated with World War II. These students are described as hardworking. They have been socialized to be successful in life by supportive parents, having been engaged in numerous academic and extracurricular activities. Their parents remain supportive forces in their education at the post secondary level. To be considered is the contrast of their support to the support of parents of college-bound students of previous generations. The support provided by parents from previous generations was more emotional and financial in nature, with the recognition that formal education marked the transition from “youth to adolescence and on to adulthood” (Elam et al., 2007, p. 22). Parents of Millennials take a more aggressive participatory role. Murray (1997) believed this aggressive participation stems from patterns in the parental generation. He wrote that parents of Millennials generally delayed parenthood until their late 20s when they considered themselves financially secure. Taking their child-rearing responsibilities seriously, they exposed their children to immense cultural and social experiences. They continued this active involvement during the school age years, with critical appraisals of schools, teachers, curricula, and coaches. The emphasis on academic achievement continued through secondary school (Murray, 1997). Parental involvement of these individuals does not wane once students matriculate at a particular college or university, and they often expect to be involved throughout their child’s undergraduate education in some fashion (Elam et al., 2007). This has prompted some universities to develop parent-oriented links to their campus Web sites, publish recruitment materials geared to parents’

concerns and issues, and open parental relations offices to accommodate the involved parents (Elam et al., 2007).

Millennial students have been described by Strange (cited in Elam et al., 2007) as “conventionally motivated and respectful” (p.23); “structured rule followers” (p. 23); “protected and sheltered” (p. 23); “cooperative and team-oriented” (p. 23); “talented achievers” (p.23); and “confident and optimistic about their futures” (p. 23). He (Strange cited in Elam et al., 2007) considered these qualities to have implications for educators at all levels. Yet, caution is recommended, for some researchers fear Millennials are over-reliant on communications technology which has resulted in stunted interpersonal or “face-to-face” skills (Elam et al. 2007, p. 22). Others caution that there are individual members of the millennial generation who have not been afforded equal levels of financial, personal, and social support, and suggest that high school counselors and college admission officers will have the continued challenge of formulating strategies to alleviate social inequalities in secondary and post secondary settings (Elam et al. 2007). Broido (2004) characterized this generation of college students according to their racial and ethnic diversity. She (Broido, 2004) considered them to be “poised to be the generation most able to transform how they, and the larger world, think about and act on these issues” (p. 83) of diversity.

First-Generation College Students

A segment of the Millennial generation described by Terenzini, Springer, Yaeger, Pascarella and Nora (1996) are those students who represent the first members of their families to attend college or first-generation college students. In a study which involved 2,685 students from 23 diverse institutions nationwide who entered college in the fall of 1992 and completed one year of study, the researchers found first-generation students to differ from their traditional

peers in both entering characteristics and college experiences. The sample consisted of 825 first-generation students and 1,860 traditional students. Findings indicated first-generation students were more likely to come from low-income families and to have weaker cognitive skills in reading, math, and critical thinking. They were more likely to be Hispanic, and to have lower degree aspirations. These students also tended to have been less involved with peers and teachers in high school. They reported receiving less encouragement from their parents regarding college attendance, more often had dependent children, and expected to take longer to complete their degree programs. They also worked more hours off-campus. The researchers believed these differences to be indicative of a subgroup that is at risk and that is expected to continue to grow both in number and proportion to the total undergraduate population (Terenzini et al., 1996). The researchers viewed the differences in characteristics and experiences to be indicative of the need for more administrative attention to assure first-generation students are successful in college. The researchers pointed to limitations in the study. The 23 colleges and universities involved in the study were not randomly selected, and to an unknown degree may not have been representative of the national mix of colleges and universities. Due to time constraints and work required of each respondent, there was some self-selection. Attempts in the initial sampling design were made to yield a sample of students which was representative of the national population of students who entered college in the fall of 1992. Yet, the resulting self-selection led to the question of representativeness due to possible differing responses of those willing to participate in the study and those who declined the invitation to participate. The effect size had constraints regarding cognitive gains of first-generation and traditional students. While the findings were at least suggestive

of the dynamics of college impact in these areas, they were considered lower-bound estimates (Terenzini et al., 1996).

Variables Influencing Adjustment and Academic Achievement

Crocker (2002) has explored the costs of the pursuit of self-esteem, which she considered to be a preoccupation in American society. She equated the pursuit with the two psychological needs of competency and relatedness, and views the pursuit of self-esteem as more relevant than the levels of self-esteem, whether high or low. In her research involving an ethnically diverse sample of 642 college freshmen, Crocker (2002) sought to examine the possibility of contingencies of self-esteem, some more fragile than others and requiring a more relentless engagement in their pursuit. Describing the contingencies as the external contingencies of self-worth and the internal contingencies of self-worth, Crocker (2002) observed the external contingencies to require more effort on the part of certain individuals to prove they are worthwhile.

Students were first contacted during the summer before their freshman year with the request that they complete the Contingencies of Self-Worth scale (CSW-65) which was a 65-item scale of a measure assessing seven contingencies of self-worth (Crocker, 2002). These seven contingencies (Crocker, 2002) include: 1) academic competence—"I feel better about myself when I know I'm doing well academically" (p. 601); 2) appearance—"my sense of self-worth suffers when I think I don't look good" (p. 601); 3) others' approval—"I don't care what others think of me" (p. 601); 4) competition—"outdoing others in competition" (p. 610); 5) love and support of family—"it is important to my self-worth to feel loved by my family" (p. 601); 6) virtue—"my self-esteem depends on whether or not I follow my moral/ethical principles" (p. 601); and 7) religious faith—"I feel worthwhile when I have God's love" (p. 601). Near the end

of both the first and second semesters of college, students were asked to report what campus organizations they had joined and the length of time spent in participation in a variety of activities, including “studying, volunteering, going to church or synagogue, partying, socializing, exercising, shopping for clothes, and grooming” (Crocker, 2002, p. 603).

Appearance, competition, and others’ approval were considered to be the most external and unreliable of the contingencies assessed by the CSW-65. These were considered the contingencies to cause an individual to become more relentless in the pursuit of self-esteem. While considered a more stable source of self-esteem, family support was also considered external. Religious faith and virtue were the internal sources of self-esteem. Academic competence was considered to be either external or internal (Crocker, 2002).

In the research of the present discussion, Crocker (2002) found academic competences to be more strongly associated with external contingencies, especially competition. Findings also revealed contingencies of self-worth predicted joining campus organizations. When the researcher controlled for gender, ethnicity, parents’ income and level of self-esteem, she found students who base their self-esteem on appearance were more likely to join fraternities and sororities. However, students who based their self-esteem on virtue or outdoing others in competition were less likely to join these organizations. In addition, students who based their self-esteem on religious faith were more likely to join religious organizations. When the researcher controlled for differences associated with the gender, ethnicity, and socioeconomic status of students, their level of self-esteem had little or no effect on how much time the students spent in participation in most activities during their first semester of college. However, contingencies of self-worth prior to entering college were significant in predicting their first semester activities. The researcher (Crocker, 2002) concluded there may be a reciprocal causal

relationship between contingencies of self-esteem and time spent on activities by students. Yet, the effect of prior contingencies on later behavior was stronger and more reliable than the effect of prior behavior on contingencies. The data made it “less plausible that students were simply telling us a good story about themselves, because the reported activities in which they indicated their time spent were consistent with their contingencies of self-worth” (Crocker, 2002, p. 604).

Crocker (2002) suggested an alternative response to the threats to self-esteem that would be more likely to satisfy the fundamental human needs for competence and relatedness. This response involved shifting one’s goals from self to others. She equated the shift with pursuing goals that are larger than self and which involve creating, building, and giving.

Another consideration is the collective self-esteem of college students. While self-esteem is related to self-worth (Coopersmith, 1981, Rosenberg, 1965), Crocker, Luhtanen, Blaine, and Broadnax (1994) considered it to also be strongly related “to how individuals experience themselves and their worlds” (p. 503). Noting the personal, individualistic aspects of self may be more important sources of self-esteem for people of Western cultures, they were led to investigate collective self-esteem among White, Black, and Asian college students. They called upon Tajfel (1981) to define the social or collective self. According to social identity theory Tajfel (1981) defined the term as “that aspect of an individual’s self-concept which derives from his knowledge or membership in a social group (or groups) together with the value and emotional significance attached to that membership” (p. 255). Crocker et al. (1994) viewed social identity through the lens of social identity theory “as a function of how one privately evaluates one’s groups, how one believes others evaluate those groups, and how identified one is with those groups” (p. 504). They reasoned that if the collective is an important aspect of the self, the evaluation of the collective aspects of the self along with the evaluation of one’s ethnic

identity should be related to one's psychological well-being. This would apply especially for those individuals who consider their collective or ethnic identity important to their self-concept (Crocker et al., 1994). In their study the researchers collected data from 238 students enrolled in a large northeastern university on the measures of collective self-esteem and psychological well-being. The psychological well-being measures included personal self-esteem, depression, life satisfaction, and hopelessness. Data were collected over three academic semesters, or an 18-month period. Results from the study were thought to have implications for the relationship between public and private aspects of collective self-esteem as well as the relationship between collective self-esteem and psychological well being. The results for White students were consistent with predictions based on Mead's (1934) thought of reflected appraisals. Their evaluations of their social groups were largely consistent with how they believed others evaluated those groups. Yet, results indicated Black students separated how they privately felt about their groups from how they believed others evaluated the groups. Results representing responses of Asian students were consistent with Asian cultural influences, including the interconnected nature of the self and the importance of feelings and evaluation of others, as well as the importance of one's public image (Markus & Kitayama, 1991). The researchers considered the study to underscore the importance collective self-esteem plays in psychological well-being which leads to adjustment (Crocker et al., 1994).

Bettencourt et al. (1999) further examined the benefits of collective self-esteem for adjustment in the context of the school environment, specifically that of residing in campus residence halls. Measurements of variables were taken at two points divided by a time interval of six months. Variables measured were personal self-esteem, academic adjustment, and social adjustment. The sample consisted of 213 students with a mean age of 18 years who were

entering first year, first semester students. Of the 213 students in the sample, 77% were White and 19% were Black. In addition, 2% were Hispanic and 2% were Asian/Asian American. Results of the analysis of data revealed collective self-esteem and personal self-esteem to be somewhat correlated for both phases of data collection. In the second phase collective self-esteem and personal self-esteem were moderately correlated with both the quality of interpersonal relationships and the number of extracurricular activities of participants. Although not the emphasis of the study, the results also showed the increase in personal self-esteem to be associated with social and academic adjustment. An increase in personal self-esteem was not associated with grade point average. Also positively associated with social adjustment were the number of extracurricular activities and the index of high school achievement. In addition, the amount of extracurricular activity was associated with academic adjustment. The index of high school achievement was also associated with grade point average. According to the researchers their findings suggested academic practitioners should recognize the capacity of group memberships to positively influence adjustment in the college context. They called upon practitioners who seek to improve students' adjustment to college to take note of group memberships that are consistent with students' social and academic adjustment needs (Bettencourt et al., 1999).

Pascarella and Terenzini (1980) conducted a study involving an Experimental Living-Learning Residence (LLR). The LLR had a series of organizational and programmatic features which were typically absent from conventional freshman residential halls. Architectural renovations had provided for multiple study areas and office space for academic and personal counseling. There were seven live-in academic staff members. One was a full time faculty member and the others were teaching assistants. There was a series of 20 credit-bearing courses

taught in the LLR. Features also included a faculty lecture series on current topics, a series of regularly scheduled informal discussion sections with faculty and staff, and regularly scheduled informal meetings with visiting scholars on campus (Pascarella & Terenzini, 1980). In addition, there were regularly scheduled informal meetings with university deans and administrators. The students involved in these residential arrangements were from all classes with the intention of blending social, cultural, and academic activities and to provide for direct involvement of academic staff (Pascarella & Terenzini, 1980). Results confirmed that a set of relationships between students and faculty, as well as students and peers, was facilitated which differed from those promoted in conventional residence halls. Results also confirmed the expectation that the LLR would positively influence a range of freshmen outcomes. Of significance was the positive association of the exposure to the LLR with freshman year persistence in contrast to voluntary withdrawal from the university. The researchers considered the most important conceptual finding to be that of the extent to which the environmental influence of the residence arrangement was mediated by the quality and impact of interpersonal relationships with faculty and peers (Pascarella & Terenzini, 1980).

In line with the studies of Bettencourt et al. (1999) and Pascarella and Terenzini (1980), Pittman and Richmond (2007) addressed the topic of school belonging and the continuation of the importance of the school context as late adolescents attend college. Pittman and Richmond (2007) referred to school belonging as “connectedness to one’s school or perceived school membership” (p. 271). This goes beyond identification with one’s school to include an individual’s perceptions of fitting in and belonging with others at the same institution (Pittman & Richmond, 2007). They suggested this factor may be even more important to the first-generation college student. These researchers focused on the second semester of the freshman year in

college. The students reported on their current sense of belonging in the university setting as well as retrospectively on their sense of school belonging in high school (Pittman & Richmond, 2007). The participants in the study included 266 late adolescents (18-19 years of age), who were enrolled at a regional state university. Regarding the educational levels of their parents, 46% of the students had a parent with a college degree. Thirty-one percent of the students had a parent who had attended college but had no degree, and 23% of the students had no parent that had attended college. The students were considered to be diverse in ethnicity, with 60% of the students reporting they were European American, 22% African American, 10% Hispanic American, and 8% reporting they were Asian American (Pittman & Richmond, 2007). The researchers found an association between university belonging and student outcomes to be positive regarding academic performance, the feeling of more scholastic competence, and higher self-worth, even with variations in the quality of the students' relationships with family and friends. In addition, retrospective reports of school belonging in high school were an important predictor of most of the outcomes of these students. Parental education did not moderate the relationship between university belonging and college adjustment for these students. Yet, findings did indicate high school belonging was a more protective factor in predicting adjustment to college among students whose parents had attended but not graduated from college. These researchers suggest longitudinal studies to explore how earlier and current sense of school belonging are linked to both academic and psychological development over time. They (Pittman & Richard, 2007) saw freshmen orientation and residence hall programs designed and implemented to target this construct worthy of testing for their effects on students' adjustment over the first year of college.

The perceptions of freshmen students regarding their first-semester experiences have been examined at a major land-grant institution. The authors of this research (Thompson, Orr, Thompson, & Grover, 2007) considered a profile of the student population at the freshman level to be distinctive to any university and also to the schools and colleges within that institution. They contended institutions must become familiar with the perceptions of students concerning their early campus experiences. They surveyed 220 students who represented five of the six schools and colleges on campus during the fall regarding six factors—“goal setting, campus resources, stress, relationships, racial sensitivity, and belonging/identity” (Thompson et al., 2007, p. 643). According to study findings, the majority of freshmen surveyed were living on campus. Those students living on campus in Greek houses or residence halls, along with those stimulated by their courses and satisfied with their experience at the university indicated a greater sense of belonging. The researchers also found students from families of lower socioeconomic status to more likely be the first in their family to attend college without reliance upon parental knowledge regarding the social or academic aspects of college life. These researchers consider understanding the freshmen population to be crucial, and called upon colleges and universities to expand advising services to include mentoring of freshman-sophomore students. They also called for mandatory mentoring for those determined to be at risk of leaving the college or university (Thompson et al., 2007).

Students at the Freshman Level in Colleges of Agriculture

Regarding freshmen populations, Ball et al. (2001) addressed the issue of academic performance of freshmen students in colleges of agriculture. They were specifically concerned with the concept of the influence of participation in a learning community referred to as a Freshman Interest Group (FIG) as it relates to academic performance of freshmen students in

colleges of agriculture. They were also interested in studying the influence of involvement in the agricultural youth organizations of 4-H and FFA on academic performance and retention of freshmen in the college of agriculture at the university involved in their research. The target population for the study was freshmen entering the college of agriculture of the university in the fall semesters of 1997 and 1998. They defined the accessible sample as intact groups of freshmen enrolled in a college learning and development course during those semesters. A Freshman Interest Group (FIG) consisted of approximately 20 students living in the same residence hall. Involvement also included concurrent enrollment in at least three courses and a weekly proseminar. Each weekly proseminar was led by a junior or senior student who served as a peer advisor. The researchers determined participation in agricultural youth organizations to be that of enrollment at the secondary level in either 4-H and/or FFA. The cumulative grade point average of students was found to be significantly influenced by involvement in agricultural youth organizations, while participation in Freshmen Interest Groups (FIG) was not shown to be a significant variable influencing students' academic performance. In addition, participation in agricultural youth organizations was found to have a significant association with retention for the sophomore year, while there was no such association with participation in Freshmen Interest Groups (FIG) (Ball et al., 2001).

Granton, Ball, and Dyer (2002) considered data to be lacking which would describe the relationship between university admission criteria and learning styles to the academic performance of students in colleges of agriculture. They also investigated admission criteria of ACT examinations, high school core grade point average, and class rank as predictors of academic performance. They found learning styles to have no value in predicting academic performance in the first year of enrollment in the college of agriculture. Results also indicated

the only successful predictor of the first year cumulative grade point average to be the traditional university admission variable of core high school grade point average (Grant et al., 2002).

In a study conducted at The Ohio State University, researchers (Raven & Barrick, 1992) sought to describe new first quarter freshmen (NFQF) entering the College of Agriculture in the autumn semesters from 1982 to 1988, according to their rural, semi-rural, suburban, and urban background. This longitudinal study spanned a period of time at The Ohio State University before and after the implementation of a new admission policy of conditional /unconditional admission contingent upon the completion of a core of college preparatory courses for entering freshmen. The researchers (Raven & Barrick, 1992) also sought to determine any differences in the academic background characteristics of the students within the categories of school location. Findings revealed enrollment in the College of Agriculture was no longer dominated by students from rural backgrounds, with a balanced composition of rural, semi-rural, suburban, and urban NFQF. Results also indicated that the academic ability indicators ACT scores and class rank increased from 1982 to 1986 for NFQF in the College of Agriculture. From 1984 to 1986 urban NFQF exhibited higher measures of academic ability. They were also more likely to be admitted unconditionally as compared to suburban, semi-rural, and rural students. However, in 1987 and 1988 there were fewer differences in the academic preparation and ability of students from rural, semirural, suburban, and urban locations. While the percentage of NFQF who took vocational agriculture for more than two years remained relatively constant, there was a steady decline in the mean number of units of vocational agriculture taken by all types of students. From 1982 to 1988 there was an increase in the percentage of NFQF in the highest quartile of their high school graduating classes (from 52% in 1982 to 65% in 1988). The ACT scores of NFQF also increased from 1982 to 1988, with the mean score 20.6 in 1982 increasing to 22.3 in 1988. The

researchers (Raven & Barrick, 1992) considered the mean number of units of vocational agriculture taken by NFQF to likely continue to decline as additional academic requirements are placed on entering freshmen. They recommended that Ohio develop agricultural classes that can satisfy admission requirements, with prime areas of study in the natural sciences and social sciences a means of implementing such courses.

In another study of first term freshmen Son (1975) conducted research in order to determine selected variables or a combination of variables which best predicted the first-term grade point average (GPA) of students enrolled in the College of Agriculture at the University of Missouri—Columbia. The sample of his study consisted of 322 entering freshmen, 172 of which were from small schools and 81 from large high schools. Sixty-eight of the students were female and 254 were male. Predictor variables included gender, high school size, type of high school curriculum, high school rank, and scores of the Missouri Mathematics Placement Test (MMPT), Missouri College English Test (MCET), School and College Ability Test-Quantitative (SCAT-Q), and School and College Ability Test-Total (SCAT-T) (Son, 1975). Results of the analysis of data indicated the composite set of SCAT-Total, MCET, MMPT and high school rank to be the best combination in predicting the first-term grade point averages of freshman students in the College of Agriculture. Results also indicated no significant differences in first-semester grade point average, high school rank, and scores on freshman placement tests among students from small, medium, and large high schools (Son, 1975). His findings also revealed vocational agriculture students to perform academically as well as non-vocational agriculture students in the College of Agriculture, with female students having higher high school rank and better performance on the MCET than their male counterparts. One of his recommendations was a replication of his study with the addition of more “non-intellective” (Son, 1975, p.179) predictor

variables such as “motivation, personality, study habits, social economic status....” (Son, 1975, p. 179) in order for the accuracy and efficiency of the prediction of academic achievement to be improved.

Dyer, Breja, and Andreasen (1999) conducted a study to assess the attitudes and intentions of freshman students in the College of Agriculture at Iowa State University regarding high school and university agriculture programs and the field of agriculture. Included in the study was the investigation of student attitudes regarding the role of agricultural educators. A descriptive survey was administered to 513 freshman students in the 1996-97 class of the College of Agriculture. A majority of the student respondents were Caucasian (97%) and male (57%). Almost half of the respondents (47.5%) were from farm backgrounds, with an additional 28.8% of the students from rural areas which were not classified as farms or small towns of less than 10,000. The remaining 23.7% of the students indicated their geographical backgrounds to be large or medium sized urban areas. Results indicated the attitudes of the respondents toward the field of agriculture to be generally positive, viewing the field of agriculture as both scientific and technical (Dyer et al., 1999). Generally, respondents indicated they believed everyone would benefit from college courses in agriculture, with 76.1% of the students disagreeing that agriculture courses in college were better suited to male students. Regarding their high school agriculture program experiences, a majority of the College of Agriculture freshmen (54%) reported course work in high school agriculture. Of the respondents 182 students (46%) indicated they had no high school agricultural courses. Ninety-seven percent of the students from high school agriculture programs indicated the intention to graduate from the College of Agriculture and to enter an agricultural career. Of the students indicating they had not enrolled in high school agriculture programs, 90.5% reported they planned to graduate from the College

of Agriculture. The researchers (Dyer et al., 1999) interpreted their findings to imply high school agriculture programs are good investments by colleges of agriculture as well as those interested in promoting agriculture. They commented many secondary students in Iowa did not have the opportunity to enroll in high school agriculture programs, with 68% of the respondents indicating they did not have access to such a program. Following as the second most cited reason was the conflict with college preparatory courses. Dyer et al. (1999) recommended an increase in the number of high school agriculture programs in the state as well as minimizing scheduling conflicts. Additionally, 20% of students indicated their agriculture teacher to be the most influential source in their decision to pursue a college degree. This would imply the importance of a nurturing relationship between colleges of agriculture and agriculture teachers in order to generate more effective recruitment efforts (Dyer et al., 1999).

Summary of the Review of Literature

The present review of related literature has led from the discussion of academic achievement, with its beginning at the primary level and continuation through the college experience. Educators have offered definitions of the measures of student achievement and their concerns regarding developmental benchmarks, as well as the high risks nature of the use of standardized tests (Marchant, 2004).

A discussion of the self-esteem movement ensued with an emphasis on the many attempts to define self-esteem. Some researchers have even expressed what self-esteem does not mean. Generally, there is the view that it is multifaceted. In building upon previous definitions there is agreement that it does deal with one's judgment of self and one's worthiness (Coopersmith, 1981).

The construct of self-esteem has affective roots in the early development of the individual (Schoore, 1994) indicated by the infant's biologically organized affect core and its involvement in the formation of certain emotional responses within the individual. Through the developmental tasks of the formative years and the emerging years in elementary and secondary school, self-esteem becomes an influencing factor in the child's well-being. It is counted among those variables which influence adjustment and achievement as the individual approaches the transition to late adolescence and young adulthood.

The present discussion has also included those factors of parental involvement in the life of the late adolescent as he/she enters the years of postsecondary education. Parenting styles in early and late adolescence have been indicated. The diversity of the Millennial generation now in the college setting has been a topic of discussion, along with the subgroup of first-generation college students. Studies regarding residential living arrangements, along with identity and belonging issues have been reviewed. With a focus on the student during the first year of college, the review of literature continued with that of the adjustment and academic achievement of the student at the freshman level in colleges of agriculture.

Finally, there is the consensus of researchers regarding the importance of the student's experiences during the first year of college. They consider attention to these variables to be crucial to university administrators, faculty, admissions officers, and support services personnel as they consider the provision of the best educational experience for the students once they have enrolled at an institution of higher learning (Thompson et al., 2007).

CHAPTER 3

METHODOLOGY

Purpose of Study

The primary purpose of this study was to determine if a relationship existed between self-esteem and academic achievement among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.

Dependent Variable

The primary dependent variable in the study was academic achievement of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.

Specific Objectives

The following specific objectives were formulated to guide the research study:

1. Describe students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on the following demographic characteristics:
 - a. Age;
 - b. Highest level of education completed by father;
 - c. Highest level of education completed by mother;
 - d. Marital status of parents;
 - e. Race;
 - f. Gender;
 - g. Place of residence during the first semester of college; and

- h. Whether or not the student held membership in selected groups and organizations during the first semester of college.
2. Determine the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States as measured by the Adult Form of the Coopersmith Inventory.
3. Describe students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on academic achievement as measured by their first semester grade point averages.
4. Compare the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States, as measured by the Adult Form of the Coopersmith Inventory, at the beginning and the end of their first semester of college enrollment.
5. Determine if a relationship exists between academic achievement, as measured by high school grade point average, and self-esteem, as measured by the Adult Form of the Coopersmith Inventory at the beginning of the first semester of college enrollment, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.
6. Determine if a relationship exists between self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the beginning of the first semester of college enrollment, and academic achievement, as measured by the first semester of college grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.

7. Determine if a model exists explaining a significant portion of the variability in their academic achievement, as measured by the first semester grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University from the following:
 - a. Self-esteem at the beginning of the semester;
 - b. Age;
 - c. Highest level of education completed by father;
 - d. Highest level of education completed by mother;
 - e. Marital status of parents;
 - f. Race;
 - g. Gender;
 - h. Place of residence during the first semester of college; and
 - i. Whether or not the student held membership in selected groups and organizations during the first semester of college.
8. Determine if a model exists explaining a significant portion of the variability in their self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the end of the first semester of college enrollment of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States from the following:
 - a. Academic achievement as measured by overall high school grade point average;
 - b. Age;
 - c. Highest level of education completed by father;
 - d. Highest level of education completed by mother;

- e. Marital status of parents;
- f. Race;
- g. Gender;
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

Population and Sample

The target population for the study was defined as all students at the freshman level at a Research-Extensive University in the Southern Region of the United States. The students at the freshman level were defined by the researcher as those students in their first semester of college enrollment. The accessible population was defined by the researcher as all students at one selected Research-Extensive University in the Southern Region of the United States enrolled in the Introduction to Agriculture course which was a requirement for agriculture students at the freshman level. The sample was defined as 100% of the accessible population.

Instrumentation

A non-clinical consent form was completed by each student prior to the completion of the three instruments which were used for data collection. The first instrument was the Adult Form of the Coopersmith Inventory used for individuals over 15 years of age. This form consists of 25 items or statements to which the student responds “like me” or “unlike me” (Coopersmith, 1987, p. 7). The statements are related to one’s attitude about self and are indicative of high self-esteem or low self-esteem. The measures of self-esteem have been based on a general theory of self-esteem and its relationship to academic performance (Mental Measurements Yearbook, 2007). Cronbach’s alpha reliabilities of this instrument for age groups 16-19 and 20-34 are $\alpha = .80$ and $\alpha = .81$ respectively (Coopersmith, 1989). The construct validity of the Coopersmith Inventory

was examined by Johnson, Redfield, Miller, and Simpson (1983) using the 50 item School Form from which the Adult Form was adapted. The School Form consists of five subscales: an eight-item lie scale designed as a provision of a measure of defensiveness; and, four subscales designed to assess perceptions of parents (home-parents), school (school-academic), peers (social self-peers), and self (general self). Johnson et al. (1983) considered their study to provide evidence to support the construct validity of the Coopersmith Inventory in the five areas identified. Cronbach's alpha for the total test was $\alpha = .86$ (Johnson et al., 1983).

The second instrument was a researcher-designed questionnaire used to collect demographic information including age, gender, educational level of father, educational level of mother, marital status of parents, mother's work outside of the home during the student's years in elementary school, place of residence during the first semester of college, and group affiliation. Demographic data were included in the survey as considered relevant to the study based on the review of literature.

The third instrument was a recording form on which data from the Office of the University Registrar were downloaded and stored. Specific demographic and academic variables were selected from the review of literature in accordance with the research objectives of the study. There was no individual identifying information included in the downloaded data in order to assure complete confidentiality of research subjects.

Data Collection

Initially, the researcher met with the Dean of the College of Agriculture of the selected Research-Extensive University to request permission to conduct the study using College of Agriculture students. The Associate Dean of the College of Agriculture of the selected Research-Extensive University was also in attendance at the meeting. The purpose of the study

and the nature of the questionnaires to be used were discussed at the meeting. Permission and approval to conduct the study were obtained from the Institutional Review Board (IRB) of the selected institution. The professor for the Introduction to Agriculture course was contacted in advance of the administration of the instruments in order to determine the dates at the beginning and at the end of the semester on which data would be collected. Instructions which were given to students at the time of the administration of the instruments included the comment that all information provided would be held in the strictest of confidence, and that all forms would be in the researcher's possession only and stored in a secure place.

Data Analysis

The data analysis was organized by the individual research objectives. The first objective of the study was to describe students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on the following demographic characteristics:

- a. Age;
- b. Highest level of education completed by father;
- c. Highest level of education completed by mother;
- d. Marital status of parents;
- e. Race;
- f. Gender;
- g. Place of residence during the first semester of college; and
- h. Whether or not the student held membership in selected groups and organizations during the first semester of college.

This objective was descriptive in nature and thus, was analyzed using descriptive statistics. Frequencies and percentages were used for the variables that were measured on a categorical scale (nominal or ordinal). The specific categorical variables were:

- a. Age;
- b. Highest level of education completed by father;
- c. Highest level of education completed by mother;
- d. Marital status of parents;
- e. Race;
- f. Gender;
- g. Place of residence during the first semester of college; and
- h. Whether or not the student held membership in selected groups and organizations during the first semester of college.

The second objective of the study was to determine the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States as measured by the Adult Form of the Coopersmith Inventory. This objective was descriptive in nature and was analyzed using descriptive statistics. The variable self-esteem was measured on an interval scale. Data regarding this objective were summarized using means and standard deviations.

The third objective of the study was to describe students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on academic achievement as measured by their first semester grade point averages. The objective was descriptive in nature and was analyzed using descriptive statistics. Grade point average was measured on an interval scale. Therefore, data regarding this variable were summarized using means and standard deviations.

The fourth objective of the study was to compare the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States, as measured by the Adult Form of the Coopersmith Inventory, at the beginning and at the end of their first semester of college enrollment. To accomplish this objective the paired t test procedure was used to analyze the data. The variable self-esteem was measured on an interval scale of measurement. Therefore, the paired t test procedure was used to compare the self-esteem scores of students at the freshman level at the beginning of their first semester to their scores at the end of the first semester of college enrollment. An *á priori* significance level of $< .05$ was used to determine if the independent variables were significant.

The fifth objective of the study was to determine if a relationship existed between academic achievement, as measured by high school grade point average, and self-esteem, as measured by the Adult Form of the Coopersmith Inventory at the beginning of the first semester of college enrollment, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. The scores for the measurement of the variables self-esteem and academic achievement were measured on an interval scale of measurement. Pearson Product Moment Correlation Coefficients were calculated between the students' scores on the Adult Form of the Coopersmith Inventory and the students' grade point averages. The interpretations of these correlation coefficients were made using the Davis' descriptors of the degree of association (Davis, 1971). The descriptors include:

r = .01 - .09 negligible association

r = .10 - .29 low association

r = .30 - .49 moderate association

$r = .50 - .69$ substantial association

$r > .70$ strong association

The sixth objective of the study was to determine if a relationship existed between self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the beginning of the first semester of college enrollment, and academic achievement, as measured by the first semester of college grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. The scores for the measurement of the variables academic achievement and grade point average were measured on an interval scale of measurement. Since both variables were interval, a Pearson Product Moment Correlation Coefficient was calculated to determine if a relationship existed between the first semester of college grade point average and the students' self-esteem scores on the Adult Form of the Coopersmith Inventory. The interpretations of these correlation coefficients were made using the Davis' descriptors of the degree of association (Davis, 1971).

The seventh objective of the study was to determine if a model existed explaining a significant portion of the variability in their academic achievement, as measured by the first semester grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States from the following:

- a. Self-esteem at the beginning of the semester;
- b. Age;
- c. Highest level of education completed by father;
- d. Highest level of education completed by mother;

- e. Marital status of parents;
- f. Race;
- g. Gender;
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

The researcher used multiple regression analysis to accomplish this objective. “The objective of multiple regression analysis is to use the independent variables whose values are known to predict the single dependent variable selected by the researcher” (Hair, Anderson, Tatham, & Black, 1998, p. 149). The applications of multiple regression analysis fall into two broad classes of research problems, that of prediction and explanation. The dependent variable was a continuous variable measured on an interval scale of measurement. The independent variables were measured on an interval scale or as dichotomous variables.

Because the study was exploratory in nature, the stepwise method of variable entry into the regression analysis was used. The researcher examined the correlation matrix of the independent variables to assess for collinearity. The tolerance value and the variance inflation factor (VIF) were also examined. The first variable selected for entry was the one with the highest bivariate correlation with the dependent variable. After the first variable was entered, the remaining variables were examined for relationship with the dependent variable with the influence of the first variable removed. The independent variables and their coding for the analysis were as follows:

- a. Self-esteem at the beginning of the semester-- measured as a continuous variable on an interval scale;
- b. Age -- measured as a continuous variable on an interval scale;

- c. Highest level of education completed by father—measured as categorical variables;
- d. Highest level of education completed by mother—measured as categorical variables;
- e. Marital status of parents—measured as categorical variables;
- f. Race---measured as categorical variables;
- g. Gender—measured as categorical variables;
- h. Place of residence during the first semester of college—measured as categorical variables; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college---measured as categorical variables.

The researcher created dichotomies from each of the measured categories.

The eighth objective of the study was to determine if a model existed explaining a significant portion of the variability in their self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the end of the first semester of college enrollment among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States from the following:

- a. Academic achievement, as measured by high school grade point average;
- b. Age;
- c. Highest level of education completed by father;
- d. Highest level of education completed by mother;
- e. Marital status of parents;
- f. Race;
- g. Gender;
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

Again, the researcher created dichotomies from each of the measured categories. As with objective seven, the researcher used multiple regression analysis to accomplish this objective. The dependent variable was a continuous variable measured on an interval scale of measurement. The independent variables were measured on the interval scale of measurement or as dichotomous variables. The stepwise method of variable entry into the regression analysis was used. The researcher examined the correlation matrix of the independent variables to assess for collinearity. The tolerance value and the variance inflation factor (VIF) were examined. The first variable selected for entry was the one with the highest bivariate correlation with the dependent variable. After the first variable was entered, the remaining variables were examined for relationship with the dependent variable with the influence of the first variable removed. The independent variables and their coding for the analysis were as follows:

- a. Academic achievement—measured as a continuous variable on an interval scale;
- b. Age—measured as a continuous variable on an interval scale;
- c. Highest level of education completed by father—measured as categorical variables;
- d. Highest level of education completed by mother—measured as categorical variables;
- e. Marital status of parents—measured as categorical variables;
- f. Race—measured as categorical variables;
- g. Gender—measured as categorical variables;
- h. Place of residence during the first semester of college---measured as categorical variables; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college—measured as categorical variables.

CHAPTER 4

FINDINGS

The primary purpose of this study was to determine if a relationship existed between the self-esteem and academic achievement of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. The dependent variable in the study was academic achievement of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. Three data collection points/sources were used for the collection of data. At the pretest measurement data were collected from 188 subjects. At the posttest measurement data were collected from 163 subjects. Archived data existed for 218 subjects.

This chapter presents the results of the study by objective.

Objective One

The first objective of the study was to describe the students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on selected demographic characteristics. This information was collected at the time of the pretest measurement at the beginning of the course. The students were described on the following demographic characteristics:

- a. Age;
- b. Highest level of education completed by father;
- c. Highest level of education completed by mother;
- d. Marital status of parents;
- e. Race;
- f. Gender;

- g. Place of residence during the first semester of college; and
- h. Whether or not the student held membership in selected groups and organizations during the first semester of college.

Following below are the results that present the description on each of the demographic characteristics.

Age

Age was the first variable on which the students were described. Students were asked at the pretest measurement to indicate their ages on the researcher designed instrument. Information regarding age was also collected from archived data. Respondents ranged in age from 17 to 23 years. Of the 218 freshman students, 182 (83.5%) were 18 years of age, while eight of the students (3.6%) were 17 years of age. One (0.5%) student was 23 years of age. The mean age of the respondents was 18.59 years ($SD = 0.54$) (See Table 1).

Table 1
Age of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

Age	<u>n</u>	<u>%</u>
17	8	3.6
18	182	83.5
19	26	11.9
20	1	0.5
21	0	0.0
22	0	0.0
23	1	0.5
Total	218	100.0

Highest Level of Education Completed by Father

A second variable on which subjects were described was the highest level of education completed by their fathers. The largest number of students ($\underline{n} = 58$, 31.2%) indicated their fathers had completed college. The second largest group ($\underline{n} = 45$, 24.2%) reported their fathers had completed some college, while 39 of the respondents (21.0%) indicated their fathers had graduate degrees. Complete results regarding the highest level of education completed by fathers are presented in Table 2.

Highest Level of Education Completed by Mother

Regarding the highest educational level of their mothers, 45.2% ($\underline{n} = 85$) of the students reported their mothers had graduated from college. Thirty-four (18.1%) of the students indicated their mothers had attended some college and 37 (19.7%) of the subjects reported their mothers had graduate degrees. In addition, 27 (14.4%) of the students indicated their mothers had completed high school (See Table 2).

Table 2
Highest Level of Education Completed by Parents of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

Level	Father		Mother	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Less than High School	5	2.7	5	2.7
High School Completed	39	21.0	27	14.4
Some College	45	24.2	34	18.1
College Completed	58	31.2	85	45.2
Graduate Degree Completed	39	21.0	37	19.7
Total	186 ^a	100.0 ^b	188	100.0 ^b

^aTwo participants did not complete this item on the survey instrument.

^bTotal rounded to 100.0%

Marital Status of Parents

Another variable on which respondents were described was the marital status of their parents. A majority of the students ($n = 132$, 70.6%) indicated their parents were married, while 37 (19.8%) of the students reported their parents to be divorced (See Table 3).

Table 3
Marital Status of Parents of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

Status	<u>n</u>	<u>%</u>
Married	132	70.6
Divorced	37	19.8
Separated	6	3.2
Single	6	3.2
Widowed	6	3.2
Total	187 ^a	100.0

^aOne participant did not complete this item on the survey instrument.

Race

Students were also described on their race. Four (1.8 %) of the students did not report information regarding their race. Seventeen (8.0%) of the students reported they were Black/Non-Hispanic, while 180 (84.1%) indicated they were Caucasian/Non-Hispanic (See Table 4).

Gender

Another variable on which participants were described was gender. Of the 218 students at the freshman level who were participants in the study, 46 (21.1%) were identified as male and 172 (78.9%) were identified as female.

Table 4

Race of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

Race	<u>n</u>	<u>%</u>
White/Non-Hispanic	180	84.1
Black/Non-Hispanic	17	8.0
Hispanic	14	6.5
Asian	2	0.9
American Indian or Alaskan Native	0	0.0
Native Hawaiian or Other Pacific Islander	0	0.0
Other ^a	1	0.5
Total	214 ^b	100.0

^aThe “Other” respondent did not specify a race.

^bFour study participants did not provide data for the variable Race.

Place of Residence during the First Semester of College

Regarding the place of residence during the first semester of college enrollment, of the 188 respondents to the pretest demographic survey 32.4% ($\underline{n} = 61$) of the students indicated they lived on campus. Fifty-seven (30.3%) of the students reported they lived in the Agriculture Residential College Hall on the campus of the Research-Extensive University. Twenty (10.6%) of the students reported they lived off campus with their parents, while 50 (26.6%) indicated they lived off campus in an apartment or similar living arrangement.

Membership in Selected Groups and Organizations during Freshman Year of College

Another characteristic on which students were described was their membership in selected groups and organizations during the first semester of their freshman year of college. These data were collected as part of the questionnaire administered to the students at both the

pretest and posttest data collection points. A total of 188 students responded to these items at the pretest; however, percentages do not sum to 100 since respondents were asked to check all that applied to them from among the items available. The organization/group that was reported by the largest number of students ($n = 62$, 33.0%) as one in which they were participating was “Social Sorority/Fraternity.” The organization/group that was reported by the second largest number of students at the pretest was “Service Organization” ($n = 54$, 28.7%). Additionally, 38 (20.2%) individuals reported that they participated in an “Other” organization/group. The “Other” organizations/groups reported by these students are included as a note to Table 5.

At the posttest measurement a total of 163 students responded to the items on the questionnaire. The organization/group that was reported by the largest number of students ($n = 45$, 27.6%) as one in which they were participating was “Social Sorority/Fraternity.” The organization/group that was reported by the second largest number of students at the posttest was “Service Organization” ($n = 31$, 19%). Thirty-one (19%) students indicated that they participated in “Other” organization/group. Once again, percentages do not sum to 100 since respondents were asked to check all that applied to them among items listed on the questionnaire and the “Other” groups/organizations reported by these students are included as a note to Table 5.

Objective Two

Objective two of the study was to determine the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States as measured by the Adult Form of the Coopersmith Inventory. The Adult Form of the Coopersmith Inventory was administered as a pretest measurement at the beginning

and posttest measurement at the end of the first semester of college enrollment. This form consists of 25 items or statements to which the participant responds “like me” or “unlike me.”

Table 5
Participation in Organizations and Groups during the First Semester of College Enrollment
Reported by Students in the College of Agriculture at a Research-Extensive University

Activity	Beginning of Semester		End of Semester	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Social Sorority/Fraternity	62	33.0	45	27.6
Service Organization	54	28.7	31	19.0
Departmental Student Organization	37	19.7	19	11.7
Religious Organization	34	18.1	27	16.6
Sports	27	14.4	12	7.4
Professional Organization	26	13.8	22	13.5
Collegiate FFA/Collegiate 4-H	17	9.0	13	8.0
Brock and Bridle Club	16	8.5	10	6.1
Academic Fraternity	14	7.4	1	0.6
Student Government	11	5.9	9	5.5
Band	3	1.6	3	1.8
Cheerleader	2	1.1	0	0.0
University Publication	1	0.5	1	0.6
Other	38 ^a	20.2	31 ^b	19.0

Note. Percentages do not sum to 100 because respondents were asked to mark all that apply.

^aOf the 38 survey participants responding “Other” at the pretest measurement, all respondents provided defining information including “Pre-Vet Club” (n = 12), “Dairy Science Club” (n = 9), “Wildlife and Fisheries Club” (n = 3), “Riding Team” (n = 2), “SDA” (n = 2), “Wake Club” (n = 2), “Clubs” (n = 1), “College Republicans” (n = 1), “Delta Gamma” (n = 1), “Forestry Club” (n = 1), “Frisbee” (n = 1), “FWD Science Club” (n = 1), “Golden Girls” (n = 1), “Hemline” (n = 1), “Horticulture Club” (n = 1), “Intramural Sports” (n = 1), “LSU Ambassadors” (n = 1), “Study skills of any kind, mainly school studies” (n = 1).

^bOf the 31 survey participants responding “Other” at the posttest measurement, all respondents provided defining information including “Pre-Vet Club” (n = 7), “SDA” (n = 4), “Hemline” (n = 4), “Dairy Science Club” (n = 3), “Student Dietetic Association” (n = 2), “BHM” (n = 1), “Big Buddy” (n = 1), “BSU” (n = 1), “Fashion Club” (n = 1), “Golden Girls” (n = 1), “Horticulture Club” (n = 1), “J.A.C.S. Club” (n = 1), “NAACP” (n = 1), “Pop Fusion” (n = 1), “POPTUSION” (n = 1), “Stripes” (n = 1), “Theatre” (n = 1), “Wake Club” (n = 1), “Wildlife Club” (n = 1).

The statements are related to one’s attitude about self and are indicative of high self-esteem or low self-esteem. The total self-esteem score is reported by totaling correct responses

and multiplying them by four. The term “self-esteem” does not appear on the form (Coopersmith, 1987, p. 7). The omission was intentional in an effort to prevent biased responses. The Cronbach’s Alpha reliability coefficient for the self-esteem instrument at the pretest measurement was $\alpha = .79$, while the reliability for the instrument at the posttest measurement was $\alpha = .81$. The mean score for self-esteem at the beginning of the semester was 70.43 ($SD = 17.64$). The highest value recorded was 96.0 and the lowest value was 24.0. The largest number of students ($n = 57, 30.3\%$) had self-esteem scores within the range of 71 to 80. Eighteen (9.6%) students had scores that were 91 or above. Complete results regarding self-esteem scores are presented in Table 6.

At the posttest measurement at the end of the first semester of college enrollment, the mean score for self-esteem was 74.15 ($SD = 18.08$). The highest value recorded was 100.0, while the lowest value was 24.0. The largest number of students ($n = 42, 25.8\%$) had scores which ranged from 71 to 80. Thirty-six (22.1%) of the students had scores which were 91 or above, while 25 (15.3%) of the students had scores which ranged from 81 to 90 (See Table 6).

In addition, to provide a more meaningful presentation of the self-esteem scores, the researcher also sought to present the normative data for the scores at each of the data collection points. However, as recommended in the operation manual for the use of the Coopersmith Inventory, “there are no exact criteria for high, medium, and low self-esteem” (Coopersmith, 1987, p. 7). Criteria “should and will vary with the characteristics of the sample, the distribution of the scores, and the theoretical and clinical considerations” (Coopersmith, 1987, p. 7). The recommendation is that local norms be established by specifying the highest quartile of scores as high self-esteem, the lowest quartile as low self-esteem, and the middle two quartiles as moderate self-esteem. In this study, norms were developed based on the data collected at the

Table 6

Pretest and Posttest Self-Esteem Scores of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

Score	Pretest ^a		Posttest ^b	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
91 or more	18	9.6	36	22.1
81-90	37	19.7	25	15.3
71-80	57	30.3	42	25.8
61-70	23	12.2	23	14.1
51-60	24	12.8	15	9.2
41-50	14	7.4	11	6.8
31-40	9	4.8	9	5.5
30 or less	6	3.2	2	1.2
Total	188	100.0	163	100.0

^aThe mean pretest score was 70.43 (SD = 17.64). Self-esteem scores ranged from 24 to 96.

^bThe mean posttest score was 73.77 (SD = 18.08). Self-esteem scores ranged from 24 to 100.

pretest measurement at the beginning of the semester. The same norms were used at the posttest measurement at the end of the first semester of college enrollment. At the pretest measurement the largest group of scores (n = 80, 42.6%) were in the moderate self-esteem category, while the fewest scores were in the low self-esteem category (n = 53, 28.2%). At the end of the semester the largest group of the scores (n = 65, 39.9%) were in the moderate self-esteem category. The least number of scores (n = 37, 22.7%) were in the low self-esteem category (See Table 7).

Objective Three

Another objective of the study was to describe students at the freshman level in the College of Agriculture at a Research-Extensive University on academic achievement as measured by their first semester grade point averages.

Table 7

Normative Data for Self-Esteem Scores of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

Level of Self-Esteem	Pretest ^a		Posttest ^a	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
High	55	29.3	61	37.4
Medium	80	42.6	65	39.9
Low	53	28.2	37	22.7

^aHigh Self-Esteem (75th percentile or higher) Raw Scores 84-100; Moderate Self-Esteem (26th-74th percentile) Raw Scores 61-83; Low Self-Esteem (25th percentile or lower) Raw Scores 60 or lower.

Three of the 218 students had missing information regarding grade point averages at the end of the first semester of college. The first semester grade point averages ranged from 0.0 to 4.0, with the mean grade point average being 2.71 (SD = 0.80). The largest number of students (n = 53, 24.7%) had grade point averages which ranged from 2.6 to 3.0. Thirty-seven (17.2%) of the students had grade point averages which ranged from 3.6 to 4.0. Table 8 provides a categorized summary of the grade point averages for the first semester of college enrollment.

Objective Four

The fourth objective of the study was to compare the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University, as measured by the Adult Form of the Coopersmith Inventory, at the beginning and the end of their first semester of college enrollment. The paired t-test procedure was used to analyze the data. According to the results of the t-test, there was a significant difference in the self-esteem scores at the data collection point at the beginning of the semester and the data collection point at the end of the semester (t₁₅₀ = 3.508, p = .001). The mean self-esteem score at the end of the semester

Table 8

First Semester Grade Point Average of Freshman Students in the College of Agriculture at a Research-Extensive University

Grade Point Average (GPA)	<u>n</u>	<u>%</u>
3.6-4.0	37	17.2
3.1-3.5	45	20.9
2.6-3.0	53	24.7
2.1-2.5	41	19.1
1.6-2.0	19	8.8
1.1-1.5	13	6.0
0.0-1.0	7	3.3
Total	215 ^a	100.0

Note: The mean GPA was 2.71 (SD = 0.80). The GPAs ranged from 0.0 to 4.0.

^aThree students had missing information regarding GPAs at the end of the first semester of college enrollment.

(M = 74.15, SD = 18.08) was significantly higher than the mean self-esteem score at the beginning of the semester (M = 70.99, SD = 17.48).

Objective Five

Objective five of the study was to determine if a relationship existed between academic achievement, as measured by high school grade point average, and self-esteem, as measured by the Adult Form of the Coopersmith Inventory at the beginning of the first semester of college enrollment, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. When examining the relationship between the overall high school grade point average and self-esteem scores at the beginning of the first semester of college enrollment, the Pearson Product Moment Correlation

Coefficient was utilized. No significant correlation was found between the overall high school grade point average and the self-esteem scores of students at the beginning of the first semester of college enrollment ($r = .123$, $p = .091$). In addition, no significant correlation was found between the high school honors grade point average and the self-esteem scores of students at the beginning of the first semester of college enrollment ($r = .112$, $p = .126$).

Objective Six

Objective six of the study was to determine if a relationship existed between self-esteem, as measured by the Adult Form of the Coopersmith Inventory at the beginning of the first semester of college enrollment, and academic achievement, as measured by the first semester of college grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. When examining the relationship between self-esteem at the beginning of the first semester of college and the first semester grade point average, the Pearson Product Moment Correlation Coefficient was utilized. The computed coefficient revealed no significant correlation between the self-esteem scores at the beginning of the first semester of college enrollment and the first semester grade point average of students at the freshman level in the College of Agriculture ($r = .081$, $p = .266$).

Objective Seven

Objective seven of the study was to determine if a model existed explaining a significant portion of the variability in their academic achievement, as measured by the first semester grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University from the following:

- a. Self-esteem at the beginning of the semester;

- b. Age;
- c. Highest level of education completed by father;
- d. Highest level of education completed by mother;
- e. Marital status of parents;
- f. Race;
- g. Gender;
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

In order to accomplish the objective the researcher used multiple regression analysis. In conducting the multiple regression analysis, the dependent variable was academic achievement as measured by the first semester grade point average. This variable was measured on an interval scale of measurement. The independent variables included the self-esteem pretest score and age which were also measured as continuous variables on an interval scale. The other independent variables included highest level of education completed by father, highest level of education completed by mother, marital status of parents, race, place of residence during the first semester of college, and whether or not the student held membership in selected groups and organizations during the first semester of college enrollment. These independent variables were categorical in nature and had to be restructured as dichotomous variables in preparation for entry into the analysis. Gender was also a categorical variable. However, since its natural occurrence is a dichotomy, it did not have to be restructured. Stepwise entry of variables was used due to the exploratory nature of the study. Variables that increased the explained variance by one percent or more were entered into the regression equation as long as the overall equation remained significant.

The categorical variable, whether or not the student held membership in selected groups and organizations during the first semester of college enrollment, was measured in 14 response categories. Of these 14 response categories, the three categories band, cheerleader, and university publication, did not have adequate frequencies to include as a variable of investigation. In addition, the “Other” response was not included since the variety of responses created a variable with little continuity. The categorical response “Departmental Student Organization” was restructured to a dichotomous variable “Member of a Departmental Student Organization” or “Not a Member of a Departmental Student Organization.” The dichotomous variable was then entered into the regression analysis as an independent variable. Similarly, the response “Service Organization,” a response to the categorical variable regarding membership in organizations, was restructured as having membership in a service organization or not having membership in a service organization. Established as such it was used for entry into the analysis. Ten of the 14 categories that had 10 or more responses were restructured in this manner.

The categorical variable “Highest Level of Education of Father” was measured in four response categories. Each of these four response categories was established as a separate dichotomous variable. For example, the response “Graduate Degree” as the highest level of education completed by father was specified as “Graduate Degree” or “No Graduate Degree” and this dichotomous variable was entered into the regression analysis as an independent variable. This remained constant with the categorical variable “Highest Level of Education of Mother” which was also measured in the same four response categories, high school completed, some college, college degree, and graduate degree. Again each of the four response categories was established as a separate dichotomous variable.

For the categorical variable “Marital Status of Parents” there were five response categories. However, three of the response categories, single, separated, and widowed did not have adequate frequencies to be included as a variable of investigation. The response categories “Married” and “Divorced” were restructured to dichotomous variables. For example, the response “Divorced” was restructured as “Divorced” or “Not Divorced” to be used for entry into the analysis.

Finally, the categorical variable of “Place of Residence during the First Semester of College Enrollment” which included four response categories was prepared for entry into the analysis. Again each of the four response categories was established as a separate dichotomous variable. For example, the response “On Campus” was specified as ‘Residing on Campus” or “Not Residing on Campus.”

For descriptive purposes, the bivariate correlations between the demographic characteristics used as independent variables and the academic achievement of students in the College of Agriculture at a Research-Extensive University during the first semester of college enrollment are presented in Table 9. Four variables were found to be significantly correlated with academic achievement. The variable with the highest correlation was “Departmental Student Organization” ($r = .20$, $p = .003$). “Graduate Degree” as highest level of education completed by father ($r = .18$, $p = .008$), “Service Organization” ($r = .18$, $p = .008$) and “Sports” ($r = -.14$, $p = .030$) were also significantly correlated with academic achievement.

In conducting the multiple regression analysis, the first step taken by the researcher was to examine the independent variables to be included in the regression analysis for the presence of multicollinearity. According to Hair, et al. (1998) “multicollinearity occurs when any single

independent variable is highly correlated with a set of other independent variables” (p. 143).

When an independent variable is perfectly correlated with another independent variable (correlation of 1.0) a singularity exists (Hair, et al., 1998). This must be removed as it prevents any estimation of coefficients. Each independent variable was assessed for multicollinearity with other independent variables. No cases of excess multicollinearity existed in the data.

Table 9
Relationship between Selected Demographic Characteristics and Academic Achievement of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

Variable	r	p
Departmental Student Organization	.20	.003
Father—Graduate Degree	.18	.008
Service Organization	.18	.008
Sports	-.14	.030
Professional Organization	.12	.058
Mother—High School Completed	-.11	.078
Father—College Degree	-.08	.131
Parents Divorced	-.08	.145
Pretest Self-Esteem Score	.07	.186
Gender	-.07	.158
Parents Married	.06	.201
Collegiate FFA/Collegiate 4-H	-.06	.200
Father--High School Completed	-.06	.193
Caucasian	.05	.262

(table continued)

Age	.05	.253
Mother—College Degree	.05	.256
Religious Organization	.05	.248
African American	-.05	.258
Residence—On Campus Ag Residential College	.04	.279
Residence—Off Campus in Apartment	-.04	.310
Academic fraternity	.03	.358
Mother—Some College	.02	.398
Mother—Graduate Degree	.02	.392
Hispanic	-.02	.415
Residence—On Campus	-.02	.381
Student Government	-.02	.372
Residence—Off Campus with Parents	.02	.384
Brock and Bridle Club	.01	.434
Father—Some College	-.01	.423
Social sorority/fraternity	.00	.496

Note: $n = 186$

Table 10 presents the results of the multiple regression analysis utilizing academic achievement as the dependent variable. The variable which entered the regression model first was Departmental Student Organization. Considered alone, this variable explained 3.9% of the variance in academic achievement of students in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States during the first semester of college enrollment.

Three additional variables explained an additional 6% of the variance in academic achievement. Those variables were “Graduate Degree” as father’s highest level of education, membership in “Service Organizations,” and “Sports.” The four variables which entered into the regression model explained 9.9% of the variance in academic achievement of students in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States during the first semester of college enrollment (See Table 9). The nature of the influence of the variables that entered the model was such that students who held membership in departmental student organizations tended to have higher grade point averages during the first semester of college enrollment. In addition, students whose fathers held graduate degrees and those who responded that they were members of service organizations also tended to have higher grade point averages during the first semester of college enrollment. Participation in sports, however, had a negative influence on academic achievement. The nature of the influence was such that students who participated in sports tended to have lower grade point averages.

Table 10
Multiple Regression Analysis of Academic Achievement as Measured by First Semester Grade Point Average and Selected Demographic Characteristics of Freshman Students in the College of Agriculture at a Research-Extensive University

ANOVA				
Source of Variation	<u>df</u>	<u>MS</u>	<u>F-ratio</u>	<u>p</u>
Regression	4	2.689	4.959	.001
Residual	181	.542		
Total	185			
Model Summary				

(table continued)

<u>Model</u>	<u>R</u>	<u>R²</u> <u>Cumulative</u>	<u>R²</u> <u>Change</u>	<u>F</u> <u>Change</u>	<u>df1</u>	<u>df2</u>	<u>Sig. F</u> <u>Change</u>	<u>β</u>
Departmental Student Organization	.197	.039	.039	7.463	1	184	.007	.150
Father— Graduate Degree	.258	.067	.028	5.407	1	183	.021	.176
Service Organization	.295	.087	.021	4.124	1	182	.044	.132
Sports	.314	.099	.012	2.315	1	181	.130	-.109

Variables not in the Equation

<u>Variables</u>	<u>t</u>	<u>Sig. t</u>
Age	.522	.602
Father—High School	-.479	.632
Father—Some College	1.015	.311
Father—College Degree	-.568	.571
Mother—High School	-1.108	.269
Mother—Some College	.249	.803
Mother—College Degree	1.141	.255
Mother—Graduate Degree	-.694	.489
Parents—Married	.113	.910
Parents-Divorced	-.717	.474
Race-African American	-.918	.360
Race—Caucasian	.787	.432
Race—Hispanic	-.309	.758
Gender	-.699	.485
Residence—on Campus	-.035	.972
Residence—Ag Residence College	.020	.984
Residence—Off Campus with Parents	.582	.561
Residence—Off Campus in Apartment	-.389	.698
Social Sorority/Fraternity	.073	.942
Academic Fraternity	.082	.935
Student Government Organization	-.592	.555
Collegiate FFA/4-H	-1.125	.262
Brock and Bridle Club	.097	.923
Professional Organization	.635	.526
Religious Organization	.455	.650
Self-Esteem Score	.921	.358

Objective Eight

The eighth objective of the study was to determine if a model existed explaining a significant portion of the variability in their self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the end of the first semester of college enrollment among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States from the following:

- a. Academic achievement, as measured by overall high school grade point average;
- b. Age;
- c. Highest level of education completed by father;
- d. Highest level of education completed by mother;
- e. Marital status of parents;
- f. Race;
- g. Gender;
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

Again, the researcher used multiple regression analysis to accomplish this objective. In conducting the multiple regression analysis, the dependent variable was self-esteem among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States, as measured by the Coopersmith Inventory, at the end of the first semester of college enrollment. The variable was a continuous variable measured on an interval scale of measurement. The independent variables included academic achievement and age which were also measured as continuous variables on an interval scale. The other independent variables were highest level of education of father, highest level of education of

mother, marital status of parents, race, place of residence during the first semester of college, and whether or not the student held membership in selected groups and organizations during the first semester of college enrollment. These independent variables were categorical in nature and had to be restructured as dichotomous variables in preparation for entry into the analysis.

Gender was also a categorical variable. However, since its natural occurrence is a dichotomy, it did not have to be restructured. Once again, stepwise entry of variables was used, and variables that increased the explained variance by one percent or more were entered into the regression equation as long as the overall equation remained significant.

As in objective seven, the categorical variable whether or not the student held membership in selected groups and organizations during the first semester of college enrollment was measured in 14 response categories. Three of these 14 categories band, cheerleader, and university publication did not have adequate frequencies to include as a variable of investigation. In addition, the response “Other” was not included since the variety of responses created a variable with little continuity. Remaining categorical responses were restructured to dichotomous variables. For example, the categorical response “Social Sorority/ Fraternity” was restructured to a dichotomous variable “Member of a Social Sorority/Fraternity” or “Not a Member of a Social Sorority/Fraternity.” The variable was then entered into the regression analysis as an independent variable. Similarly, the variable “Religious Organization” which was a response to the categorical variable regarding membership in organizations was restructured as “Membership in a Religious Organization” or “No Membership in a Religious Organization.” Established as such it was used for entry into the analysis. Ten of the 14 categories that had 10 or more responses were restructured in this way.

The categorical variable “Highest Level of Education of Father” was measured in four response categories. Each of these four response categories was established as a separate dichotomous variable. For example the response “Graduate Degree” as the highest level of education completed by father was specified as “Graduate Degree” or “No Graduate Degree,” and this dichotomous variable was entered into the regression analysis as an independent variable. The categorical variable “Highest Level of Education of Mother” was measured in the same four response categories, “High School Completed,” “Some College,” “College Degree,” and “Graduate Degree.” As with the categorical variable “Highest Level of Education of Father,” each of the four response categories was restructured as a separate dichotomous variable for entry into the analysis as an independent variable.

With regard to the categorical variable “Marital Status of Parents,” there were five response categories. In this instance three of the response categories, single, separated, and widowed did not have adequate frequencies to be included as a variable of investigation. The response categories “Married” and “Divorced” were restructured as dichotomous variables. For example, the response “Divorced” was restructured as “Divorced” or “Not Divorced” to be entered into the regression analysis.

Finally, the categorical variable “Place of Residence during the First Semester of College” included four response categories. These response categories “Residing on Campus,” “Residing on Campus in the Agriculture Residential College,” “Residing off Campus with Parents,” and “Residing off Campus in an Apartment” were each established as a dichotomous variable. For example, the response “Residing on Campus” was specified as “Residing on Campus” or “Not Residing on Campus.”

Bivariate correlations are presented in Table 11. These correlations, presented for descriptive purposes, represent those between the demographic characteristics used as independent variables and the self-esteem of students in the College of Agriculture at a Research-Extensive University during the first semester of college enrollment. Six variables were found to be significantly correlated with self-esteem. The variable with the highest correlation was “Age” ($r = -.18$, $p = .013$). The variables “Social Sorority/Fraternity” ($r = .18$, $p = .014$), “Residence off Campus in an Apartment” ($r = -.17$, $p = .020$), “Religious Organization” ($r = .15$, $p = .032$), “Hispanic Race” ($r = -.14$, $p = .040$), and “African American Race” ($r = .14$, $p = .046$) were also significantly correlated with the variable self-esteem.

The first step taken by the researcher in conducting the multiple regression analysis was to examine the independent variables to be included in the analysis for the presence of multicollinearity. High multicollinearity exists if the correlation between any two or more independent variables approaches 1.0. A singularity exists if the correlation coefficient is equal to 1.0. This must be removed as it prevents the estimation of coefficients (Hair, et, al., 1998). Each independent variable was assessed for multicollinearity with other independent variables. No cases of excess multicollinearity existed in the data.

Table 12 presents the results of the multiple regression analysis utilizing self-esteem as the dependent variable. The variable which entered the regression model first was “Age.” Considered alone, this variable explained 3.3% of the variance in the self-esteem of students in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States during the first semester of college enrollment.

Table 11

Relationship between Selected Demographic Characteristics and Self-Esteem of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

Variable	r	p
Age	-.18	.013
Social Sorority/Fraternity	.18	.014
Residence—Off Campus in Apartment	-.17	.020
Religious Organization	.15	.032
Race—Hispanic	-.14	.040
Race—African American	.14	.046
Mother—Graduate Degree	.13	.053
Father—Graduate Degree	.13	.059
Residence—On Campus Ag Residential College	.11	.088
Student Government Organization	.11	.097
Mother—High School Completed	-.09	.146
Residence—On Campus	.09	.143
Father—High School Completed	-.09	.140
Mother—Some College	-.08	.158
Overall High School GPA	.08	.168
Academic Fraternity	.07	.196
Collegiate FFA/ 4-H	-.07	.198
Race—Caucasian	.06	.250
Father—Some College	-.06	.249
Residence—Off Campus with Parents	-.06	.240

(table continued)

Departmental Student Organization	.05	.289
Parents—Married	.05	.282
Father—College Degree	.04	.325
Service Organization	-.04	.323
Professional Organization	.03	.344
Mother—College Degree	.03	.377
Brock and Bridle Club	-.03	.360
Gender	.02	.402
Sports	-.02	.407
Parents—Divorced	.01	.453

Note. $n = 149$

Six additional variables explained an additional 14% of the variance in self-esteem. Those variables were “Social Sorority/Fraternity,” “Hispanic Race,” “Graduate Degree” as father’s highest level of education, membership in a “Religious Organization,” “African American Race,” and “Caucasian Race.” The seven variables which entered into the regression model explained 17.3% of the variance in the self-esteem of students in the College of Agriculture at a Research-Extensive University during the first semester of college enrollment (See Table 12). The nature of the influence of the variables that entered into the model was such that students who held membership in social sororities/fraternities tended to have higher self-esteem scores during the first semester of college enrollment. In addition, students whose fathers held graduate degrees, students who held membership in religious organizations, and those students who were African American or Caucasian also tended to have higher self-esteem scores during the first semester of college enrollment. For the variable “Age” and “Hispanic Race” the

nature of the influence was such that older students and students who were of the Hispanic race tended to have lower self-esteem scores during the first semester of college enrollment.

Table 12
Multiple Regression Analysis of Self-Esteem as Measured by the Coopersmith Inventory and Selected Demographic Characteristics of First Semester Freshman Students in the College of Agriculture at a Research-Extensive University

ANOVA								
Source of Variation	df	MS		F ratio		p		
Regression	7	1172.310		4.220		<.001		
Residual	141	277.795						
Total	148							
Model Summary								
Model	R	R ² Cumulative	R ² Change	F Change	df1	df2	Sig. F Change	β
Age	.183	.034	.034	5.106	1	147	.025	-.197
Social— Sorority/ Fraternity	.247	.061	.028	4.304	1	146	.040	.159
Hispanic	.296	.087	.026	4.146	1	145	.044	-.009
Father— Graduate Degree	.337	.114	.026	4.291	1	144	.040	.152
Religious Organization	.361	.130	.017	2.733	1	143	.100	.160
Race-African American	.386	.149	.019	3.138	1	142	.079	.339
Race— Caucasian	.416	.173	.024	4.101	1	141	.045	.290

(table continued)

Variables not in Equation

<u>Variable</u>	<u>t</u>	<u>Sig. t</u>
Father—High School	-.394	.694
Father—Some College	.059	.953
Father—College Degree	.502	.617
Mother—High School	-.288	.774
Mother—Some College	-1.250	.213
Mother—College Degree	.458	.647
Mother—Graduate Degree	.998	.320
Parents—Married	-.183	.855
Parents—Divorced	.833	.406
Gender	.094	.925
Residence—On Campus	.813	.418
Residence—Ag Residential College	.785	.434
Residence—Off Campus with Parent	-.422	.673
Residence—Off Campus in Apartment	-1.361	.176
Academic Fraternity	.152	.879
Sports	-.347	.729
Student Government Organization	.824	.411
Departmental Student Organization	.276	.783
Collegiate FFA/4-H	-1.158	.249
Brock and Bridle Club	-.173	.863
Service Organizations	-1.273	.205
Professional Organizations	.008	.994
High School Overall GPA	-.233	.816

CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Purpose and Objectives

The primary purpose of the study was to determine if a relationship existed between self-esteem and academic achievement among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. The primary dependent variable in the study was academic achievement of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.

The following specific objectives were formulated to guide the research study:

1. Describe students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on the following demographic characteristics:
 - a. Age;
 - b. Highest level of education completed by father;
 - c. Highest level of education completed by mother;
 - d. Marital status of parents;
 - e. Race;
 - f. Gender;
 - g. Place of residence during the first semester of college; and
 - h. Whether or not the student held membership in selected groups and organizations during the first semester of college.

2. Determine the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States as measured by the Adult Form of the Coopersmith Inventory.
3. Describe students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on academic achievement as measured by their first semester grade point averages.
4. Compare the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States, as measured by the Adult Form of the Coopersmith Inventory, at the beginning and the end of their first semester of college enrollment.
5. Determine if a relationship exists between academic achievement, as measured by high school grade point average, and self-esteem, as measured by the Adult Form of the Coopersmith Inventory at the beginning of the first semester of college enrollment, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.
6. Determine if a relationship exists between self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the beginning of the first semester of college enrollment, and academic achievement, as measured by the first semester of college grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States.
7. Determine if a model exists explaining a significant portion of the variability in their academic achievement, as measured by the first semester grade point average, among

students at the freshman level in the College of Agriculture at a Research-Extensive University from the following:

- a. Self-esteem at the beginning of the semester;
- b. Age;
- c. Highest level of education completed by father;
- d. Highest level of education completed by mother;
- e. Marital status of parents;
- f. Race;
- g. Gender
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

8. Determine if a model exists explaining a significant portion of the variability in their self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the end of the first semester of college enrollment of students at the freshman level in the College of Agriculture at a Research-Extensive University, in the Southern Region of the United States from the following:

- a. Academic achievement as measured by overall high school grade point average
- b. Age;
- c. Highest level of education completed by father;
- d. Highest level of education completed by mother;
- e. Marital status of parents;
- f. Race;

- g. Gender;
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

Summary of Methodology

The target population for the study was defined as all students at the freshman level at a Research-Extensive University in the Southern Region of the United States. The students at the freshman level were defined by the researcher as those students in their first semester of college enrollment. The accessible population was defined by the researcher as all students at one selected Research-Extensive University in the Southern Region of the United States enrolled in the Introduction to Agriculture course which was a requirement for agriculture students at the freshman level. There were 218 students in the accessible population. The sample was defined as 100% of the accessible population. Thus, there were 218 students in the sample for the study.

A non-clinical consent form was completed by each student prior to the completion of the three instruments used for the collection of data. The first instrument used was the Adult Form of the Coopersmith Inventory. This instrument used for individuals over 15 years of age consists of 25 items or statements to which the student responds “like me” or “unlike me” (Coopersmith, 1987, p.7). The statements are related to one’s attitude regarding self and are indicative of high self-esteem or low self-esteem.

The second instrument was a researcher-designed questionnaire used to collect demographic information including educational level of father, educational level of mother, marital status of parents, place of residence during the first semester of college, and group affiliation.

The third instrument was a recording form on which data from the Office of the University Registrar was downloaded and stored. Initially, the researcher met with the Dean of the College of Agriculture of the selected Research-Extensive University to request permission to conduct the study using College of Agriculture students. The Associate Dean of the College of Agriculture of the selected Research-Extensive University was also in attendance at the meeting. Permission and approval to conduct the study were obtained from the Institutional Review Board (IRB) of the selected institution. At the time of the administration of the instruments the researcher commented to students that all information provided would be held in the strictest of confidence, and that all forms would be in the researcher's possession only and stored in a secure place.

Objectives one, two, and three were descriptive in nature and were analyzed using descriptive statistics. Means and standard deviations were used for variables that were measured on an interval scale. Frequencies and percentages were used for variables that were measured on a categorical scale.

The paired t-test was used to analyze the data to accomplish the fourth objective. The variable self-esteem was measured on an interval scale. The paired t-test was used to compare the self-esteem scores of students at the freshman level at the beginning and at the end of the first semester of college enrollment. An *á priori* significance level of $< .05$ was used to determine if the variables were significantly different.

Objective five sought to determine if a relationship existed between academic achievement, as measured by high school grade point average, and self-esteem scores at the beginning of the first semester of college. Objective six sought to determine if a relationship existed between self-esteem scores at the beginning of the first semester of college and academic

achievement as measured by the first semester of college grade point average. Variables in both objectives were measured on an interval scale. The Pearson Product Moment Correlation Coefficients were calculated and interpretations of these correlation coefficients were made using the Davis' descriptors of the degree of association (Davis, 1971). The descriptors include:

$r = .01 - .09$ negligible association

$r = .10 - .29$ low association

$r = .30 - .49$ moderate association

$r = .50 - .69$ substantial association

$r > .70$ strong association

Multiple regression analysis was used to accomplish objectives seven and eight of the study. In objective seven the dependent variable was academic achievement as measured by the first semester grade point average. This variable was measured on an interval scale. The independent variables were entered as either continuous or dichotomous variables as appropriate. In objective eight, the dependent variable was self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the end of the first semester of college. This variable was measured on an interval scale. The independent variables were again entered as either continuous or dichotomous variables as appropriate.

Summary of Major Findings

Objective One

The first objective of the study sought to describe the students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on selected demographic characteristics. The students were described according to the following demographic characteristics:

- a. Age;
- b. Highest level of education completed by father;
- c. Highest level of education completed by mother;
- d. Marital status of parents;
- e. Race;
- f. Gender;
- g. Place of residence during the first semester of college; and
- h. Whether or not the student held membership in selected groups and organizations during the first semester of college

Findings for objective one indicated the age of respondents ranged from 17 to 23 years.

A majority of the students ($n = 182$, 83.5%) were 18 years of age. Seventeen (3.6%) of the students were 17 years of age, while 26 (11.9%) of the respondents were 19 years of age. One (0.5%) student was 20 years of age and one (0.5%) student was 23 years of age. The mean age of the respondents was 18.59 years ($SD = 0.54$). A majority of the respondents were identified as female ($n = 172$, 78.9%). Forty-six (21.1%) were identified as male. Similarly, a majority ($n = 108$, 84.1%) of the students were identified as White/NonHispanic, while 17 (8.0%) of the students were identified as Black/NonHispanic, and 14 (6.5%) of the students were identified as Hispanic. Two (0.9%) of the students identified themselves as Asian. A majority of the students ($n = 132$, 70.6%) indicated their parents were married. Thirty-seven (19.8%) of the respondents reported their parents to be divorced.

Regarding the highest level of education completed by parents, 58 (31.2%) of the students indicated their fathers had completed college, while 39 (21.0%) respondents indicated their fathers had graduate degrees. Eighty-five (45.2%) of the students reported their mothers had graduated from college, and 37 (19.7%) indicated their mothers had graduate degrees.

In reference to the place of residence during the first semester of college, of the 188 respondents, 32.4% ($n = 61$) of the students reported they lived on campus. In addition, 30.3% ($n = 57$) of the students reported living in the Agricultural Residential College Hall. Twenty (10.6%) of the students reported they lived off campus with their parents, while 50 (26.2%) indicated they lived off campus in an apartment or similar living arrangement.

At the pretest measurement point of the first semester of college enrollment, 33.0% ($n = 62$) of the students indicated membership in social sororities/fraternities. Service organizations were indicated as the organizations with the second largest membership ($n = 54$, 28.7%). Seventeen (9.0%) of the students indicated they held membership in Collegiate FFA/4-H, and 16 students (8.5%) reported they were members of the Brock and Bridle Club. The organization reported to have the least participation was a university publication ($n = 1$, 0.5%).

Objective Two

This objective was to determine the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States as measured by the Adult Form of the Coopersmith Inventory. The pretest measurement was made at the beginning of the semester and the posttest measurement was made at the end of the first semester of college enrollment. The pretest measurement scores ranged from the highest value of 96.0 to the lowest value of 24.0. The mean score for self-esteem at the pretest measurement was 70.43 ($SD = 17.64$). At the posttest measurement at the end of the first semester of college, the mean self-esteem score was 73.33 (18.08). The highest value recorded was 100.0, while the lowest value was 24.0. Normative data for each of the data collection points were established by specifying the highest quartile of scores as high self-esteem, the lowest quartile as low self-esteem, and the middle two quartiles as moderate self-esteem. At the

pretest measurement high self-esteem (75th percentile or higher) raw scores ranged from 84 to 100. Moderate self-esteem (26th-74th percentile) raw scores ranged from 61 to 83, and low self-esteem (25th percentile or lower) were 60 or lower. The same normative data were used at the posttest measurement at the end of the semester. At the pretest measurement, the largest number of students ($\underline{n} = 80$, 42.6%) had scores within the moderate range. At the posttest measurement, again the largest number of students ($\underline{n} = 65$, 39.9%) had scores within the moderate range.

Objective Three

Objective three of the study was to describe the students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States on academic achievement as measured by their first semester grade point averages. First semester grade point averages ranged from 0.0 to 4.0. The mean grade point average was 2.71 ($\underline{SD} = 0.80$). Thirty-seven (17.2%) students had grade point averages ranging from 3.6 to 4.0, while seven students (3.3%) had grade point averages which ranged from 0.0 to 1.0.

Objective Four

The fourth objective of the study was to compare the self-esteem of students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States, as measured by the Adult Form of the Coopersmith Inventory, at the beginning and the end of the first semester of college. There was a significant difference between the self-esteem scores at the pretest and posttest measurement ($\underline{t}_{150} = 3.508$, $p = .001$). The mean self-esteem score at the end of the semester ($\underline{M} = 74.15$, $\underline{SD} = 18.08$) was significantly higher than the mean self-esteem score at the beginning of the semester ($\underline{M} = 70.99$, $\underline{SD} = 17.48$).

Objective Five

Objective five of the study was to determine if a relationship existed between academic achievement, as measured by high school grade point average, and self-esteem, as measured by the Adult Form of the Coopersmith Inventory at the beginning of the first semester of college enrollment, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. No significant correlation was found between the overall high school grade point average and the self-esteem scores of students at the beginning of the first semester of college ($r = .123$, $p = .091$). In addition, no significant correlation was found between the high school honors grade point average and the self-esteem scores of students at the beginning of the first semester of college ($r = .112$, $p = .126$).

Objective Six

The sixth objective of the study was to determine if a relationship existed between self-esteem, as measured by the Adult Form of the Coopersmith Inventory at the beginning of the first semester of college, and academic achievement, as measured by the first semester grade point average, among students at the freshman level in the College of Agriculture at a Research-Extensive University in the Southern Region of the United States. The computed coefficient revealed no significant correlation between the self-esteem scores at the beginning of the first semester of college and the first semester grade point average of students ($r = .081$, $p = .266$).

Objective Seven

Objective seven sought to determine if a model existed explaining a significant portion of the variability in their academic achievement, as measured by the first semester grade point

average among students at the freshman level in the College of Agriculture at a Research University in the Southern Region of the United States from the following:

- a. Self-esteem at the beginning of the semester;
- b. Age;
- c. Highest level of education completed by father;
- d. Highest level of education completed by mother;
- e. Marital status of parents;
- f. Race;
- g. Gender;
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

Utilizing multiple regression analysis the first variable which entered the model was “Departmental Student Organization.” Considered alone, this variable explained 3.9% of the variance in academic achievement. Three additional variables explained an additional 6% of the variance in academic achievement. Those variables were “Graduate Degree” as father’s highest level of education, “Member Service Organization,” and “Sports.” The four variables which entered the regression model explained 9.9% of the variance in academic achievement. The nature of the influence of the variables that entered the model was such that students who held membership in student organizations tended to have higher grade point averages during the first semester of college. In addition, students whose fathers held graduate degrees and those involved in service organizations also tended to have higher grade point averages during the first semester of college enrollment. Participation in sports, however, had a negative influence on

academic achievement. The nature of the influence was such that students who participated in sports tended to have lower grade point averages.

Objective Eight

The eighth objective sought to determine if a model existed explaining a significant portion of the variability in their self-esteem, as measured by the Adult Form of the Coopersmith Inventory, at the end of the first semester of college enrollment among students at the freshman level of the College of Agriculture at a Research-Extensive University from the following:

- a. Academic achievement as measured by overall high school grade point average;
- b. Age;
- c. Highest level of education completed by father;
- d. Highest level of education completed by mother;
- e. Marital status of parents;
- f. Race;
- g. Gender;
- h. Place of residence during the first semester of college; and
- i. Whether or not the student held membership in selected groups and organizations during the first semester of college.

The first variable to enter the model utilizing multiple regression analysis was “Age.” This variable considered alone explained 3.3% of the variance in the self-esteem of students during the first semester of college. Six additional variables explain an additional 14% of the variance in self-esteem. Those variables were “Social Sororities/Fraternities,” “Hispanic Race,” “Graduate Degree” as father’s highest level of education, membership in a “Religious Organization,” “African Race,” and “Caucasian Race.” The seven variables which entered into

the regression model explained 17.3% of the variance in the self-esteem of students. The nature of the influence of the variables that entered into the model was such that students who held membership in social sororities/fraternities tended to have higher self-esteem scores during the first semester of college. In addition, students whose fathers held graduate degrees, students who held membership in religious organizations, and those students who were African American or Caucasian also tended to have higher self-esteem scores during the first semester of college. For the variable “Age” and “Hispanic Race” the nature of the influence was such that older students and students who were of the Hispanic Race tended to have lower self-esteem during the first semester of college.

Conclusions and Recommendations

Based on the findings of the study, the researcher presents the following conclusions and recommendations:

Conclusion One

A majority of the students were Caucasian.

This conclusion is based on the findings that 84.1% ($n = 180$) of the students were identified as White/Non-Hispanic. These findings are consistent with findings of Dyer et al. (1999) in their study of freshmen students in the College of Agriculture at Iowa State University regarding the racial composition of this group. The findings are also consistent with those of Bettencourt et al. (1999), in which 77% of first year, first-semester students were White. In this study 19% of the participants were Black, while 2% of the students were Hispanic and 2% were Asian/Asian American (Bettencourt et al., 1999).

This researcher considers the findings to have implications regarding the recruitment of minority students to colleges of agriculture. The findings speak to all institutions of higher

learning. The racial composition of students at the freshman level in the present study is not reflective of the diverse groups of people living in the United States today. According to estimates released by the United States Census Bureau, the nation's Hispanic and Asian populations continue to grow at much faster rates than the population as a whole. The population of Hispanics who may or may not be White accounted for approximately one-half of the 9.4 million residents added to the nation's population since the 2000 Census (United States Census Bureau, 2009). The Non-Hispanic White population is to increase by 7% between 2000 and 2050, with the group projected to lose population in the 2040s. The Black population is projected to rise from 35.8 million to 61.4 million by 2050, a 71% increase (United States Census Bureau, 2009). The diversity of groups within colleges of agriculture and all institutions of higher learning should be consistent with those of the present society and beyond. The institutions of higher learning provide the environments for the preparation of students to work and function in a society representative of many groups.

The researcher recommends the colleges of agriculture at research-extensive universities conduct further study regarding the racial composition of the students and why minority students enter colleges of agriculture at the freshman level. A qualitative research study could be conducted in which focused interviews would be used to obtain data from minority students regarding their perceptions of their experiences during the recruitment process, admission procedures, and orientation to the institution. Information could be gathered from these students regarding their academic experiences and social adjustment during the first semester of college enrollment. Findings of such a study could be used by the recruitment office of the College of Agriculture and of the university, as well as the office of admissions and the office of diversity or minority affairs for the strategic planning of efforts to establish more effective recruitment

functions to attract minority students to the College of Agriculture, and the university at large. Findings would also serve the efforts of programs to enhance experiences which elicit more positive responses to the first semester of college.

Conclusion Two

A majority of the students at the freshman level were female.

This conclusion is based on the finding that 172 (78.9%) of the students at the freshman level in the College of Agriculture was identified as female. This finding is inconsistent with the study of Son (1975) involving first term freshmen in which the sample of 322 entering freshmen consisted of 68 females and 254 males. It is, however, consistent with findings of Dyer et al. (1999) in which 76.1% of the respondents disagreed that agriculture courses in college were better suited to male students. These findings have implications for agricultural education which has been traditionally male at the secondary and post secondary levels. This situation continues to change as more females become interested in pursuing a college degree in the field of agriculture and assume leadership roles in the agricultural industry.

This researcher recommends that the College of Agriculture at the Research-Extensive University where the present study was conducted initiate further research that would involve the identification of specific majors to determine the extent to which gender progress has been made in nontraditional area majors. For example the study could gather data to determine if real progress has been made in a major such as animal science. If the follow-up study finds a substantial increase in enrollment of females in this major, then the question becomes what has brought about progress in recruitment of females into nontraditional majors.

Conclusion Three

A majority of the students came from homes with a traditional family structure.

This conclusion is based on the findings that 132 (70.6%) of the students indicated their parents were married. These findings are consistent with the historically traditional farm family and earlier studies regarding traditional families in rural settings. In a study of the influence of self-esteem on academic achievement of rural ninth grade students at one rural high school in Louisiana (Gaspard & Burnett, 1991) 83.3% ($n = 55$) of the respondents indicated their traditional family unit was intact. Twelve percent ($n = 8$) of the students indicated they were from homes where the parents were divorced.

The findings are, however, inconsistent with comments of Broido (2004) that there has been a change in the family structures in which the Millennial generation has been reared. These students, more than any other generation, have come from single-parent homes, as well as blended families and stepfamilies.

Conclusion Four

Freshman students in the College of Agriculture had a moderate level of self-esteem.

This conclusion is based on the findings that at the pretest measurement most of the students ($n = 80$, 46.2%) had self-esteem scores between the 26th and 74th percentile or raw scores from 61 to 83. At the posttest measurement most of the students ($n = 65$, 39.9%) had self-esteem scores between the 26th and 74th percentile or scores ranging from 61 to 83. Although the overall mean scores at the pretest measurement ($M = 70.43$, $SD = 17.64$) and the posttest measurement ($M = 73.33$, $SD = 18.08$) were in the moderate self-esteem range, it should be noted that these mean scores were above the 50th percentile, and the comparative groups in the normative sample had a mean score of 66.70 ($SD = 19.20$) (Coopersmith, 1987, p. 19). These findings were consistent with those of Gaspard and Burnett (1991) when they studied the influence of self-esteem on academic achievement of ninth grade students in a rural high school.

In their study the School Form of the Coopersmith Inventory was used. This instrument consisted of the subscales General self-esteem, Social-peers, Home-parents, and School-achievement. A Total self-esteem score was reported by totaling all of the four subscales and multiplying the total by two. The largest group of students in the study had scores of moderate levels on all subscales of the instrument (General self-esteem--43.9%; Social-peers--46.9%; Home-parents--45.4%; School-achievement--50%; and Total--48.4%).

Conclusion Five

Students' self-esteem increased from the beginning to the end of their first semester of college.

This conclusion is based on the finding that there was a significant difference in the self-esteem scores at the pretest and posttest measurement ($t_{150} = 3.508$, $p = .001$). The mean self-esteem score of freshman students was 70.99 ($SD = 17.48$) at the pretest measurement and 74.15 ($SD = 18.08$) at the posttest measurement. An increase in self-esteem scores of freshman students from the pretest measurement to the posttest measurement in the present study is relevant for the period of development from late adolescence to early adulthood, the period which coincides with college attendance. A time of change and exploration, it marks movement from parental dependence to individual independence and expectations. This time can be a period that is marked by a decline in self-esteem which is also relevant as one considers those experiences and expectations of the first semester of college and the influence on academic achievement, retention, and graduation from a college or university.

This researcher recommends that researchers in higher education identify factors which promote higher levels of an authentic and healthy self-esteem as they seek to prepare students for leadership positions in their careers of choice. The studies could include the use of instruments

which gather data regarding context related variables which relate specifically to the college environment. The researcher further recommends that the findings be used by college administrators to implement programs that will enhance students' self-esteem as they function in the college setting. For example, social events such as picnics on the president's lawn, activities fostering interpersonal skills among freshmen, and activities consistent with the freshman year experience can enhance the personal and collective self-esteem of students, giving them a sense of belonging and closeness to fellow members of the freshman class which may grow throughout the college years and beyond.

Conclusion Six

Among students in this study there is no relationship between self-esteem and academic achievement.

This conclusion is based on the findings that no significant correlation was found between the overall high school grade point average and the self-esteem scores of students at the beginning of the first semester of college ($r = .123$, $p = .091$). In addition, no significant correlation was found between the high school honors grade point average and the self-esteem scores of students at the beginning of the first semester of college ($r = .112$, $p = .126$). The conclusion is also based on the finding that the computed coefficient revealed no significant correlation between self-esteem scores at the beginning of the first semester of college and the first semester grade point average of students ($r = .081$, $p = .266$).

These findings are inconsistent with the findings of Gaspard (1994) which sought to determine if a relationship existed between academic achievement as measured by end-of-the-year grade point average and subsequent year self-esteem as measured by the School Form of the Coopersmith Inventory in a study of rural high school students. The Coopersmith Inventory had

subscales General self-esteem, School-achievement, Home-parents, Social-peers, and Total self-esteem. The self-esteem measure that was found to have the highest association with academic achievement was the School subscore ($r = .38$, $p = .007$). This relationship was classified as a moderate degree of association using descriptors developed by Davis (1971). The nature of the association was such that students having higher grade point averages at the end of the 9th grade had higher School self-esteem scores at the 10th grade collection point. Data collected at the second data collection point (grade 10 end-of-the-year grade point average and grade 11 self-esteem subscores) revealed a relationship between academic achievement and self-esteem ($r = .39$, $p = .018$). The relationship was classified as a moderate degree of association. The nature of the association was such that respondents who had higher grade point averages tended to have higher School self-esteem scores. At the third data collection point (grade 11 end-of-the-year grade point average and grade 12 self-esteem measures) the School score was found to be correlated with academic achievement. This association was a moderate positive relationship ($r = .46$, $p = .004$). The nature of the relationship was such that those students who had higher grade point averages tended to have higher School self-esteem scores.

The finding that there was no significant relationship between self-esteem and academic achievement during the first semester of college is consistent with findings of Bettencourt et al. (1999) which showed an increase in personal self-esteem to be associated with social and academic adjustment but not with grade point average. While there was no relationship between self-esteem and academic achievement in the present findings, there are implications regarding instrumentation and its use in the measurement of the variable self-esteem. The measurement of self-esteem with the use of the Adult Form of the Coopersmith Inventory for individuals 16 years and above was a more global measurement in the present study. The Student Form of the

Coopersmith Inventory is used with students 15 years and under and has subscales for the measurement of self-attitudes in the areas of personal interests, peers, parents, and school (Coopersmith, 1987). This researcher recommends the development of an instrument to measure self-attitudes regarding constructs specific to the college student. This instrument would serve the function of measuring self-esteem for this intermittent stage in the lives of many young people. It would measure self-esteem as it relates to those aspects of the college years which involve work, additional family responsibilities, and other experiences which become paramount to individuals in this setting. Other instruments have been used in the college setting. One such instrument, the Contingencies of Self-Worth Scale (CSW-65), measures the contingencies or criteria on which individuals base their worthiness (Crocker, 2002). Some of the contingencies measured are internal, while others are external and require validation from others. The instrument has been used to measure the pursuit of self-esteem rather than the level of self-esteem. This researcher recommends the development of an instrument that would include subscales that address the measurement of the level of self-esteem and its influence on variables in various domains of daily activities of college students including academics, social activities, and personal responsibilities such as work and family.

These findings also lead the researcher to recommend that the College of Agriculture at the Research-Extensive University and all colleges of agriculture further study those variables which do impact academic achievement. A qualitative study could be conducted in which personal interviews of first semester freshmen would be used to gather information regarding students' perceptions of and attitudes toward existing programs which facilitate adjustment to the college environment. Academic counselors could benefit from findings of such studies as they advise students regarding semester courses and plan and implement academic tutoring for those

students in need of additional instructional opportunities and assistance. Such information as the student's involvement in work-related activities can be used in scheduling academic tutoring. Information can also be used in the development of mentoring programs involving upper class students as mentors and tutors within the College of Agriculture.

Conclusion Seven

Participation in extracurricular activities had an influence on academic achievement of college freshmen.

This conclusion is based on the findings that participation in departmental student organizations explained 3.9% of the variance in academic achievement. Two additional participation variables membership in service organizations (R^2 change = .021) and participation in sports (R^2 change = .012) explained an additional 3.3% of the variance. The nature of the influence of the variables that entered the model was such that students who held membership in service organizations tended to have higher grade point averages during the first semester of college. However, participation in sports had a negative influence on academic achievement. The nature of the influence was such that students who participated in sports tended to have lower grade point averages.

These findings are consistent with those of Bettencourt et al. (1999) in which results of their study led them to suggest academic practitioners should recognize the capacity of group memberships to positively influence adjustment in the college context. Findings regarding the conclusion of the present study would imply that students should be encouraged to participate in departmental student organizations as well as service organizations as they enter the first semester of college enrollment. The variables "Departmental Student Organization" and "Service Organization" entered the regression model explaining a significant portion of the

variance in academic achievement. This finding also follows the intent of Ball et al. (2001) who were interested in studying the influence of the involvement in the agricultural youth organizations 4-H and FFA on academic performance and retention of freshmen in the college of agriculture at the university involved in their research. The researchers determined participation in the agricultural youth organizations at the secondary level positively influenced academic achievement of freshmen students. In addition, participation in agricultural youth organizations was found to have a significant association with retention for the sophomore year (Ball et al., 2001). These findings have implications regarding the present study of freshmen students in the College of Agriculture. This researcher recommends that the College of Agriculture at the Research-Extensive University involved in the study further investigate participation in agricultural student organizations on campus. Students could be surveyed to determine their extent of involvement in these organizations, including their goals for participation. Data gathered in such a study could be used by faculty advisors in further expansion of the programs and in developing future vision and goals for the organizations.

Conclusion Eight

Demographics had an influence on the self-esteem of college freshmen.

This conclusion is based on findings that age explained 3.3% of the variance in the self-esteem of students during the first semester of college. Four additional demographic variables explained 9.5% of the variance in self-esteem. Those variables were “Hispanic Race” (R^2 change = .026), “Graduate Degree” as father’s highest level of education (R^2 change = .026), “African American Race” (R^2 change = .019), and “Caucasian Race” (R^2 change = .024). Students whose fathers held graduate degrees and those students who were African American or Caucasian tended to have higher self-esteem scores during the first semester of college. For the

variable “Age” and “Hispanic Race” the nature of the influence was such that older students and students who were of the Hispanic Race tended to have lower self-esteem during the first semester of college.

The finding that the nature of the influence of age was such that older students tended to have lower self-esteem during the first semester of college has implications in view of comments of Arnett (2000) regarding what he described as emerging adulthood. He (Arnett, 2000) considered emerging adulthood a time of identity exploration and involving trying various life possibilities, gradually making more enduring decisions. A period of development that coincides with college attendance, one’s college education may often be combined with work, family responsibilities, and in some cases may be punctuated with periods of nonattendance.

The finding that the nature of the influence of the variable “Graduate Degree of Father” was such that those students whose fathers with graduate degrees had higher levels of self-esteem implies that these students may have more parental support in the form of knowledge of expectations regarding the first year of college enrollment and guidance during the admissions process. This educational level of the father may also contribute to an economic status that enhances the access of educational opportunity. Both may facilitate adjustment to the demands of the college setting and foster the perception of well-being.

All of the analyzed variables of race entered the regression model. The finding that the nature of the influence of Hispanic Race was such that students of Hispanic Race tended to have lower self-esteem during the first semester of college also has implications when considering self-esteem of students at the freshman level. When one considers that the Hispanic student may be an immigrant or the child of immigrants whose level of English language skills may differ from other freshmen students, there is an emphasis on the demographic shifts evident in the

generation now enrolled in universities (Briodo, 1999). While the number of Hispanic students in higher education is increasing, they are more likely to be the first in their families to attend college (Terenzini, 1996).

The nature of the influence of African American Race was such that students who were African American tended to have higher self-esteem during the first semester of college. This finding has implications for colleges and universities in a society in which the demographic profile of students continues to change. Crocker et al. (1994) in their study of collective self-esteem considered that Black students may exhibit public expressions of self-esteem that are reactions to their heritage of prejudice and discrimination. Higher levels of self-esteem among Caucasian students were consistent with the predominance of literature that addresses this issue. The nature of the association of the different views of diversity and social justice issues become more prevalent considerations for colleges and universities.

This researcher recommends that the College of Agriculture of the Research-Extensive University of the present study address these concerns as they apply to agricultural education at both the secondary and postsecondary levels. This may include a study of agriculture teachers at the secondary level and a collection of their perceptions and considerations of Hispanic students as they enter school systems within the United States. Secondary students have indicated their agriculture teachers to be the most influential source in their decisions to pursue college degrees (Dyer et al., 1999). This accentuates the bond which could be cultivated leading to an interest in and about agriculture and ultimately a positive educational experience at the postsecondary level. Beyond the college classroom there would be implications for employment and leadership in the agricultural industry for a diverse group of individuals in the present generation.

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APPENDIX A

APPLICATION FOR EXEMPTION FROM INSTITUTIONAL OVERSIGHT

Application for Exemption from Institutional Oversight

Unless qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research/projects using living humans as subjects, or samples or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This Form helps the PI determine if a project may be exempted, and is used to request an exemption.



Institutional Review Board
Dr. Robert Mathews, Chair
203 B-1 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
F: 225.578.6792
irb@lsu.edu | lsu.edu/irb

- Applicant, Please fill out the application in its entirety and include the completed application as well as parts A-E, listed below, when submitting to the IRB. Once the application is completed, please submit two copies of the completed application to the IRB Office or to a member of the Human Subjects Screening Committee. Members of this committee can be found at <http://www.lsu.edu/irb/screeningmembers.shtml>
 - A Complete Application Includes All of the Following:
 - (A) Two copies of this completed form and two copies of parts B thru E.
 - (B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1 & 2)
 - (C) Copies of all instruments to be used.
 - If this proposal is part of a grant proposal, include a copy of the proposal and all recruitment material.
 - (D) The consent form that you will use in the study (see part 3 for more information.)
 - (E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB.
- Training link: (<http://phrp.nihtraining.com/users/login.php>.)

1) Principal Investigator: Mae B. Gaspard

Rank: _____

Student? Y/N Y

Dept.: SHREWD

Ph: 225-637-3598

E-mail: mgaspard@lsu.edu

2) Co Investigator(s): please include department, rank, phone and e-mail for each

* If student, please identify and name supervising professor in this space

Michael Burnett, Professor

SHREWD

225-578-5748

voebure@lsu.edu

3) Project

Title:

The Influence of Self-Esteem and Selected Demographic Characteristics on the Academic Achievement of Freshman Students Enrolled in the College of Agriculture at Louisiana State University

4) LSU Proposal?(yes or no) No If Yes, LSU Proposal Number _____

Also, if YES, either ☐ This application completely matches the scope of work in the grant

OR

☐ More IRB Applications will be filed later

5) Subject pool (e.g. Psychology Students) Agriculture Freshman Students

• Circle any "vulnerable populations" to be used: (children <18; the mentally impaired, pregnant women, the aged, other). Projects with incarcerated persons cannot be exempted.

6) PI Signature Mae B. Gaspard

** Date 08/06/08 (no per signatures)

"I certify my responses are accurate and complete. If the project scope or design is later changed I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

Study Exempted By:
Dr. Robert C. Mathews, Chairman
Institutional Review Board
Louisiana State University
203 B-1 David Boyd Hall
225-578-8692 | www.lsu.edu/irb
Exemption Expires: 6-24-2011

IRB# E 4156 LSU Proposal# _____
☒ Complete Application
☒ Human Subjects Training

Screening Committee Action: Exempted ☒ Not Exempted _____ Category/Paragraph 2

Reviewer Mathews

Signature Robert C. Mathews

Date 8/25/08

APPENDIX B

CONSENT FORM

Consent Form for a Non-Clinical Study

1. Study Title: The Influence of Self-Esteem and Selected Demographic Characteristics on the Academic Achievement of Freshman Students Enrolled in the College of Agriculture at Louisiana State University
2. Performance Site: Louisiana State University and Agricultural and Mechanical College
3. Investigators: The following investigators are available for questions about this study,
Monday–Friday, 8:00 AM–4:30 PM.
Mae B. Gaspard 225-637-3598
Dr. Michael Burnett 225-578-5748
4. Purpose of the Study: The purpose of the study is to determine if a relationship exists between self-esteem and the academic achievement of freshman students enrolled in the College of Agriculture at Louisiana State University.
5. Subject Inclusion: Freshman students enrolled in the College of Agriculture at Louisiana State University
6. Number of subjects: Approximately 200
7. Study Procedures: Freshman students will spend approximately 10-15 minutes completing instruments on prearranged dates at the beginning and the end of the fall semester of 2008. Student grades will be matched to their scores on the survey instruments completed.
8. Risks: There will be no known study risk. Only the researchers involved in the study will have access to the survey forms and all completed survey forms will be maintained in a secure area.
9. Right to Refuse: Subjects may choose not to participate in the study.
10. Privacy: Results of the study will be reported in a doctoral dissertation and may lead to publication in an academic journal. However, no names or identifying information will be included in the dissertation or any publication.
11. Signatures:

The study and instructions for completing the study instruments have been discussed with me and all of my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects' rights or other concerns, I can contact Robert C. Matthews, Institutional Review Board, (225) 578-8692, www.lsu.edu/irb. I agree to participate in the study described above and acknowledge the investigator's obligation if requested to provide me with a signed copy of this consent form.

Subject Signature: _____ Date: _____

Printed Name: _____

APPENDIX C

PERMISSION TO USE SAMPLES OF COPYRIGHT MATERIAL



www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material;

Instrument: ***Coopersmith Self-Esteem Inventories Adult Form***

Author: ***Stanley Coopersmith, Ph.D.***

Copyright: ***1975, 2002 Stanley Coopersmith***

for his/her thesis research.

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

A handwritten signature in black ink, appearing to read "Vicki Jaimez", written in a cursive style.

Vicki Jaimez
Mind Garden, Inc.
www.mindgarden.com

APPENDIX D

SAMPLES OF COPYRIGHT MATERIALS

Coopersmith Inventory Adult Form

Sample Items

Like Me

Unlike Me

[]

[]

1. Things usually don't bother me.

[]

[]

2. I find it very hard to talk in front of a group.

[]

[]

3. There are lots of things about myself I'd change if I could.

[]

[]

4. I can make up my mind without too much trouble.

[]

[]

5. I'm a lot of fun to be with.

APPENDIX E

COLLEGE OF AGRICULTURE FRESHMAN QUESTIONNAIRE

College of Agriculture Freshman Questionnaire

Instructions: Please place the appropriate answer in the spaces provided or check the most appropriate response for each question below.

1. How much education did your father complete?
☐ a. less than high school
☐ b. high school completed
☐ c. some college
☐ d. college completed
☐ e. graduate degree completed (e.g. M.S., Ph.D.)
2. How much education did your mother complete?
☐ a. less than high school
☐ b. high school completed
☐ c. some college
☐ d. college completed
☐ e. graduate degree completed (e.g. M.S., Ph.D.)
3. What is the marital status of your parents (check only one)?
☐ married ☐ divorced ☐ single ☐ separated ☐ widowed
4. When you were in elementary school did you mother work outside of the home?
☐ yes, throughout the time I was in elementary school
☐ yes, some of the time I was in elementary school
☐ no, my mother did not work outside of the home while I was in elementary school
5. What is your place of residence this semester?
☐ on campus (e. g. residence hall)
☐ Agriculture residential college on campus
☐ off campus with parents
☐ off campus in an apartment, etc.
6. With what groups do you plan to be affiliated during your freshman year? Check all that apply.
☐ a. social sorority/fraternity
☐ b. academic fraternity (e. g. Gamma Sigma Delta)
☐ c. sports
☐ d. university publication (e. g. the *Reveille*)
☐ e. student government
☐ f. departmental student organization
☐ g. band
☐ h. cheerleader
☐ i. Collegiate FFA/Collegiate 4-H
☐ j. Brock and Bridle Club
☐ k. service organization
☐ l. professional organization
☐ m. Religious organization
☐ n. other (please specify) _____

VITA

Mae Blanchard Gaspard was born in September 1950, in Monroe, Louisiana. She obtained her high school education at Livonia High School in Livonia, Louisiana. She completed a Bachelor of Science degree in nursing with honors from Northwestern State University in Natchitoches, Louisiana, in 1972. She received a Master of Science degree in vocational education from Louisiana State University in Baton Rouge, Louisiana, in 1994. She was elected to Alpha Lambda Delta as a college freshman. She holds membership in Phi Kappa Phi, the Louisiana School Nurses Association, and the National Association of School Nurses.

In 1991, Mae co-authored an article entitled “The Relationship between Self-Esteem and Academic Achievement of Rural 9th Grade Students” in *The Journal of Rural and Small Schools*.

Mae’s work experiences include that of a registered nurse in the hospital setting and more recently as a school nurse in the public school setting in rural South Louisiana. She has also acted in the capacity of a graduate assistant in Career Services at Louisiana State University.

Mae is married to Camile Gaspard and has a son, John, and daughter and son-in-law, Mary and Odie Roberts. She also has two granddaughters Katherine and Abbagayle. Her other activities and interests encompass participation in church and school activities along with volunteer nursing activities.