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# A Comparison of Academic Motivation of Academically Prepared and Academically Unprepared Community College Students

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# A COMPARISON OF ACADEMIC MOTIVATION OF ACADEMICALLY PREPARED AND ACADEMICALLY UNPREPARED COMMUNITY COLLEGE STUDENTS

By

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## ABSTRACT

Community colleges across the nation have the challenge to educate students who come to postsecondary education at varying levels of academic preparedness. Cross (2001) and others (Agbor-Baiyee, 1997; Dweck, 2000; Hamilton, 1996; Hynd, Holschuh, & Nist, 2000; Miller, DeBacker, & Green, 1999; Struthers & Menec, 1996; Tuckman, 1996; Yair, 2000) have reported on the importance of motivation and its relationship to student learning. Although the research has proven to be of great value, it often excludes a comparison of academic preparedness and the impact academic preparedness may have on motivation. This study compared academic motivation between academically prepared and academically unprepared community college students. In addition, the researcher collected data to determine whether a relationship exists between academic motivation level and academic achievement as defined by grade point average. Surveying students from a community college in northwest Florida, the Academic Motivation Scale (AMS-C) was used to assess motivation along a continuum as described by Deci and Ryan's (1985) self-determination theory. Results from this study indicate that there are motivational similarities between academically prepared and academically unprepared students and that there is a relationship between motivational levels and academic success.

# CHAPTER 1
# INTRODUCTION

High school grades have been useful in predicting college academic success for students, but what moves students to achieve in either of these academic settings? Because students who make good grades in high school usually make good grades in college, something must be consistent in students' approach to education that motivates them to perform in ways that produce good grades. Because high school grades predict college performance, students who perform poorly in high school have a strong tendency to perform poorly in college. But precisely what factors influence this relationship? Do students who perform poorly in college do this because of their lack of preparation in high school? Do they understand the connection between effort and academic success? Have they learned academic skills such as how to study and how to take a test? Do they understand time management? Are they exhibiting a lack of motivation to academically achieve? A variety of factors contribute to college students' academic achievement. This study focused on motivation and its value as a component of academic achievement. The aim was to identify any difference in motivational levels of academically prepared and academically unprepared students and to assess any relationship existing between motivational levels and academic achievement.

The community college offered an ideal environment for the study of these two different groups because it is the community college where both academically prepared and academically unprepared students have the opportunity to pursue postsecondary education. Community colleges offer postsecondary education for students who possess college-level academic skills or who are academically prepared, while unprepared

students are admitted for community college enrollment in courses designed to remediate or develop the skills they lack for college-level study.

Why do some college students seem to have a greater drive to succeed than other students? According to Cross (2001), motivation or the "heart" of why students pursue education is absent when we discuss how to improve learning. She noted the importance of studying motivation and its relationship to student learning and conceded that motivation is an internal concept that is sometimes difficult to assess. In this concession, she charged institutions to realize their influence on student motivation and, ultimately, student success. A number of researchers (Agbor-Baiyee, 1997; Hamilton, 1996; Hynd, Holschuh & Nist, 2000; Miller, DeBacker & Green, 1999; Struthers & Menec, 1996; Tuckman, 1996; Yair, 2000) have studied the link between motivation and learning in college students. These authors acknowledge that students have different reasons for attending college and that a variety of reasons drive them or motivate them to achieve.

Studies performed on university campuses across the nation have applied different motivational theories to explain why students pursue higher education and what moves them to be successful or unsuccessful. McCluskey and Parish (1996) studied unmotivated college students using Glasser's Quality School model; Elton (1996) studied student motivation using Herzberg's theory of motivation; Tuckman's (1996) study centered on incentive motivation; Hynd, Holschuh, and Nist (2000) studied situational motivation; and many (Agbor-Baiyee, 1997; Hamilton, 1996; Liping, 2000; Patrick, Hisley, Kempler & College, 2000; Savage, 1998; Lowman, 1990) have studied motivation dichotomously defined as either an internal or external concept. Cross (2001) explained motivation as the combination of value and expectancy. Deci and Ryan (1985) presented a model of motivation that centered on the concept of three different locales of causation and that within these three different causation locales are specific outcomes for motivation. It is obvious from the different research studies of motivation that the concept is complex and demands further study in the academic setting.

## Purpose of the Study

Cross (2001) reported that community college teachers consider lack of motivation to be one of the most prevalent attitudinal impediments to students' educational success. Although this reported lack of motivation is widespread, Cross

(2001) noted that students are motivated to pursue education and that this is the key component in students' commitment to attaining a postsecondary degree. Although motivation has been studied in community college students, studies have not looked at motivational level in relation to preparedness of community college students. Because community colleges support the mission of educating unprepared students (Cohen & Brawer, 2003) they offer curricula to develop students' skills so that these students may progress to college-level academics (Roueche & Roueche, 1993). Although this developmental curriculum is designed to provide the academic skill sets necessary for college-level preparation, it does not address or develop the student motivation that Cross (2001) reported to be imperative for postsecondary success.

The purpose of the present study was to determine if there are differences of motivational levels between two groups of community college students: academically prepared students and academically unprepared students and if there is a relationship between motivational levels and academic achievement. Lowman (1990) demonstrated that placing value on external rewards diminishes students' fulfillment thus diminishing intrinsic motivation. If remedial students report strong intrinsic motivation, it is evident that extrinsic rewards such as grades, extra-credit, and matriculation to the next course might not serve as motivators for these students. According to Lowman (1990) students might be better served by redesigning curriculum and educational methodology to enhance intrinsic motivation. Lowman (1990) also noted that instructors play a pivotal role in creating an environment in which students may learn to be more intrinsically motivated.

Deci and Ryan (1985) theorized that motivation was not a dichotomous concept, that motivation could be better detailed on a continuum and that an additional component be added. They introduced the component of amotivation, whereby someone does not perceive a connection between effort and outcome. Deci and Ryan's (1985) continuum of motivation includes specific subcategories of intrinsic and extrinsic motivation that account for subtle differences in why people actually do things or exhibit certain behavior. In their work, they noted the application of their concept of motivation to the academic world and this concept was further studied by Vallerand, Blais, Briere, Pelletier, Senecal, & Vallieres (1992a) in relation to community college students.

Therefore, if the academic motivation of college students can be assessed specifically, according to Lowman (1990) colleges can work with students to enhance motivation for students who find it difficult to compete academically.

## Conceptual Framework

The present study used Deci and Ryan's (1985) model of motivation as its foundation to identify the motivational levels of two distinct groups of students in the community college. This particular conception of motivation, known as self-determination, categorizes people as intrinsically motivated, extrinsically motivated, or amotivated and places these categories along a continuum of development. The internal feelings and gratification that people experience from doing something is labeled as intrinsic motivation, of which the model presents three types: intrinsic motivation to know, intrinsic motivation to accomplish, and intrinsic motivation to experience stimulation. Extrinsic motivation is the external reward or punishment that results from the achievement of some task. Deci and Ryan (1985) defined three categories of external motivation as external regulation, introjection, and identification. Finally, Deci and Ryan (1985) described amotivation as the discernable disconnection between actions and outcomes. Individuals who are amotivated do not consider that a relationship exists between effort and attainment of a reward, but conclude that achievement is something that happens due to luck or natural abilities and thus is not earned through effort.

## Research Questions

The present study used the Deci and Ryan model to ascertain if there is a difference in the motivational levels of community college students who are academically prepared to attend college and those community college students who are academically unprepared to attend college. This study attempted to address the following research question: Is there a difference in the motivational levels of first-time-in-college academically prepared students and first-time-in-college academically unprepared students at the community college? More specifically, the questions this study addressed are:

1. Do academically prepared students report greater intrinsic motivation than academically unprepared students?

2. Do academically prepared students report greater extrinsic motivation than academically unprepared students?
3. Do academically prepared students report less amotivation than academically unprepared students?
4. Is there a relationship between motivational levels and grade point average?

Although these specific questions were addressed, student demographic variables, such as gender and ethnicity, also were taken into account. The impact of gender difference on motivation level has been confounding. Cokley, Bernard, Cunningham, and Motoike (2001) found no significant statistical difference in motivational levels between male and female college students. On the other hand, Vallerand, Blais, Briere, Pelletier, Senecal, and Vallieres (1992a) reported differences in motivation levels of male and female students. Also, Cokley, Bernard, Cunningham, and Motoike (2001) found significant statistical differences between European American students and African American students in motivation levels. Their findings indicated that African American students reported greater extrinsic motivation, more specifically external regulation scores were statistically significantly higher, than European American students. Because this motivational difference in ethnicity has been found in past research, ethnicity was included in the demographic variables included for this study.

Vallerand, Blais, Briere, Pelletier, Senecal, and Vallieres (1993) indicated that intrinsic motivation was positively correlated with grade point average (GPA). Cokley, Bernard, Cunningham, and Motoike (2001) found no evidence to support this and called for further study to discover if any relationship exists between the two variables. This study attempted to establish if a relationship exists between all motivational levels and academic achievement as represented by GPA.

## Overview of the Study

To answer these questions, this study surveyed academically prepared and academically unprepared students using the Academic Motivation Scale (AMS-C; Vallerand, Blais, Briere, Pelletier, Senecal & Vallieres, 1992b) at Gulf Coast Community College in Northwest Florida. The AMS-C was based on Deci and Ryan's (1985) self-determination theory and assesses students' reasons for attending college. Students for the study were grouped according to their preparedness for postsecondary academics

relative to their need for remediation in three subject areas; English, reading, and mathematics. Students in the academically prepared group were those students who received a state-sponsored scholarship that is based upon their past academic performance and their readiness for college-level academic work. These students need no remediation in academics and exhibit college-level proficiencies in the three aforementioned subject areas. The other group of students, those who are academically unprepared, were defined by their below college-level scores on the college placement test and required remediation in at least one of the aforementioned subject areas. To allow for consistency in the student populations being studied, all students in the study were 2003 high school graduates and were attending college for the first time in Fall 2003. Term GPAs were gathered after completion of the Fall 2003 term to study the relationship between students' motivation and academic achievement. Participants' high school GPAs were obtained because of the established relationship that exists between high school GPA and college GPA. This assisted the researcher in controlling for the variable of past academic performance.

## Definition of Key Terms

Several constructs are prevalent in the study of motivation and were included in this study. The following terms are used:

- amotivation - the belief that there is no connection between effort and outcome (Deci & Ryan, 1985)
- academically unprepared students - students who, after taking some form of basic testing in English, mathematics, and reading, score at a level that remands them to take remedial courses in at least one area: English, reading, or mathematics
- academically prepared student - students who have received a state-sponsored scholarship, the Bright Futures scholarship, based upon high school grades, specific high school courses, and standardized test scores

## Significance of the Study

The importance of identifying and comparing motivational levels of academically prepared students and academically unprepared students is to assess how the two groups of students are driven with regard to their college careers. Although Astin (1968) and

Tinto (1987) both found that academic success was related to how involved students were in the college environment, little attention has been paid to what makes students become involved. Others (ACT, 1988; College Board, 1990) have found that high school preparation was related to collegiate academic success. High school grades have been found to be one of the best predictors of college academic performance (College Board, 1990). For most remedial students this would indicate that their attempt to further their education at the postsecondary level would be fruitless. Again, as the case with involvement theory, motivation has not been included in the conception of preparation predicting collegiate academic performance.

Many students come to the community college lacking the preparation necessary to perform at the university level. These students need to develop skills necessary to perform academically at the college level. The key to academic success for these students may lie in the beliefs they have regarding why they attend college or in the beliefs that surround their status as remedial students. Implications from this study could have an impact on the delivery of remedial education. By identifying the motivations of these two groups of students and determining if there is a relationship between motivational level and academic achievement, community colleges could utilize motivation strategies to enhance academic success and support the academic needs of all students.

## Limitations of the Study

One of the first limitations of the proposed study is the generalizability of the conclusions drawn from the results. Participants in the study represent academically prepared and academically unprepared students who were recent high school graduates. This limits the participant pool by not including community college students who have earned a graduate equivalency diploma (GED), students who delayed attending college after high school, and students who have previous college experience. Therefore, generalizations made to the entire academically prepared population and the entire academically unprepared population should be made with caution. Because community colleges have an open-door admission policy, there are many students who come to this level of higher education who are older and perhaps have matured in their self-awareness and motivation. As these students are not included in the scope of this study, we cannot generalize about the motivational levels of these non-traditional-age students.

A delimitation of the present study is that the academically prepared population studied is defined as being recipients of the state-sponsored Florida Bright Futures scholarship. These students were required to meet certain academic criteria to receive the Bright Futures scholarship. Criteria included taking specific college-preparatory courses in high school, receiving a certain score on the ACT or SAT exams, and maintaining a certain high school GPA. In Florida, students who receive Bright Futures scholarship funding are in one of two categories. One category is the Academic Scholarship category where the student must have a 3.25 GPA and the second category is the Medallion Scholarship category where the student must have a 2.75 GPA (Florida Department of Education, 2002a). Receiving the scholarship may play an important role in the motivational level of these students because students must maintain a minimum 2.5 GPA and earn at least 12 semester credit hours per year for their scholarship to be renewed in subsequent years. Although the Bright Futures Scholarship recipients have demonstrated their preparedness for college by meeting the scholarship criteria, not all students who are prepared for college will have received this award. Selecting only Bright Futures Scholarship recipients limits the generalizability of the findings.

Another delimitation of the study is the data gathering procedure, which was different for the two groups. The academically unprepared students were given the questionnaire in the classroom setting while the academically prepared students were given the questionnaire via a postal delivery. The rationale for using these two forms of data collection is warranted because the academically unprepared students were enrolled in remedial courses and could be surveyed as a captive audience. Questionnaires for the academically unprepared student population were distributed by the classroom instructors. On the other hand, academically prepared students have no specific course in which they all are enrolled and therefore are not in a central locale.

## Summary

The impetus for this study was the reported significance of motivation in postsecondary education (Agbor-Baiyee, 1997; Cross, 2001; Elton, 1996; Hamilton, 1996; Hynd, Holschuh, & Nist, 2000; Liping, 2000; Lowman, 1990; Patrick, Hisley, Kempler & College, 2000; Savage, 1998; Tuckman, 1996). The researcher wanted to know if students who are not academically prepared for college-level work upon entry to

college report different motivation levels than those students who are not academically prepared for college-level upon entry to college and whether there was a relationship between motivation and academic achievement as exhibited by term GPA.

There are factors in the academic histories of each of the groups that result in their placement in one group or another that also may affect their motivation. One example of the influence of academic history on students is the possibility that unprepared students may feel defeated because of their placement in remedial courses. This mandated remediation could exacerbate any feelings of inadequacy that remedial students may possess and thus could enhance a belief of disconnect between effort and achievement. Another related limitation is that students who have only one required remedial course to take are grouped with students who must begin their college career with the lowest level remedial courses in all three subject areas: reading, mathematics, and English. Thus there is variation within the unprepared student group.

Historically these two different groups of students have exhibited varying levels of academic success. Academically prepared students at Gulf Coast Community College have reported an average first-semester GPA of 2.4357 while academically unprepared students have reported a 2.2806 GPA for the same grading period (Gulf Coast Community College research, 2001). It must be mentioned that remedial coursework is included in these GPAs and could account for the similarity in attained GPAs. Does motivation have an impact on academic achievement? The following study attempted to gauge the impact, if any, of motivation on academic achievement.

# CHAPTER 2

# LITERATURE REVIEW

This study is designed to compare the differences in motivational levels between community college students who are academically prepared and those who are academically unprepared. The study drew on motivation research and its application to the academic setting of a community college. To explore the theoretical concept of motivation, this chapter details different motivational theories beginning with the mechanistic approach of drive theory, the cognitive approaches of achievement theory and attribution theory, and finally the organismic approach of Deci and Ryan's self-determination theory. Discussion centers on the academically prepared population and the academically unprepared population in the community college. The discussion also focuses on motivation in the community college population and the importance it plays in student success. Other literature examined explores the mission and structure of the community college and its students.

## Theories of Motivation

McTeer (1972) defined motivation as "the active, integrated, and directed behaviors of the organism" (p. 12). Motivation, thus, is the variable that propels us to exhibit certain behaviors or to act in certain ways. Over the years, many different theories of motivation have evolved to explain human behavior. Theories have developed from those derived from a mechanistic view of motivation to those from a cognitive base (Weiner, 1972). Early motivation theories sought to explain behavior in terms of reactions or responses that compared human behavior to those organisms with simpler, less complex thought processes. As motivational thought progressed, theorists began to include the role that cognition played in determining why people exhibit specific

behaviors. As for assessing motivation and its impact on academic achievement, this literature review will present several motivation theories and develop the rationale for the use of self-determination theory as a basis to compare two groups of college students. Four theories are discussed below in an attempt to describe the development of motivation theory and its present application to college students' academic success.

Drive Theory. One of the earliest explanations of why people do things is found in Clark Hull's drive theory of motivation. Drive theory states that a drive is the result of the need for an organism, in this case, human organisms, to return to a state of homeostasis (Evans, 1975; Weiner, 1972). In other words, humans are spurred on to fulfill some missing component that would reestablish internal equilibrium. Some familiar drives are: hunger, thirst, or sex. Each motivates or propels a person to satisfy the need that is present. Hull related all drive to physiological needs such as food, water, oxygen, and a livable temperature. Hull's theory explained that organisms learn what to do to satisfy this need to maintain equilibrium thus ensuring that the resultant behavior would be demonstrated on subsequent instances when the homeostatic condition was not present (Evans, 1975).

Behaviorism was a popular school of psychological thought originating in the early 1900s. This psychological school of thought argued that observable exhibitions of behavior were a result of something learned from a past experience (Kalat, 1993). Behaviorists such as James Watson, B.F. Skinner, and Clark Hull stated that most behavior could be programmed by a system of rewarding desired behavior or close approximations of the desired behavior thus assuring that the specific behavior would continue (Kalat, 1993). This school of thought based its observations on animal behavior, which, behaviorists believed, was similar to human behavior because all organisms' learning was based upon experience (Kalat, 1993). Early researchers conducted experiments to assess the strength of biological drives. Following 12-72 hours of food deprivation, animals were assessed on their willingness to cross an electric grid to obtain food on the other side (Weiner, 1972). These researchers ascribed to the behaviorist school of psychological thought and were primarily concerned with respondent behavior that could be observed through empirical study (Evans, 1975; Weiner, 1972).

According to Weiner (1972), Hull's theory was based upon his idea that organisms only learn something that has been reinforced within a short time after a specific behavior has been exhibited. Drive theory explained the importance of the strength of the reinforcer and the importance of temporal proximity to learning strength. Weiner (1972) also noted Hull's belief that organisms exhibited certain behaviors contingent on a neutral reinforcer that did not physiologically reduce the drive or need (Weiner, 1972). This concept, known as a secondary reinforcer, indicated that responses could be elicited by a neutral stimulus when the physiological need was not met but that the neutral stimulus itself provided reinforcement because of its association with the primary reinforcer. Weiner (1972) argued that the "drive provides the motor that energizes or activates behavior" (p. 28). Secondary drives, similar to secondary reinforcers, are stimuli that do not reduce physiological needs but energize behavior. Secondary drives, such as fear, are learned behaviors (Evans, 1975; Weiner, 1972). Acquired fear, according to drive theory, constitutes a drive because of its ability to activate behavior and the behavior of the organism to flee to safety, which is the essence of drive reduction. Therefore, the organism is led to a state of homeostasis and this accounts for motivation.

Drive theory's application to education assumes that students perceive a need for intellectual stimulation and that students fulfill this need by pursuing education. Covington (2002) stated that drive theory applied to education must use a wider definition of a drive to include the need for accomplishment, control, and acceptance. The problem with drive theory in this context is that students set their goals high but perhaps not realistically because they may not realize the effort that must accompany these lofty goals. According to McClelland (1961) drive theory applied to education is the identification of drives as goals. Academic motivation, in McClelland's view was the tenuous balance of exerting effort to reach goals and the fear of not reaching those goals. Covington stated that emotional states due to this conflict indicated an individual's attitude toward learning; some people are eager to learn while others are averse to putting forth the effort to learn. Although the principles of drive theory may have been used in education, is there an actual drive to succeed academically? Education appears not to hold the physiological need to establish homeostasis that is the foundation of drive

theory. This theory fails to account for individual choice, thought, or interest that people possess.

Achievement Motivation Theory. Where drive theory was concerned with the idea of respondent behavior, its mechanistic approach inadequately dealt with thought processes that might affect behavior. It is this lack of reliance on cognition that spurred researchers to attempt to answer questions that were left by Hull's drive theory (Weiner, 1972). Questions such as individual choice, individual differences, and experience were not addressed well by Hull's drive theory of motivation. Theorists began to exhibit interest in individual differences and that people possessed markedly different personalities, so they searched for a motivational theory that encompassed these differences. One such cognitive theory of motivation is that of achievement motivation. The basis of achievement motivation theory is traced to McClelland, Atkinson, Clark and Lowell's 1958 research that uncovered an individual's need for achievement (Evans, 1975; Fyans, 1978; Weiner, 1972). This cognitive explanation of motivation embraced the idea of personality (Weiner, 1972) and individual differences (Evans, 1975; Weiner, 1972) in its search for understanding why people behave in certain ways.

Achievement motivation theory measures a person's propensity toward achievement by assessments such as the Thematic Apperception Test (TAT) (Weiner, 1972). The TAT is a subjective assessment that presents a photograph or artist's rendering of a particular scene or scenario. The person taking the test must write a narrative that explains the dilemma of the scene, the events that led up to the scene, and what will occur in a potential subsequent scene. According to Weiner (1972), a researcher scores the narrative by assessing the references to subcategories such as need, positive affect, and impediments that the subject makes in accordance to the presented scene. From this an analysis score of achievement motivation is revealed that indicates the person's drive or dedication to achieve (Weiner, 1972).

Achievement motivation theory, which originally began to explain why some people accomplish things and take pride in accomplishments, was expanded to include the rationale that some people are motivated because of a fear of failing (Weiner, 1972). According to Weiner (1972), this fear of failure concept worked well with the concept of striving to accomplish something because it explained why some individuals attempt to

accomplish things that may be above their skill level, why still others attempt to accomplish things a great deal below their skill level, and why others attempt to accomplish only things that might be considered difficult but are within their skill level.

According to Evans (1975), this fear of failure aspect came from Atkinson who noticed that achievement theory was based upon expectancy. In other words, Atkinson offered that people are motivated by what they expect to be the outcome of an action. According to Atkinson and Raynor (1978), if there is no expectation of any pride in an accomplishment, there is no reason to produce behavior that could result in the accomplishment of a specific task.

It is evident that according to achievement motivation theory people may experience both the desire to accomplish and the fear of failure simultaneously. Weiner (1972) described this combination of motives as an equation in which one motive, either the motive to accomplish or the fear of failure, is greater than the other. This propels the person to action in a particular way. According to Weiner (1972), if the fear of failure is greater than the motive to accomplish, the resulting achievement motivation is low. The converse equation, if the motive to accomplish or the need for achievement is greater than the fear of failure, will result in high achievement motivation that will propel people to push themselves to overcome any obstacle to accomplish something (Weiner, 1972).

The addition of personality and cognition as a theory of motivation brought a new perspective on studying why people exhibit specific behaviors. Although this addition included experience and personality, it did not include the aspect of reward that was prevalent in the behaviorist theory. In that respect the theory is one dimensional in its approach to behavior. For use in an educational setting, achievement theory does not take into account the idea that some students are motivated by making certain grades and not by risk-taking behavior that may result in failure. Some students may not fear failure and thus continue to exhibit behavior that produces failure. These students are not motivated by any achievement they may experience.

Attribution Theory. While drive theory and achievement theory describe what propels people to act in particular ways, attribution theory addresses where the motivation actually occurs (Weiner, 1972). In his attribution theory, Weiner (1986) explained that people credit their actions to some force that directs their actions. The

origin of these actions was described as either being internal or external, stable or unstable, and controllable or uncontrollable. According to Weiner (1986), it is important to remember that the attributions are individuals' perceived locus of causalities i.e., what they believe to be pushing or pulling them to an action.

According to Fyans (1980), attribution theory is an individual's explanation of what controlled or directed specific circumstances. People may attribute failure to lack of ability, lack of effort, or task difficulty. Depending upon a subjects' perception of a controlling force, researchers saw marked differences in their individual performance levels (Fyans, 1980). For instance, Fyans (1980) reported that people who attribute their success or failure to proficiency, or lack thereof, demonstrated a greater propensity for effort than those who attributed their success or failure to external, non-controllable factors. This finding is contrary to what Dweck (2000) found with relation to learned helplessness. Dweck (2000) reported that students who attribute failure to low ability begin to fall into a spiraling pattern that leads the student to learn that his ability is non-changeable and, therefore, lessens his efforts to achieve.

Whereas drive theory and achievement theory both state what moves someone to behave in certain ways, attribution theory deals with the individual's perception of what controls behavior and attributes actions to whatever these perceptions reveal (Weiner, 1972). Weiner (1972) went on to explain that attribution theory could be defined as the perceived interaction between man and the environment. He also noted that attribution theory concerns "perceived causes of behavior, and not [to] the determinants of force actually acting upon the person or influencing an outcome" (Weiner, 1972, p. 314).

Although attribution theory explains motivation through the individual's perspective of the locus of causality, it does this in an either or fashion. In other words, attribution theory explains that a person either attributes his behavior to external forces or internal forces and there is no middle position, only a dichotomy. It is difficult to believe that individuals are either directed solely internally or externally and that some combination is not at work influencing behavior. Is it realistic to believe that students believe that everything connected with their academics to be outside of their control? Although students' perceptions of what is controlling their behavior is important in assessing motivation, if defined dichotomously it is limited in its depth of identifying

motivation for academic success. This limitation includes the dimension of students not being motivated at all.

Self-Determination Theory. Mechanistic and cognitive theories of motivation center on either drives or decisions and thoughts that are within the individual. Although these approaches have validity, both ignore volition or interest in the exhibited behavior (Deci & Ryan, 1985). Weiner's (1972) attribution theory explored the aspects of a locus of causality for motivation. This internal versus external causality brought forth a new dimension for behavior that was missing in the behaviorist approach; the idea of pursuing something because a person feels pleasure from performing the task (Weiner, 1972). This new dimension brought forth a dichotomous model of motivation that absorbed the reward of a mechanistic approach and the internal thought process of the cognitive approach. Deci and Ryan's (1985) self-determination theory posed that motivation is a continuum with amotivation on one pole and intrinsic motivation on the other.

Self-determination indicates that a person's perception of control is an integral part of motivation but it is most important to understand the ramifications of choice in this theory. With this element of choice in motivation theory, people are left to chose how they interact with their surroundings. Deci and Ryan (1985) explained that this discourse with the environment is a person's choice. To engage or disengage with one's surroundings or to exercise control over the elements of the environment indicate the individual's desire to be involved in outcomes of behavior. Deci and Ryan (1985) noted that self-determination is an informed choice "based on an awareness of one's organismic needs and a flexible interpretation of external events" (p. 38). With this aspect of choice, Deci and Ryan (1985) explained that behavior was not based simply on a choice of one thing over another, but a choice that could be plotted along a continuum. Thus, Deci and Ryan's self-determination theory encompasses a more complex model of motivation that includes a choice among many options.

The continuum Deci and Ryan (1985) explored in their self-determination theory reveals degrees of intrinsic and extrinsic motivation, and also presents another dimension they termed as amotivation. Self-determination theory describes intrinsic motivation to fulfill specific needs within the person. Amotivation is described as the perceived disconnect between effort and outcome. It is amotivation that is missing in Weiner's

dichotomous attribution theory. The inclusion of amotivation completes the motivation continuum and gives an added concept to motivation: the concept that an individual perceives no rationale, neither internal nor external, to engage in purposeful behavior (Deci & Ryan, 1985).

Much of the literature (Agbor-Baiyee, 1997; Cokley, Bernard, Cunningham & Motoike, 2001; Hamilton, 1996; Liping, 2000; Lowman, 1990, Miller, DeBacker & Green, 1999; Patrick, Hisley, Kempler & College, 2000; Savage, 1998; Tuckman, 1996) pertaining to motivation described it in terms of locus, either intrinsic (internal) or extrinsic (external) or amotivated (Deci & Ryan, 1985; Vallerand, Blais, Briere, Pelltier, Senecal, & Vallieres, 1993). Deci and Ryan (1985) and Vallerand, et al., (1993) described amotivated students as those students who do not recognize a connection between their efforts and achievement of some goal. Deci and Ryan (1985) also expanded the ideas of intrinsic and extrinsic motivation to include specific outcomes for these components of motivation. The specific desires of people who are intrinsically motivated are intrinsic motivation to know, to accomplish, and to experience stimulation. According to Deci and Ryan (1985), specific desires for extrinsically motivated people are to have some outside entity regulate their behaviors, introjection or internalization of external demands thus making the behavior itself valued, and identification whereby the person accepts the responsibility of behavior that produces a specific valued outcome.

Deci and Ryan (1985) and Vallerand, et al. (1993) explained motivation as an issue of locus of causality. This locus of causality indicates what influences people to do things. Internal locus of causality is explained as intrinsic motivation and external locus of causality is explained as extrinsic motivation. Specific motivations allow researchers to quantify the specific type of motivation or specific desire that drives an individual within the intrinsic or extrinsic classifications of motivation. For instance, both Deci and Ryan (1985) and Vallerand, et al. (1993) detail the motivation to know and the motivation to accomplish something as components of internal motivation.

Deci and Ryan (1985) stated that their theory of self-determination sprang from their studies of environmental forces upon intrinsic motivation. The roots of self-determination theory are in their studies of the relationship between intrinsic motivation and rewards. These studies involved college students participating in puzzle-solving

projects that consisted of highly intrinsically satisfying tasks. Two groups of students, an experimental group and control group, worked on the puzzles in three 1-hour sessions. Students in the experimental group received $1.00 per puzzle solved during the second session while the students in the control group received no reward other than the satisfaction of completing the puzzles. Following the first session, the researcher assessed both groups' intrinsic motivation and then again following the third session. A comparison of the intrinsic motivation levels revealed that intrinsic motivation for both groups was similar following the first session. Motivation levels following the third session resulted in a significant difference between groups. Students in the experimental group showed less intrinsic motivation than those in the control group. The researcher concluded that intrinsic motivation decreases when an extrinsic reward is associated with completion of a task that was originally intrinsically motivating (Deci & Ryan, 1985).

Further study in this realm also used college students. A 16-week field experiment was conducted with students who wrote headlines for the college newspaper. Again, students were grouped in experimental and control groups where the experimental group would receive an extrinsic reward for completing a task while the control group did not receive an extrinsic award. During the first four weeks of the experiment the researcher established a baseline of intrinsic motivation with both groups of headline writers who received no rewards. In the fifth, sixth, and seventh week of the experiment students in the experimental group received $.50 per headline they wrote and the control group received nothing. The researcher assessed intrinsic motivation during the eighth, ninth, and tenth weeks and then again during the fifteenth and sixteenth weeks. Students in the experimental groups reported a significant decrease in intrinsic motivation in the eighth, ninth, and tenth weeks of the study. They continued to show lower levels of intrinsic motivation during the final two weeks of the study than their original baseline and lower intrinsic motivation than students in the control group. Deci and Ryan (1985) concluded that extrinsic rewards decrease intrinsic motivation.

Deci and Ryan (1985) also conducted research to see if intrinsic motivation can be elicited. Students were divided into experimental and control groups and given puzzles to solve. Students in the control group received no feedback regarding their progress on the puzzle-solving exercises while students in the experimental group received

affirmational feedback from the researcher. Intrinsic motivation was found to be higher among the students who received the positive feedback (Deci & Ryan, 1985). According to Deci and Ryan (1985) it is important to keep in mind that all of these behaviors are self-determined, in other words, individuals make the choice to participate in tasks based upon their resolve to engage in them. Deci and Ryan stated that one of the keys to self-determination is the flexibility a person believes himself to possess with regard to participation in events.

In applying these concepts to the educational setting, Deci and Ryan (1985) recognize the importance of intrinsic and extrinsic motivation in education. Deci and Ryan (1985) reported that two groups of college students were given an article about neurophysiology and had three hours to learn the material. One group was told that they would be tested on the material at a later date and the other group of students was told that they would be required to teach the material to other students. Following the study time, students were asked to complete a questionnaire to assess their attitudes about the experience. Students in the group who were told they were to teach the material to others reported greater interest and were more active in the learning process than those in the group who were told they would be tested on the material at a later date. Students in this experiment also were given an exam to evaluate their mastery of the material. Students in the teaching group reported greater scores on the conceptual learning portion of the test than students in the group that was told they would be tested on the material. Both groups' scores on the second portion of the test, rote memorization, were similar (Deci & Ryan, 1985).

Deci and Ryan (1985) contended that students will report varying levels of motivation for educational pursuit and that extrinsic regulation can be internalized by students and thus the locus of causality can change. According to Deci and Ryan, students will inevitably be required to learn material that is not inherently interesting to them. This fact establishes the need for external regulation of some type and their research concluded that this external regulation must be internalized by students to move the students toward more intrinsic motivation that is indicative of greater conceptual learning outcomes (Deci & Ryan, 1985). Self-determination theory applied in educational

settings could then reasonably be associated with the depth of understanding students exhibit in courses, which could be indicative of academic achievement.

## Motivation in College Students

In relation to educational pursuits, McMillan and Forsyth (1991) defined motivation in education as the "purposeful engagement in classroom tasks and study to master concepts or skills" (p. 39). The major points of this definition are purposeful engagement and mastery. Purposeful engagement denotes a reason, intention, resolve, or rationale for thoughtful participation in some endeavor. This cognitive process calls for the student to pursue some objective that can be attained through mastery of specific goals. Mastery refers to the integral knowledge necessary to become competent in a specific discipline (Mukherjee, 2000). In education this competence is measured by assessment tools that provide an indication of the learning that has taken place (Mukherjee, 2000). Thus, motivation, from an educational perspective includes a purpose, a commitment, and a goal of some type.

Cross (2001) explained that motivation is dependant upon two components: value and expectancy. She noted that for a student to be motivated, the student must first find value in learning, or value in a particular course he or she is taking, or value in what the student is seeking to gain from the college, e.g., a college degree or a specific skill. This factor was reported by Cross (2001), Dweck (2000), and Miller, DeBacker & Green (1999) and described the idea of value of students' academics in relation to their success. For instance, if a student thinks that a certain college degree is important, he or she values the degree and thus possesses one component necessary for academic motivation. Students must value something associated with their college curriculum to actually propel them into taking the risks associated with the pursuit of academic success (Cross, 2001). According to Dweck, (2000) students she described as believing their intelligence was fixed were more concerned about their achievement and less concerned about actually learning than those students who believed that their intelligence was malleable. This aspect confirms Cross' (2001) idea of value as an important component of motivation.

Cross' (2001) second component, expectancy, refers to the belief the student holds of what he or she thinks is attainable. An example is a student who believes that he or she has the ability to obtain a college degree. In believing in the ability to succeed, the

second component has been met. Cross (2001) noted that for students to be successful, they must be able to believe that they can succeed. However, many students at the community college have doubts about their abilities and had rather be seen as expending little or no effort and not succeeding than expending great effort and not succeeding (Cross, 2001). The latter affirms the self-perception that they have a diminished capacity for learning or low ability to learn (Dweck, 2000). It is apparently more acceptable for the students to put forth no effort and use that as an excuse for failure than to put forth effort and risk failure that could be attributed to lack of ability. Cross (2001) explained that these factors contribute to the expectations that students harbor about their potential to succeed in college. Although these components are integral in studying motivation, they can be difficult to assess.

Just as motivation has been studied according to different theories, it has also been studied by targeting a wide array of groups. Many studies assessing motivation have focused on specific groups of students. Snyder (1996) compared motivation levels of student athletes; Hamilton (1996) studied motivation among African American female college students; Liping (2000) studied motivation among female college students; and Donohue and Wong (1997) compared motivation levels of traditional and nontraditional college students; Bembenutty (1999) examined the effect of delay of gratification on motivation in college students. These studies were conducted on four-year campuses where student populations tend to be more homogeneous in academic skill levels and most are committed to full-time academic and campus life. However, little research has examined motivation of community college students where a large number of students enter college with below college-level skills. It is this void in the research literature that the present study will attempt to fill using the following question: Is there a difference in the motivational levels of academically prepared students and academically unprepared students at the community college?

Many academically unprepared students have had little experience with success. As a result, they also have a sense of learned helplessness (Cross, 2001; Marks, 1998). This attitude then translates to a student with low expectations who expends little effort toward academic success. Strage (2000) and Dweck (2000) categorized students as being either mastery oriented or learning helpless students and found little difference in the

grade point average (GPA) of these two types of students. Both researchers described mastery oriented students as those who exhibited interest in the subject matter studied and attempted the subject matter without a fear of failing. Those students described as learning helpless students exhibited little risk-taking behavior and attributed their success to their innate abilities (Dweck, 2000; Strage, 2000). According to Dweck (2000) and Strage (2000) although the difference in GPA as reported was small, the students who were described as learning helpless experienced a tremendous fear of failure while the mastery oriented students enjoyed the challenge of their schoolwork.

Dweck (2000) also noted that this achievement similarity lasted until the learning helpless students experienced failure thus indicating that academic achievement may differ among motivational levels as scholastic difficulty increases. Initial failure in the learning helpless students, according to Dweck (2000) was the cathartic event that started students on the road to exhibit self-defeating learning strategies such as expending little or no effort. This finding is consistent with Cross' (2001) explanation that students would rather associate their low achievement or failure with a lack of effort instead of expending effort and risking failure. Apparently this failure would then indicate a true lack of inherent ability. Thus these students expend little effort to succeed in their coursework. Dweck (2000) explained that the rationale for this lack of effort is associated with the student's self-theory of intelligence. Dweck (2000) categorized self-theories of intelligence as either entity theory, where intelligence is seen as fixed and unchangeable, e.g., "I can't do it because I am not very smart," resulting in low effort, helplessness, and performance-goal oriented students, or incremental theory, where intelligence is seen as changeable and fluid resulting in effort, mastery oriented, and learning-goal oriented students, e.g., "I know that I will eventually be successful."

Cross (2001) explained the importance of the student's perceived value of his or her education, courses, grades, and goals as relating to academic success. If students attach no value to their education, little effort is expended. Dweck (2000) expanded the idea of effort to include that effort itself must also be valued. Students who held an entity self-theory of intelligence did not value or expend effort even when they desired to achieve. Even more interesting is the fact that students who held this entity self-theory of

intelligence equated effort to low intelligence because it signified that the individual did not have a natural ability to perform at a high level (Dweck, 2000).

Researchers who support the entity theory believe that individuals who are academically successful are successful because academics come easily for them. In this belief, these entity theorists do not take into account the difficulty of the task or course work an individual is attempting. They believe that the difficulty of the task is irrelevant and if someone must work hard to achieve something, the person is not intelligent. In other words, entity theorists believe that success has nothing to do with effort but everything to do with natural, innate ability. The concept of learned helplessness that is presented by these researchers (Cross, 2001; Dweck, 2000; Marks, 1998; Strage, 2000) is similar to Deci and Ryan's (1985) concept of amotivation. Students who are amotivated perceive that any effort on their part has no relation to an outcome thus they may be more prone to exhibiting self-defeating behaviors (Cross, 2001; Deci & Ryan, 1985; Dweck, 2000).

Cross (2001) noted that value and expectation must ultimately come from within the student, signaling the importance of intrinsic motivation. However, institutions play an enormous role in increasing students' enthusiasm to pursue learning and encouraging students to expend the effort necessary to succeed. Page and Mukherjee (2000) wrote that the most important outcome of a college education is student performance. They implored higher education to do whatever is necessary to create an environment that promotes a high level of student performance. While this institutional stance is of immense importance, it is also important for the institution to encourage students to exceed the criteria necessary for simply passing a course. Students must be able to see the relationship between their courses and their goals to be committed to the effort necessary to achieve (Liping, 2000).

Because there are differences in community college students' levels of preparedness, it is necessary for community colleges to continue to offer a means to success for all students who seek postsecondary education. Community colleges must offer challenging courses for all students, including remediation for those who initially lack the skills necessary for college-level study. However, the question remains: Why are some students academically successful and others are not?

Rendon and Mathews (1994) and Cross (2001) noted that administrators and faculty believe that the most important factor associated with student success is motivation. Do students who are academically prepared have different levels of motivation from students who are academically unprepared? If motivation accounts for individual differences in academic success, it may be possible that motivation accounts for differences among groups who exhibit different levels of preparedness. Students who arrive at the community college highly motivated, either internally or externally, should be those who succeed irrespective of their levels of preparedness. But, do those students who begin their postsecondary careers academically unprepared exhibit motivational levels more consistent with learned helplessness than those who are academically prepared?

## Academic Preparation

High schools across the nation prepare young people to enter the workforce and/or to enter higher education. In order for young people to enter higher education, they must have graduated from high school or have obtained a graduate equivalency diploma (GED). Although these minimum requirements allow a person entrance to an open access community college, universities generally require more stringent entrance requirements and accept only those students who can prove that they are at the college-level academically. Because many of the studies of academic motivation of college students ave taken place on university campuses, there is little room for comparison of academically prepared and academically unprepared students. First, these two groups of students must be identified according to their preparation or lack of preparation for college work.

Academically Prepared Students. According to the most recent data from The National Center for Education Statistics (NCES) fall 2000, 61% of college students enter 2-year colleges with college-level skills in reading, mathematics, and English (NCES, 2004). These students have taken some type of testing that assesses the student to be prepared to study at a level necessary for success in college. Academic preparedness indicates that these students need no remediation in academic areas and are thus able to enroll in at least the first level of college courses, e.g., algebra and freshman English composition. These students, after proving their academic readiness by achieving an

acceptable score on the ACT, SAT, or college placement test, are expected to perform at the college-level, meaning that they possess the skills in the areas of English, mathematics, and reading that students can build their education upon.

Academically Unprepared Students. Remedial courses, developmental studies, college-preparatory classes, and compensatory education are all descriptors of courses for students who enter college lacking the skills necessary to perform at the college level. Raymond C. Bowen, president of LaGuardia Community College, stated that "the fact that our incoming students are not prepared for college is not an indictment of our institutions. We want to be measured not by the skills level of incoming students, but by that of our outgoing students, graduates and transfers" (1999, p. 48). Bowen's statement resonates with one of the fundamental missions of the community college, the mission of remedial education. In other words, unprepared students are accepted for postsecondary education and are given the remediation, development, and opportunity to pursue any type of education they desire.

From an historical standpoint, remedial programs in the United States can be traced back as far as 1639 at Harvard College (Muse, 1999) when few young men were adequately prepared for the scholarly endeavors of college. According to Markus and Zeitlin (1998), the Morrill Act opened postsecondary education for many who were unprepared to pursue higher education. Iowa State University offered entrance tests in mathematics and English and students who did not meet entrance scores on these exams and were remanded to take preparatory courses in these areas. By the early 1900s colleges and universities had begun to recognize the lack of preparation of their students and began implementing formal remedial programs. Another program for remedial or developmental studies was a reading laboratory that was begun in 1936 at New York University. Harvard instituted a program to remediate reading skills for unprepared students in 1938 (Markus & Zeitlin, 1998). These and other early programs provided the foundation for today's remedial or developmental programs on college campuses across the nation. Mills (1998) advanced the historical perspective by stating that "remediation in higher education has a proud tradition" (p. 673) and noted that remedial education "makes it possible for institutions to admit and retain a substantial number of students who otherwise would not likely enter and be successful at the collegiate level" (p. 674).

The U.S. Department of Education has defined any "courses in reading, writing, or mathematics for college students lacking those skills necessary to perform college-level work at the level required by the institution" (Lazarick, 1997, p. 12) as remedial education courses. The most recently published NCES (2004) data collected during the Fall 1995 session from colleges across the nation concerning individual remediation found that (a) 29% of all freshmen took at least one remedial course and (b) enrollment percentages in remedial courses had remained constant over the past five years. According to Guernsey (1996) the NCES statistics show a drop in the "proportion of institutions that offer remedial courses" (p. 7) from 82% to 78%. Also noted in the 1995 NCES survey is a greater percentage of institutions whose enrollment is over one half minority offered more remedial courses than their counterparts (NCES, 2004). The statistic indicates that colleges may have a diminishing interest in educating under-prepared students. The most recent NCES (2004) data found that during the 2002-2003 academic year (a) 79.5% of all postsecondary institutions offered at least one remedial course in either reading, writing, or mathematics; (b) 91% of all public postsecondary institutions offered remedial education; and (c) 99.4% of all public 2-year institutions offered remedial education.

Absent in the statistic is the average age of students who take remedial courses and their reason for attending college. Because some states remand remedial education to the community college and community colleges report large numbers of adult students in their population, it is reasonable to believe that adult students are enrolling in remedial courses. Cohen and Brawer (2003) stated that 60% of those students who began their college careers at age 30 or older, began those college careers at the community college. One of the cornerstones of the community college is an open admission policy that allows students the opportunity to pursue postsecondary education with a Graduate Equivalency Degree (GED). These students may have quit secondary school several years earlier and return to school to improve their economic or employment status. Although these adult students enter college after an absence from any type of formal education for several years, they may have gained life experience and maturity that enhances their academic effort.

The NCES statistics have quite simply reinforced what colleges have been reporting for years: Many students who are attempting to pursue the erudite work of higher education are not prepared for it. Cohen and Brawer (2003) found a drop in academic achievement among high school seniors during the 1970s and also a lowering of academic requirements of schools of all levels. These academically unprepared students, whether adult returning students, recent high school graduates who were not serious students, students who attended poor secondary schools, or non-native speakers of the English language, are pursuing higher education as a means to better educate themselves. Rather than a problem, this is an opportunity for 2-year colleges to prove their viability as learning institutions.

Student Success. The Florida Office of Program Policy Analysis and Government Accountability's (OPPAGA) (1999) most recently published data reported that the state's community colleges serve more than 750,000 students per academic year. The 1999 OPPAGA program evaluation report revealed that 66% of the state's first-time-in-college students who enrolled in degree programs at the 28 public community colleges depart without earning a community college degree or certification. The state legislature found this attrition rate unacceptable and called upon the state community college system to improve student graduation and retention rates (OPPAGA, 1999). Therefore, keeping current students enrolled and educating them is as important as recruiting new students and can counter rising costs of recruiting new students, assist in keeping enrollments from plummeting, and decrease financial aid expenditures due to students who fail to complete their degrees (Wyman, 1997).

Although there are many studies about student retention and student success, the majority of these studies has centered on 4-year institutions. Most use Tinto's theory of academic and social integration of students (Gates & Creamer, 1984). Tinto's (1987) theory stated that student success and retention are related to the degree to which the student is integrated socially and academically into the educational institution. In other words, the more interactions a student has on campus, the more likely the student will be successful and remain enrolled.

Astin's (1968) involvement theory that endorses the importance of participation in college activities has proved to be applicable to 4-year institutions. Both theories

highlight the role of the student experience and its relation to student success, student satisfaction and, ultimately, student persistence. Baillie and Fitzgerald (2000) stated that many colleges view student retention to be a major goal of the institution. They contend that this attitude only informs the institution which students not to recruit thus ensuring greater success and retention rates of those students who have a good chance of succeeding. In doing this, colleges are not actually being responsive to their students' needs but are blaming the student for departing the institution instead of finding out why students depart.

## The American Community College

As noted earlier, the purpose of this study was to ascertain if there were differences in academically prepared and academically unprepared students' motivations for attending college. Because the study included students who were not prepared to attend a university, the community college lent itself as the ideal institution to study. Cohen and Brawer (2003) identify a community college as a postsecondary institution that offers no degree higher than the Associate in Arts or Associate in Science. In the 1960s, the community college in America emerged as a vehicle for the public to attend postsecondary education (Diener, 1994). In his article detailing the emergence of the community college in America, Diener (1994) identified several functions of the community college. Among these functions are offering (a) a general education program, (b) a university transfer program, (c) a vocational training program, (d) a student support or guidance program, and (e) a remedial education program. Cohen and Brawer (2003) identified (a) academic transfer, (b) vocational education, (c) continuing education, (d) community service and (e) remedial education as the five missions of the community college. Thus it is evident that remedial education is an accepted function of the community college.

Historically, the community college has opened its doors to the masses and has offered to those whom the university found otherwise unsuitable an opportunity to pursue postsecondary education. The fact that the community college embraces remedial or developmental education as a mission endorses the value of educating those unprepared to pursue postsecondary education. This mission makes higher education possible for students who have been low-achievers in high school, attended poor high schools or who

had not gained competencies for college-level academics, or delayed entrance into postsecondary education following a lapse of time away from formal education (Cohen & Brawer, 2003).

Community colleges enroll over 55% of the total higher education population and because these students tend to be older and are more likely to attend college part-time, they are also less likely to spend spare time on campus in social activities (Voorhees, 1987). Bean and Metzner (1985) encouraged a shift from Tinto (1987) and Astin (1968) when studying academic success and retention rates among nontraditional students. Their suggestion was to disassociate the variable of institutional social integration from the models because commuter students and nontraditional students are less likely than traditional age residential students to participate in campus socialization activities. Instead, they suggested that community colleges and commuter colleges use academic integration, i.e., amount of contact between student and campus personnel focusing on the student's academics, as the variable to study these institutions (Bean & Metzner, 1987; Grosset, 1991; Voorhees, 1987). Strage (2000) found when students feel comfortable with their interactions with their professors and peers, they exhibit an increase in the degree of their success and become adjusted to college with greater ease than those who do not participate in such interactions.

The community college in Florida. Florida community colleges serve as the postsecondary institutions responsible for remediation. The first Florida community college was founded in 1933 in Palm Beach (Wattenbarger, 1953). Although Palm Beach Junior College was one of a few community colleges in the early 1940s, in 1947 the state legislature mandated that a system of community colleges be a part of the Minimum Foundation Program. Wattenbarger (1953) proposed a system of community colleges throughout the state whereby a county with a population of 50,000 or more would be granted the authority to form a 2-year college governed by a county board. This proposal went on to provide the basis for two or more counties with a combined population of at least 50,000 people to build a local community college to serve the counties represented (Wattenbarger, 1953). Although this plan for community colleges in Florida provided for local control of the community colleges, it continued to call for the segregation of education by establishing these community colleges as all White institutions and calling

for the establishment of a few Negro community colleges where the population could support the separate but equal philosophy of the time (Wattenbarger, 1953).

Since this original inception of a community college system in Florida, 28 community colleges have been built to serve Florida's population. The establishment of the locales of the community colleges in Florida provided the population ready access to postsecondary education. Wattenbarger's (1953) proposal was also based upon high school enrollment numbers that did not take into account the future of an adult population in the community college. The 2002 Florida Statutes state that the mission of community colleges includes offering technical or vocational degrees necessary for the changing workforce needs. This mission coupled with a sluggish economy may trigger a greater influx of adult students in the community college population. The 2002 Florida Statutes also require that community colleges shoulder the responsibility for remedial education in the state. These two mandates would indicate that the community college should expect a large academically unprepared student population.

## Community College Students

American College Population. According to Adelman (1994), American community college students tend to be more concerned about acquiring skills necessary for career advancement or pursuing their general education requirements for transfer than about pursuing advanced professional credentials. These students, according to Adelman (1994), pursue a basic survey of knowledge in their subject matter and are not seeking the in-depth mastery of subject material. Cohen and Brawer (2003) reported that the community college student population was not only increasing in number but that it was also increasing in median age. Cohen and Brawer (2003) also reported that these students were taking fewer credit hours per semester because they were working more hours while pursuing their education. Researchers also found that the numbers of women and minorities pursuing a community college education continues to grow (Cohen & Brawer, 2003).

Community college students tend to be unprepared to pursue postsecondary education (Zeitlin, & Markus, 1996). Cohen and Brawer (2003) reported that average ACT scores for students who aspired to attain a 2-year degree was 3.6 points lower than students who aspired to attain a 4-year degree. These academically unprepared students

attend community colleges because the 2-year college open door policy allows these students the egalitarian opportunity to pursue postsecondary education. Cohen and Brawer (2003) also found that the majority of community college students attend this form of postsecondary education to enhance their financial standing instead of pursuing an education to expand their knowledge base.

Florida College Population. According to the Projected Florida High School Graduates 2003-2004 through 2020-2021, (Florida Department of Education, 2004a), the number of high school graduates in the state of Florida is expected to increase 32% by the year 2021. The state awards four types of high school diplomas: the standard diploma, the special diploma, the standard certificate of completion, and the special certificate of completion. The reported projection increase includes a drop in the percentage of standard diplomas issued. This projection stated that the percentage of standard diplomas awarded will drop from its 2002-03 actual 90.7% to a projected 87.1% (Florida Department of Education, 2004a). It is reasonable to expect that community college attendance will continue to attract these graduates at a rate comparable to the 57% of those who enrolled in higher education in 2000 (Florida Department of Education, 2002b). According to this report, the percentage of Florida high school graduates who pursue some type of higher education has risen 10% in the decade from 1991 – 2002. Florida community colleges enroll on average over 11,000 students per college, which is twice the national average for community college enrollment (NCES, 2003). According to the Florida Department of Education (2004a), high school graduates earned standard diplomas at a lower rate in 2001 than in 1991. Most postsecondary institutions require the standard diploma for admission although community college students may gain admission by attaining a graduate equivalency diploma (GED) (Florida Department of Education, 2002b).

## Summary

Because student success is a concern of postsecondary institutions, it then stands to reason that institutions would be interested in the individual differences in motivational levels among students. It would also stand to reason that because community colleges in the United States are responsible for the education of over half of the postsecondary education population, these institutions would be concerned about academically prepared

student success as well as academically unprepared student success. Dweck (2000) found that students who were told that their academic ability was not as high as others tended to begin to exhibit behavior of learned helplessness. It is reasonable that high school graduates who enter college unprepared to compete academically with students who are at college-level would exhibit this type of behavior and not be dedicated to expend effort in the remedial courses they are mandated to complete.

Cross (2001) stated that motivation is at the center of student success and this calls for the study of academic motivation among all students in the community college, prepared and unprepared. It is apparent that students' academic motivation would have a direct impact on the overall success of the community college. The present study will attempt to address the motivational levels of these two groups of students and then investigate any correlation between the academic success of these students and their motivational levels.

# CHAPTER 3

# RESEARCH METHODOLOGY

Students in postsecondary education come to colleges and universities across the nation with various levels of preparedness. Although high school grades have proved to be an accurate predictor of collegiate academic success, motivation may prove to be a necessary factor that often is omitted in studying academic success. As Cross (2001) stated, motivation is at the center of academic success, therefore it is important to assess the motivational levels of students, especially those who are academically unprepared. Because of the increased number of courses they must take to complete a college degree academically unprepared students must find motivation to proceed toward their academic goals. If there are significant differences in the motivation of the academically prepared and the academically unprepared students and the specific motivational levels are correlated with academic success, postsecondary institutions could employ strategies to increase motivation and success in the collegiate population.

## Purpose of Study

The purpose of this study was to (a) determine if there is a difference in motivational levels between academically prepared students and academically unprepared students and (b) determine if a relationship between specific academic motivation levels and academic achievement exists. These aspects were studied in academically prepared and academically unprepared college students at Gulf Coast Community College, a northwestern Florida community college with an enrollment of 6,000 to 7,000 students. The following general question was addressed: Is there a difference in the motivational levels of community college students who are academically prepared to attend college

and those community college students who are academically unprepared to attend college? Specifically, the study concentrates on the following questions:

1. Do academically prepared students report greater intrinsic motivation than academically unprepared students?
2. Do academically prepared students report greater extrinsic motivation than academically unprepared students?
3. Do academically prepared students report less amotivation than academically unprepared students?
4. Is there a relationship between motivational levels and grade point average?

The variables examined in the first three questions are academic preparedness and academic motivation. Each question comparing student groups with regard to their self-reported motivation level. For the fourth question, the independent variable studied was academic motivational level and the dependent variable was academic achievement as described by grade point average (GPA). Finally, the study examined the impact and strength that motivation, preparedness, and past academic achievement had on college academic achievement. Variables included academic preparedness as number of preparatory courses the student took, reported academic motivation level, and high school GPA. Ethnicity and gender data were also collected to ascertain what impact these fixed variables may have on academic motivation and GPA.

## Research Design

To assess if there is a difference in the motivational levels of academically prepared students and academically unprepared students, a quantitative descriptive study was employed to examine differences between the two groups. The Academic Motivation Scale (AMS-C) was used to gather motivational data from both groups. To analyze the data gathered from the surveys, t-tests were used to distinguish the motivational differences between the two groups. End of term GPAs were correlated with scores on the AMS-C to determine if there is a relationship between motivational levels and academic achievement of students in both groups. Correlations were determined by implementing an ANOVA. The ANOVA allowed a correlation to be made between three or more populations and another factor (Glass & Hopkins, 1996). Namely, these were to compare the means of the identified motivational levels and term GPA. Finally, the

researcher implemented a multiple regression model to ascertain the strength of motivation in predicting the academic achievement of first semester community college students. Again, academic achievement was measured by assessing student first term college GPA and this term GPA was used as the dependent variable. Independent predictor variables were student high school GPA, academic motivation level, and level of academic preparedness.

**Data Source**

The site chosen for the study, Gulf Coast Community College, which enrolls an average of 7,000 students per semester, is located in Northwest Florida and awards Associate in Arts, Associate in Science, and Associate in Applied Science degrees as well as certification in vocational areas and adult basic education. The first group of students studied at this mid-size institution, academically prepared students, consisted of 2003 high school graduates who were in their first semester at the community college, and were defined as those students who were Bright Futures scholarship recipients. The Bright Futures scholarship program is a state of Florida program that awards scholarships to high school graduates who have taken 4 English credits, 3 math credits consisting of Algebra I and higher, 3 natural science credits (2 of which must contain a laboratory component), 3 social science credits, 2 foreign language credits, achieve minimum composite scores of 20 on the ACT or 970 on the SAT, and graduate with a minimum 3.0 GPA (Florida Department of Education, 2004b). These students have taken the college placement test and have achieved scores that allow them direct entry into college-level courses without the necessity of remediation in English, reading, or mathematics. During the Fall 2003 semester, Gulf Coast Community College reported 247 first-time-in-college students who were recipients of the Bright Futures scholarship (Gulf Coast Community College Office of Financial Aid, 2003). The rationale for using Bright Futures scholarship recipients as the college-level sample was that these students were already in the college's student database identified as college-level or academically prepared. These students were academically eligible to attend a state university upon graduating from high school but chose to attend a community college. Other students who were not Bright Futures scholarship recipients may have met the college-level criteria, however this

particular group could be identified with greater ease through query in the student database.

The second population from, the academically unprepared students, were those 2003 high school graduates who, after taking the college placement test, scored below the state of Florida mandated placement scores for college-level study in at least one of the following areas: English, reading, or mathematics. Florida Statute 1008.30 states that a common placement test must be administered to all students presenting themselves for admittance in a college degree program (Florida Statutes, 2004). The state-wide common placement testing program mandates specific scores by which a student qualifies for college-level placement in each area. Currently Florida utilizes the Accuplacer test, published by the College Board, as its common placement test. The Florida Board of Education established college-level criteria scores on the Accuplacer as the following: English 83, reading 83, and algebra 72. Students scoring below these college-level criteria scores must remediate the deficiency to progress to college-level study in the three areas. During the Fall 2003 semester, Gulf Coast Community College reported 335 first-time-in-college students who achieved a score on the placement test that required remediation in at least one area (English, reading, or mathematics). For these students to attain an Associate in Arts (A.A.) degree, the university transfer degree, the degree program will consist of a minimum of three to a maximum of 23 hours of remedial credit in addition to their 60 credit hour degree. Students must achieve a minimum grade of C in remedial courses to matriculate to the next level of study in each subject area.

## Operational Definitions

For this study, motivation was defined by three components: intrinsic motivation, extrinsic motivation, and amotivation. Intrinsic motivation is described as the desire to do something for the sheer enjoyment of participating in the activity (Cokley, Bernad, Cunningham, & Motoike, 2001; Deci & Ryan, 1985; Vallerand, Blais, Briere, Pelletier, Senecal, & Vallieres, 1992a; Vallerand, et al., 1993). Intrinsic motivation can also be viewed from the academic realm. Pajares (2001) stated that students who are intrinsically motivated are driven by the challenge they feel in mastering subject matter. Deci and Ryan (1985) identified the three components of intrinsic motivation as (a) the intrinsic motivation to know something, (b) the intrinsic motivation to accomplish something, and

(c) the intrinsic motivation to experience something stimulating. These three components of intrinsic motivation form the framework for assessing intrinsic motivation in this study.

The second component of motivation is the construct of extrinsic motivation. Extrinsic motivation is described as the drive to do something because of a reward or goal that is desired (Agbor-Baiyee, 1997; Deci & Ryan, 1985; Donohue & Wong, 1997; Hamilton, 1996; Vallerand, et al., 1992a; Vallerand et al., 1993). Deci and Ryan (1985) identified the three components of extrinsic motivation as (a) external regulation that addresses the existence of an external controlling force governing behavior, (b) introjected regulation that is based on past successful experience and internalizing the relationship, and (c) identification, which takes introjected regulation one step further by internalizing the past experience and then realizing an importance or value of the behavior that brought about the success. The two identified groups were assessed on these three concepts of external motivation.

The third component of motivation is amotivation described by Deci and Ryan (1985) as being the perception of a complete disconnect of behavior and outcome. Amotivation is the belief that whatever one does has no affect on results. This is particularly applicable to education and the present study because of Cross' (2001) and Dweck's (2000) assertions that students may exhibit signs of learned helplessness that lead them to believe that their ability is unchangeable and therefore their efforts are not related to outcomes.

## Instrument

To assess the components of motivation, the present study employed the Academic Motivation Scale - College Version (Vallerand, Blais, Briere, Pelletier, Senecal, & Vallieres, 1992b). The AMS-C was developed from the original French-Canadian version, the *l' Echelle de Motivation en Education* (EME) (Vallerand, Blais, Biere, & Pelletier, 1989) and has been used with an American collegiate population (Cokley, Bernard, Cunningham, & Motoike, 2001). Both English and French-Canadian versions of the AMS-C were designed for the junior college or community college population (Vallerand, et al., 1992a; Vallerand, et al., 1993), this was a major factor in selecting the AMS-C for this study.

The AMS-C is a 28-item Likert-scale questionnaire that assesses seven subscales of motivation related to postsecondary education (see Appendix A). The AMS-C was based on Deci and Ryan's (1985) concept of self-determination and reveals levels of intrinsic motivation, extrinsic motivation, and amotivation (Vallerand, et al., 1992a; Vallerand, et al., 1993). Seven subscales are included to assess motivation; intrinsic motivation (a) to know, (b) to accomplish, and (c) to experience stimulation; extrinsic motivation (a) external regulation, (b) introjection, and (c) identification; and amotivation. High scores in one of the seven areas indicate the individual's strength of academic motivation and a desire to pursue postsecondary education (Vallerand, et al., 1989). Combined subscale scores indicate the extent to which a student is intrinsically, extrinsically, or amotivated in regard to his or her academic pursuits. Because the AMS-C reports ordinal data, there is no way to categorize students as being totally intrinsically motivated, totally extrinsically motivated, or amotivated (Glass & Hopkins, 1996). Scores reveal tendencies and beliefs that students hold of themselves and their commitment to postsecondary education.

Validity. The construction of the forerunner to the AMS-C, the *l' Échelle de Motivation en Éducation* (EME), was conducted based on Deci and Ryan's (1985) self-determination theory applied to education (Vallerand, Blais, Briere & Pelletier, 1989). Researchers interviewed 358 college students (124 males and 234 females) at two colleges about their reasons for attending college. Validity was ascertained by performing a factorial analysis to explain variance. The analysis indicated that 68% of the variance was explained with regard to the subscales of intrinsic motivation and 57% of the variance explained for the subscales of extrinsic motivation and the amotivation scale combined. Further analysis revealed correlations of the seven subscales of motivation and other psychological concepts that relate to academics. Such concepts as positive emotions in class, distractions in class, satisfaction with school, academic intent, and nihilism with regard to education were correlated with the seven subscales of academic motivation.

More than 3,000 students participated in the 1992 validation of the original French-Canadian version of the EME. Results gathered from Canadian students involving this version revealed an internal validity at an alpha level of .80 and revealed a strong temporal consistency with a test-retest $r$=.75 (Vallerand, et al., 1992a). Temporal

consistency was recorded through a test-retest procedure with the participants over a one-month period. Construct validity of the EME was assessed through use of several internal correlational analyses and correlations with other educational constructs such as educational interest, satisfaction with school, and amount of time students dedicate to academics. Results from these analyses revealed significant correlation with regard to the extremes of the motivation continuum. In other words, amotivation was negatively correlated with the subscales of intrinsic motivation: intrinsic motivation to know, -.30; intrinsic motivation to accomplish, -.25; and intrinsic motivation to experience sensation or pleasure, -.08 (correlations at .10 or greater were significant at $p<.01$). Amotivation also revealed a significant correlation with the extrinsic motivation-regulation $r=-.32$. Stronger significant correlations were found within the subscales with intrinsic motivation to know and intrinsic motivation to accomplish recording $r=.74$ (Vallerand, et al., 1989). With regard to the other psychological concepts, the EME revealed significant correlation between amotivation and interest in school ($r=-.37$), perception of academic competence ($r=-.20$), positive emotions in class ($r=-.27$), satisfaction with school ($r=-.31$), distractions in class ($r=.28$) and belief in nihilism ($r=.40$). Other significant correlation was found between extrinsic motivation-introjection and interest in school ($r=.30$), participation in school activities ($r=.20$), and positive emotions in class ($r=.20$). The strongest significant correlations were found between intrinsic motivation subscales and interest in school (intrinsic to know, $r=.62$, intrinsic to accomplish $r=.59$ and intrinsic to experience sensation or pleasure $r=.44$). From these initial results, the authors concluded the results supported the use of the EME in educational research (Vallerand, et al., 1989).

Vallerand, et al. (1992a) translated the EME into English for use with an English speaking population. First, the researchers translated the questionnaire from French to English using a parallel back-translation process. This was accomplished by a bilingual person translating the scale from French to English. Next, another bilingual person, without reading the original version, translated the English version back into French. This process controls for bias that may occur from a single person translating the instrument. Vallerand, et al. (1992a) used two separate parallel back-translation processes, which resulted in two drafts of the AMS-C. These two drafts were later scrutinized by a

committee of bilingual speakers and the authors of the original French version. This committee selected the 28 items that maintained the meaning of the original version and thus created the English version. Afterwards, a panel of 10 English speaking junior college students reviewed the version and critiqued it for clarity and use of appropriate language. Both instructions and questions were reviewed and some minor modifications were made to enhance the readability of the instrument (Vallerand, et al., 1992a).

This English version, the AMS-C, was then given to 745 students in an Ontario college (Vallerand, et al., 1992a). In order to asses the validity of the instrument a confirmatory factor analysis was performed using LISREL VI. The analysis performed relied upon a chi-square, Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI) and Normed Fit Index (NFI). All of these generate scores ranging from zero to one with a score of one revealing a precise model fit. Vallerand, et al. (1992a) found an NFI score of .89, AGFI score of .87, and a GFI score of .89 at the $p<.001$ level. In addition to these results, "correlations between pairs of measured-variable residuals were added to the model on the basis of inspection of the modification indices" (Vallerand, et al., 1992a, p. 1011). These additions resulted in an NFI score of .93, AGFI score of .91, and a GFI score of .94, again at the $p<.001$ level. Correlations were assessed between the first model and the second, measured-variable residuals added by using the lambda x parameters and phi parameters. The correlations resulted in a lambda x correlation of .99 and a combined lambda x and phi parameters correlation of .98. These results show that the English version of the AMS-C replicated the French version validity results and that the inclusion of the additional parameters had no effect on the original model of the factor analysis (Vallerand, et al., 1992a).

Vallerand, et al. (1993) reported validity findings on the 28 item AMS-C from performing three correlational assessments on the instrument. The scale is divided into seven subscales that reflect the different types of intrinsic motivation, extrinsic motivation, and amotivation. Positive correlation was found among the intrinsic motivations ($r=.58$, .59, and .62 respectively among intrinsic motivation to know, intrinsic motivation to accomplish, and intrinsic motivation to experience stimulation). Negative correlations were found among the concepts that are on the opposite ends of the motivational continuum, eg., the correlation between intrinsic motivation to know and

amotivation was reported at -.43. Similar correlations were found with the original EME, thus establishing the consistency between the two forms of the scale.

The second correlational assessment Vallerand, et al. (1993) performed on the AMS-C was to compare the AMS-C with other concepts that are relative to motivation. Vallerand and his colleagues calculated correlations between perceived competence, classroom climate, educational optimism, and self-actualization autonomy and the seven subscales in the AMS-C. Amotivation correlated negatively with all concepts relative to motivation while most of the motivation concepts correlated positively with intrinsic motivation. Finally, the researchers calculated correlations between the AMS-C and motivational outcomes. Motivational outcomes identified were concentration and positive emotions in class, academic satisfaction, reported grades, and schooling intentions. Again, motivational outcomes correlated negatively with amotivation and correlated positively with intrinsic motivations (Vallerand, et al., 1993). Vallerand, et al., (1992a) stated that the validity results were consistent with the concepts of Deci and Ryan's self-determination theory. These researchers also concluded that their results were consistent with the theory's continuum model of motivation. This conclusion was reached by the instrument's reported positive correlations and negative correlations with items on each end of the continuum. Other studies conducted using the instrument in relation to athletics or interpersonal relationships, (ie, replacing the central theme from academics to athletics) resulted in stronger correlations on the subscale of intrinsic motivation to experience stimulation (Vallerand, et al., 1993). The researchers concluded that, perhaps, this dimension may not be as instrumental when assessing motivation in education as it is with assessing motivation in athletics or interpersonal relationships.

Cokley, Bernard, Cunningham, and Motoike (2001) studied the AMS-C with an American population of college students at a Midwestern university. Two hundred and sixty-three students participated in the study and ranged in age from 19 - 45. This study compared results from the AMS-C with the Academic Self-Concept Scale developed by Reynolds in 1988 (Cokley, et al., 2001). A confirmatory factor analysis was performed to indicate the validity of the AMS-C. As Vallerand, et al. (1992a) had done previously, Cokley, et al. (2001) used a seven-factor model to assess each of the dimensions of the AMS-C. Researchers also implemented a goodness of fit evaluation including a chi

square, NFI, and a comparative fit index (CFI). The closer to one on the NFI and CFI, the better the data fits the model. A fit index of at least .90 indicates a strong fit between the data and the model (Cokley, et al., 2001). Cokley, et al. reported a CFI of .90 but a NFI of .83. Although these results vary from the original findings of Vallerand, et al. (1992a), Cokley, et al. concluded that an overlap exists between the intrinsic subscales and extrinsic subscales. This may indicate support for Deci and Ryan's (1989) self-determination theory that identifies motivation as existing on a continuum. This continuum ranges from the belief of a disconnect between effort and outcome, amotivation, to the internal desire of discovery of knowledge, intrinsic motivation to know.

Reliability. Values found to represent the consistency of the AMS-C (see appendix A) are reported to be compatible with those of the original EME. To assess the internal consistency of the AMS-C, researchers used Cronbach's alpha. All values found on the internal consistency of the instrument indicate a strong correlation (.83 to .86) among subscales. Correlations were found by implementing a test-retest on 57 university students. Students were retested after a month and high correlations were found among the two testing administrations. Correlations ranged from .71 to .83 with an average of .79 on all subscales. Again, results were similar to that of the EME and indicate an internally consistent instrument (Vallerand, et al., 1992a). With an American college population of 263 students, Cokley, et al., (2001) reported individual subscale Cronbach's alpha results as follows: amotivation = .86, external regulation = .81, introjection = .86, identification = .70, intrinsic motivation to know = .83, intrinsic motivation to experience sensation = .81, intrinsic motivation to accomplish = .85. These results are similar to those Vallerand et al. (1992a) reported for the AMS-C with their Canadian English-speaking population.

## Data Collection Procedures

After receiving approval from the Florida State University Human Subjects Committee (see Appendix B), the researcher began collecting data to answer the research questions posed by the study. Upon completion of the Fall 2003 semester registration period, the researcher obtained the names of Gulf Coast Community College students who were 2003 high school graduates, were identified as academically unprepared by

scoring below college-level in at least one area of the college placement test, and were enrolled in at least one developmental course for the Fall 2003 semester. The researcher obtained the names of each of these students from the testing department of the college. The director of student services identified students in the second group, 2003 high school graduates who were Bright Futures Scholarship recipients. The researcher received the names and addresses of the Florida Bright Futures students from the director of student services. These two groups of 2003 high school graduates made up the samples for the present study.

To gather data from the two groups of students, the researcher surveyed all academically prepared 2003 high school graduates and academically unprepared 2003 high school graduates who were enrolled at Gulf Coast Community College for the 2003 Fall term. Schutt (1999) described the technique for surveying each person in an identified group as a census. The census technique for data gathering was employed because both samples are relatively small, 247 and 335 respectively. Census data from both samples reduced the risk of sampling error and increased the generalizability of the study findings to similar institutions (Schutt, 1999). Five hundred and eighty-two surveys were distributed with a cover letter detailing the scope of the study and instructions for returning the completed surveys (see Appendix C). The survey included space for the student to indicate his or her social security number for follow-up purposes and high school graduation date so that the researcher was able to identify the 2003 high school graduates. Results were sorted by the self-reported social security number and kept confidential by following the procedure approved by the Human Subjects Committee. Following the end of the Fall 2003 term, the researcher obtained from the director of student services the term GPA of each student in the study. The researcher provided the director of student services with the social security numbers of all students participating in the study. From this, the researcher was given the number of courses, remedial and college-level, in which the student was enrolled and the term GPA.

Two different methods of questionnaire distribution were pursued for each group of students during the Fall 2003 term. First, for academically prepared students, i.e., the Bright Futures scholarship recipients, the researcher mailed the questionnaire via the United States Postal Service with a cover letter explaining the study, how the student was

selected for the study, the respondents' eligibility for one of five chances to receive $50.00 upon completion and return of the surveys, and an informed consent form to be returned with the survey. Also enclosed in the mailing was a stamped return envelope for returning the completed questionnaire (see Appendix A). Students were instructed to return the completed questionnaire within two weeks to be eligible for the incentive drawing. Responses that were received within two weeks were entered into a drawing where five completed surveys were chosen for those participants to receive $50.00. Two weeks after the initial deadline, a follow-up mailing was sent to non-respondents with the original contents of the first mailing.

The method used to survey the academically unprepared students was to distribute the same packet to these students during class meetings. Because the academically unprepared students were enrolled in at least one developmental course, the unprepared students were basically a captive audience and gave the researcher a greater opportunity to have these students contacted personally by their classroom instructor. Gulf Coast Community College offers six developmental courses: two in English, two in reading, and two in mathematics. The Fall 2003 term included a total of 62 sections of the six developmental courses. The researcher distributed packets to each instructor of each section of each developmental course prior to the mid-term date of the Fall 2003 term with instructions to distribute the surveys following the mid-term date. Instructors were given the choice to have students complete the surveys either in class or to have students complete the surveys as a homework assignment and return the completed surveys during the next class meeting. Each instructor was given instructions to read for each class surveyed.

There was a risk of surveying a student more than once because a student may have been enrolled in more than one developmental course. For this reason, students were instructed not to complete the survey more than once and to return it to the instructor if the student had already completed the survey. This method relied upon the student to self-identify if he or she had previously completed the survey. However, it left open the possibility of some students electing not to participate in the survey. If students had submitted more than one survey, it would have been impossible for the researcher to establish which survey should be calculated into the results, thus contaminating the data.

Instructors returned the completed surveys to the researcher. These students' names were also included in the incentive drawing.

**Data Analysis**

After the respondents submitted the completed survey, the results were analyzed with SPSS statistical software package. SPSS allowed the researcher to calculate the mean scores for each group on each subscale of the AMS-C. Following the calculation of the means for each group on each subscale, the researcher employed a one-tailed t-test to compare the means of each group on each subscale. The results from the t-tests indicate the motivational levels for each group in answer to the first three research questions. According to Glass and Hopkins (1996) and Gay and Airasian (2000), t-tests are a reliable and common statistical analysis to assess significant differences of means between two independent groups. A one-tailed t-test or directional t-test is used when a research question is stated in such a way that one group mean would be higher or lower than the other group mean (Glass & Hopkins, 1996). The first three research questions ask if one group recorded higher scores on intrinsic motivation, extrinsic motivation and amotivation than the other group. These questions indicate that one-tailed t-tests are necessary for each analysis. The researcher established a confidence interval of .95.

Next, the researcher grouped all students according to their scores on the academic motivation subscales. Students were categorized as predominately intrinsically motivated, predominately extrinsically motivated, or predominately amotivated depending on recorded highest combined subscale scores. The researcher then calculated the mean GPA of the students according to their level of academic motivation and performed an ANOVA to discover any correlation between level of academic motivation and GPA. Again, the confidence level was set at .95 to account for the variance of the different groups. The researcher computed a simple Pearson correlation between GPA and scores on the AMS-C to additionally address if there was a relationship between motivational levels and GPA.

Analysis of the data presented allowed the researcher to answer the research questions and offer insight to institutions about the individual differences in motivation among students. Because Cross (2000) reported that college faculty believe that students are mainly concerned with what they will be tested on or what score they have to achieve

to simply pass, in-depth motivation study is necessary for institutions to understand and prepare their students for success. This study contributes to the literature concerning academic success and sheds light on the questions faculty have concerning why all students do not aspire to high standards of academic achievement.

# CHAPTER 4

# RESULTS

## Review of Data Collection Methods

In order to address the questions posed by the research project, a 28-item questionnaire, the Academic Motivation Scale (AMS-C) (see Appendix A), and information packet were mailed to recent high school graduate community college students who were identified as college-ready at Gulf Coast Community College. A follow-up questionnaire was sent to the non-respondents four weeks after the original mailing. The same questionnaire was distributed in the classroom to recent high school graduates who were required to take at least one developmental course. The two groups, known as the academically prepared students and the academically unprepared students, were included in an incentive drawing for returning the completed questionnaire within two weeks. Eighty-four of the 247 academically prepared students completed and returned the surveys for a 34% response rate.

For the academically unprepared group, questionnaires, as well as information and consent letters, were distributed by instructors in the remedial courses the students were required to take. Each academically unprepared student was given the same packet of information that the academically prepared group received. Instructions for the academically unprepared students included that if a student had previously completed the questionnaire, he or she was not to complete the questionnaire a second time. This controlled for the duplication of questionnaires by students who were enrolled in more than one remedial course during the semester. Instructors administering the questionnaire were given the same two week time-frame for distribution and collection of the questionnaires as the academically prepared group had. The number of first-time-in-

college students in remedial courses was 335 (unduplicated head count). From this total, 151 completed questionnaires were returned indicating a 47% response rate. Overall, 582 questionnaires were distributed with 235 respondents, which was a 40% response rate.

All students in both groups were notified that if they responded within two weeks they would be entered in a drawing to receive $50.00. Five drawings were held with each respondent having an equal chance at winning $50.00. Once a student's name was chosen, his or her name was withdrawn from the subsequent drawings.

Upon receiving the completed questionnaires, the researcher calculated the scores on each motivational level and submitted the self-reported social security numbers of the students to the director of student services to obtain the background variables of ethnicity and gender, and the number and level of preparatory courses in which each student was enrolled for the semester. After the end of the fall semester, the researcher requested the fall semester grade point averages (GPA) and the high school GPAs of the students in the study from the director of student services. Upon receipt of the fall semester GPAs and high school GPAs, the researcher entered all data into SPSS to begin performing the statistical analyses to address the questions posed by the study.

## Results

To specifically address the questions of this study, the results are presented in response to each research question.

**Research Question One: Do academically prepared students report greater intrinsic motivation than academically unprepared students?** To assess intrinsic motivation in both groups of students, the Academic Motivation Scale (AMS-C) was distributed to students and results were gathered to ascertain if the academically prepared students reported greater intrinsic motivation than the academically unprepared students in the study. The AMS-C, which reveals three categories of intrinsic motivation, is scored on a seven point Likert-type scale. In order for intrinsic motivation to be compared between the two groups, each of the three types of intrinsic motivation were compared for the two groups and then the scores from each of the three types of motivation were combined for an overall intrinsic motivation score for an overall comparison.

The score range for the AMS-C for each subscale was 1-28 points. Students rated statements as describing their academic habits or beliefs, the higher the score the more

closely the statement described them. The intrinsic motivation scores from the AMS-C for the academically prepared and academically unprepared first-time-in-college (FTIC) students at Gulf Coast Community College in the fall of 2003 revealed many similarities. The first intrinsic motivation subscale was intrinsic motivation to know. A high score on this subscale would indicate that the individual is highly motivated by his or her desire to find out something or to know something due to curiosity. The 84 academically prepared students reported a mean score of 19.12 on the scale associated with intrinsic motivation to know. The reported standard deviation was 5.46. The 151 academically unprepared students reported a mean score of 18.12 on the same scale with a reported standard deviation of 4.97. This difference was not statistically significant ($p$=.16) (see Table 1).

The second subscale of intrinsic motivation is that of intrinsic motivation to accomplish. This subscale, as all others, is scored on a seven point scale. Students rated statements according to how closely the statement reflected their beliefs and practices about attending college. On the intrinsic motivation to accomplish, the 84 academically prepared students reported a mean score of 17.87. The reported standard deviation was 5.57. The 151 academically unprepared students reported a mean score of 17.78 on the same scale with a reported standard deviation of 5.30. This difference was not statistically significant ($p$=.91) (see Table 1).

The third subscale of intrinsic motivation, intrinsic motivation to experience stimulation assesses the degree to which students desire to be stimulated or excited by pursing higher education. Students rated statements on a scale of 1-7 as they believed the statement reflected their beliefs of their collegiate experience. Low scores indicated that the students reported little consistency between their academic beliefs and behaviors and the statement and high scores indicated that the students reported strong similarities between their academic beliefs and behaviors and the statements. The 84 academically prepared students reported a mean score of 12.94 on the scale associated with intrinsic motivation to experience stimulation. The reported standard deviation was 5.86. The 151 academically unprepared students reported a mean score of 13.81 on the same scale with a reported standard deviation of 5.49. This difference was not statistically significant (see Table 1).

To assess overall intrinsic motivation among the two groups of students, the researcher combined the total scores of all three intrinsic motivation subscales to reveal an overall intrinsic motivation score. The score range for the combined subscales was 1-84 points. The 84 academically prepared students reported a mean combined intrinsic motivation score of 50.00 with a reported standard deviation of 15.65. The 151 academically unprepared students reported a mean combined intrinsic motivation score of 49.50 with a reported standard deviation of 14.30. This difference was not statistically significant ($p$=.80) (see Table 1).

Table 1
Comparison of Intrinsic Motivation Variables based on Academic Preparation
t-Tests for Independent Means (N=235)

| Motivation Assessment | Preparation Level | N | Mean Score | Standard Deviation | Mean Difference | Significance |
|---|---|---|---|---|---|---|
| Intrinsic Motivation to Know | Academically Prepared | 84 | 19.12 | 5.46 | 1.00 | .155 |
| | Academically Unprepared | 151 | 18.12 | 4.97 | | |
| Intrinsic Motivation to Accomplish | Academically Prepared | 84 | 17.87 | 5.57 | .09 | .905 |
| | Academically Unprepared | 151 | 17.78 | 5.30 | | |
| Intrinsic Motivation to Experience Pleasure | Academically Prepared | 84 | 12.94 | 5.86 | -.87 | .255 |
| | Academically Unprepared | 151 | 13.81 | 5.49 | | |
| Total Intrinsic Motivation | Academically Prepared | 84 | 50 | 15.65 | .50 | .803 |
| | Academically Unprepared | 151 | 49.50 | 14.30 | | |

$p$<.05

Results indicate that there is no significant difference between the two groups with regard to intrinsic motivation. Although the academically unprepared group recorded a mean score higher than the academically prepared students on the index of intrinsic motivation to experience pleasure, statistically the two groups reported no significant difference using the t-test for Independent Means on the motivational scale associated with intrinsic motivation.

In summary, the first research question addressed the relationship between intrinsic motivation and level of academic preparation for students. None of the four measures indicated a significant difference between the two categories of students with regard to intrinsic motivation.

**Research Question Two: Do academically prepared students report greater extrinsic motivation than academically unprepared students?** To assess if academically prepared students report greater extrinsic motivation than academically unprepared students, scores from the AMS-C were calculated for the three extrinsic motivation subscales. These three subscales delineated extrinsic motivation on a continuum ranging from identification to introjection to external regulation.

Identification is a form of extrinsic motivation whereby individuals realize the importance of an outcome and desire this outcome and thus will perform the tasks necessary to achieve that specified outcome. Identification is an extrinsic motivational factor because individuals see an outcome that they want and then proceed with effort to obtain the outcome. The second delineation of extrinsic motivation is introjection, which is the concept that individuals internalize regulatory action that they have learned and in turn act according to the choice they make between two actions that may be in conflict. The third component of extrinsic motivation measured by the AMS-C is external regulation. This concept is that an individual will behave in a specific way to receive an immediate reward or avoid an immediate punishment. The AMS-C assesses these motivational factors to evaluate the extent that an individual is extrinsically motivated. Students ranked statements according to how closely the statements reflected their beliefs and actions and these scores were calculated for each respondent and then calculated for both the academically prepared group and the academically unprepared group.

After the scores for each group were calculated for the three extrinsic motivation subscales, the scores were combined for an overall extrinsic motivation score. Scores on the three subscales could range from 1-28 and scores on the combined extrinsic motivation scale could range from 1-84. Low scores indicated the student realized little or nothing in common with the statement and high scores indicated the student realized strong identification with the statement. Calculated results reveal that academically prepared students reported a mean score of extrinsic motivation identification of 22.90 with a standard deviation of 3.67. Academically unprepared students reported a mean score of extrinsic motivation identification of 22.57 with a standard deviation of 4.23. The mean difference was .34 and was not statistically significant ($p$=.54). Academically prepared students reported a mean score of extrinsic motivation introjection of 18.48 with a standard deviation of 5.74. Academically unprepared students reported a mean score of extrinsic motivation introjection of 20.66 with a standard deviation of 5.58. The mean difference was -2.18 which was statistically significant ($p$=.005) (see Table 2). Academically prepared students reported a mean score of extrinsic motivation external regulation of 22.30 with a standard deviation of 4.60. Academically unprepared students reported a mean score of extrinsic motivation external regulation of 23.39 with a standard deviation of 4.31. The mean difference was -1.09, which just failed to reach statistical significance ($p$=.07). Academically prepared students had a mean overall extrinsic motivation score of 63.45 with a standard deviation of 12.03. Academically unprepared students had a mean overall extrinsic motivation score of 66.46 with a standard deviation of 12.14. The mean difference was -3.00, which just failed to reach statistical significance ($p$=.07) (see Table 2).

Table 2
Comparison of Extrinsic Motivation Variables Based on Academic Preparation
t-Tests for Independent Means (N=235)

| Motivation Assessment | Preparation Level | N | Mean Score | Standard Deviation | Mean Difference | Significance |
|---|---|---|---|---|---|---|
| Extrinsic Motivation - Identification | Academically Prepared | 84 | 22.90 | 3.67 | .34 | .54 |
| | Academically Unprepared | 151 | 22.57 | 4.23 | | |
| Extrinsic Motivation- Introjection | Academically Prepared | 84 | 18.48 | 5.74 | -2.18 | .01* |
| | Academically Unprepared | 151 | 20.66 | 5.58 | | |
| Extrinsic Motivation - External Regulation | Academically Prepared | 84 | 22.30 | 4.60 | -1.09 | .07 |
| | Academically Unprepared | 151 | 23.39 | 4.31 | | |
| Total Extrinsic Motivation | Academically Prepared | 84 | 63.45 | 12.03 | -3.00 | .07 |
| | Academically Unprepared | 151 | 66.46 | 12.14 | | |

*$p$<.05

Scores revealed in each group were varied and academically unprepared students reported a statistically significant higher mean on extrinsic motivation introjection. Using the t-Test for Independent Means also revealed a slight difference between the groups, the academically unprepared group reported slightly higher total extrinsic motivation scores, but neither was statistically significant. The two score comparisons, external regulation and total extrinsic motivation, just missed the $p$=.05 statistically significant threshold ($p$=.07, $p$=.07) indicating that academically unprepared students report slightly higher extrinsic motivation than academically unprepared students.

**Research Question Three: Do academically prepared students report less amotivation than academically unprepared students?** The AMS-C assesses amotivation on one scale that ranges from 1-28. Amotivation is the perceived disconnect

between effort and outcome (Deci & Ryan, 1985). Students ranked statements relating to how closely the statements mirrored their academic behaviors and beliefs. The lowest scores in the scoring range were least like the student and the higher scores in the range were more reflective of the students' behaviors and beliefs. Results from the academically prepared group of students revealed a mean of 5.37 on amotivation with a standard deviation of 4.14. The academically unprepared group of students reported a 6.21 mean score on the amotivation scale with a standard deviation of 3.84. The mean difference between the two groups on this measure was -.84, which was not statistically significant ($p$=.12) using the t-Test for Independent Means. Although these scores did not reveal a statistically significant difference, the academically prepared students reported slightly less amotivation than their academically unprepared counterparts.

Table 3
Comparison of Amotivation Variable and Based on Academic Preparation
t Tests for Independent Means (N=235)

| Motivation Assessment | Preparation Level | N | Mean Score | Standard Deviation | Mean Difference | Significance |
|---|---|---|---|---|---|---|
| Amotivation | Academically Prepared | 84 | 5.37 | 4.14 | -.84 | .12 |
| | Academically Unprepared | 151 | 6.21 | 3.84 | | |

$p$<.05

**Research Question Four: Is there a relationship between motivational levels and grade point average?** To assess if there is a relationship between motivational levels and academic achievement, student scores from the AMS-C were correlated with their first term college grade point average (GPA). Students rated their academic beliefs and behaviors on a scale of 1-7 with lower scores revealing little or no agreement with the statement and higher scores on statements revealed how strongly the student agreed with the statement. Students were then grouped according to the highest motivational

level on the seven subscales of intrinsic motivation to know, intrinsic motivation to accomplish, intrinsic motivation to experience stimulation, extrinsic motivation - identification, extrinsic motivation - introjection, extrinsic motivation - external regulation, and amotivation. From these groupings a one-way ANOVA was calculated to determine if there was a difference in the mean GPA of students in each motivational group. Following the calculation of the one-way ANOVA, a simple Pearson correlation was calculated with the variables of the seven subscales of motivation and term GPA and also of overall intrinsic motivation, extrinsic motivation, and amotivation scores and term GPA.

Computations from the ANOVA revealed the following results for the seven subscales of academic motivation and term GPA. The researcher included an eighth category, equal scores, for those students who reported equal high scores on two or more subscales. The ANOVA calculations were as follows: $F(7, 225) = 1.48$, $p = .18$. A Tukey HSD post hoc test was performed to distinguish the differences in each subscale. Comparisons of mean GPA for each subscale are shown in Table 4. Motivational levels are identified as the following: intrinsic motivation to know, intrinsic motivation to achieve, intrinsic motivation to experience pleasure, extrinsic motivation-identification, extrinsic motivation-introjection, extrinsic motivation-external regulation, and amotivation. None of the Tukey post hoc tests were significant at the $p$=.05 level.

Table 4
College GPA Based on Highest Type of Motivation
One Way ANOVA Test with Tukey Post Hoc Tests (N=233)

| Motivational Level | N | GPA | Standard Deviation |
|---|---|---|---|
| Intrinsic to know | 12 | 3.17 | 1.12 |
| Intrinsic to accomplish | 2 | 2.84 | .58 |
| Intrinsic to experience satisfaction | 2 | 2.00 | 2.83 |
| Extrinsic - identification | 50 | 2.94 | .93 |
| Extrinsic - introjection | 18 | 2.58 | .95 |
| Extrinsic - external regulation | 84 | 2.45 | .81 |
| Amotivation | 5 | 2.68 | 1.57 |
| Equal scores | 60 | 2.70 | .94 |

After calculating the subscale ANOVA results, the researcher grouped students by their highest scores on the combined intrinsic motivation subscales and combined extrinsic motivation subscales. The researcher included a fourth category, equal scores, for those students who reported equal combined scores on intrinsic motivation and extrinsic motivation scales. Student GPA means for each group were compared by calculating ANOVA. The ANOVA revealed the following results: $F(3, 29)=3.58$, $p=.02$. A Tukey HSD post hoc test was performed to ascertain the differences in the means of each group. Comparisons were as follows and are detailed in Table 5. The post hoc test revealed a higher mean GPA for intrinsic students as compared to extrinsic students ($M=3.33$ versus $M=2.64$) ($p=.02$). No other post hoc comparison was significant at the $p=.05$ level (see Table 5).

Table 5
Comparison of Mean GPA Based on Motivational Levels
One Way ANOVA Test with Tukey Pos Hoc Tests (N=233)

| Motivational Level | N | Mean GPA | Standard Deviation |
|---|---|---|---|
| Intrinsic | 17 | 3.33* | .99 |
| Extrinsic | 204 | 2.64* | .91 |
| Amotivation | 6 | 2.37 | 1.41 |
| Equal | 6 | 3.13 | .66 |

*Mean GPA of intrinsically motivated students higher than extrinsically motivated. Statistically significant, $p=.02$

The researcher then computed a simple Pearson correlation between GPA and scores on the AMC-S. The correlation computed between intrinsic motivation to know and term GPA $r=.08$, which reveals no significant correlation between the two. The correlation computed between intrinsic motivation to accomplish and term GPA $r=.06$, which reveals no significant correlation between the two. The correlation computed between intrinsic motivation to experience stimulation and term GPA $r=-.11$, which reveals no significant correlation between the two. The correlation computed between

overall intrinsic motivation and term GPA $r$=.02, which reveals no significant correlation between the two. The correlation computed between extrinsic motivation identification and term GPA $r$=.05, which reveals no significant correlation between the two. The correlation computed between extrinsic motivation introjection and term GPA $r$=-.11, which reveals no significant correlation between the two. The correlation computed between extrinsic motivation external regulation and term GPA $r$=-.16, the correlation is significant at the .05 level. The correlation computed between overall extrinsic motivation and term GPA $r$=-.11, which reveals no significant correlation between the two. The correlation computed between amotivation and term GPA $r$=-.31, which is significant at the .05 level. Findings for the correlation between motivational level and GPA are detailed in Table 6.

Table 6
Relationship Between Motivational Level and GPA
Pearson Correlation

| Motivational Level | Correlation Coefficient |
|---|---|
| Intrinsic to know | .07 |
| Intrinsic to accomplish | .06 |
| Intrinsic to experience stimulation | -.11 |
| Overall intrinsic | .02 |
| Extrinsic identification | .05 |
| Extrinsic introjection | -.11 |
| Extrinsic external regulation | -.16* |
| Overall extrinsic | -.11 |
| Amotivation | -.31* |

*Statistically significant, $p$<.05 (1-tailed)

Last, the researcher performed a multiple regression to determine which variable presented the strongest predictor of academic achievement. Variables included in the multiple regression were high school GPA, preparation level and motivational level. The multiple regression revealed the following: high school GPA was the strongest single predictor of term GPA $r$=.50. Including the variable of preparedness, i.e. college-level or not, with the high school GPA increased strength of the term GPA to $r$=.52. Using the

high school GPA and the amount and level of student's preparatory courses increased the prediction to *r*=.53. Multiple regression results are delineated in Tables 7 and 8 below.

Table 7
Summary of Regression Analysis of Predictor Valuables for Academic Achievement
Stepwise Multiple Regression

| Predictors | R | R Squared | Standard Error of Estimate |
|---|---|---|---|
| High School GPA | .50 | .25 | .81 |
| High School GPA and Preparedness | .52 | .27 | .80 |
| High School GPA and Number/Level of Preparatory Courses | .53 | .28 | .79 |
| High School GPA, Number/Level of Preparatory Courses, and Motivational Level | .53 | .28 | .80 |

As noted in the table above, the inclusion of Motivational Level revealed little effect as a predictor of college term GPA. Table 8 details the results and significance of the individual predictor variables. High school GPA is the strongest predictor of college term GPA with a β=.39, *p*=.00. The predictor variable of number and level of preparatory courses revealed a β=-.20, *p*=.01. This indicates that the greater number of preparatory courses and the lower levels of preparatory courses revealed a negative correlation with college term GPA. Last, motivational level revealed a β=.02, *p*=.80, which indicates a prediction based upon motivational level accounts for a minute amount of variance.

Table 8
Standardized Coefficients

| Predictor Variables | Beta | t | Significance |
|---|---|---|---|
| High School GPA | .39 | 5.45 | .00* |
| Number and Level of Preparatory Courses | -.20 | -2.77 | .01* |
| Motivational Level | .02 | .26 | .80 |

*$p$<.05

**Demographic Comparisons**

Of the 235 students who participated in the study, two results were omitted from the study due to insufficient records. From this total of 233, 75 or 32.2% were male and 158 or 67.8% were female. Term GPA mean for male students was 2.43 and the term GPA mean for female students was 2.83 with a mean difference of -.40. An ANOVA was performed to establish the significance of this comparison, which revealed a statistically significant difference between the two groups ($p$=.00) (see Table 9).

Table 9
Gender Comparisons of GPA.
t-Test for Independent Means (N=233)

| Gender | N | GPA | Standard Deviation |
|---|---|---|---|
| Male | 75 | 2.43* | .95 |
| Female | 158 | 2.83* | .91 |

*Difference statistically significant, -.40, $p$=.00

One hundred and ninety-three students or 82.2% were Caucasian, 25 or 10.7% were African American, 5 or 2.1% were Asian American, with 10 or 4.3% Other. Caucasian students reported a mean GPA of 2.80, African American students reported a 2.06 mean term GPA, Asian American students reported a 2.37 mean term GPA, and the category of Other reported a 2.47 mean term GPA. An ANOVA was utilized to determine the significance between ethnic group GPA and these means and differences are detailed in Table 10. The comparison of mean term GPA for each ethnic group was calculated and

the differences are as follows: between Caucasian and African American students .74, which was found to be statistically significant ($p$=.00); between Caucasian and Asian American students .43, which revealed no statistically significant difference ($p$=.31); between Caucasian and Other students .33, which revealed no statistically significant difference ($p$=.27); between African American and Asian American students -.31, which revealed no statistically significant difference ($p$=.48); African American and Other students -.41, which revealed no statistically significant difference ($p$=.18); and Asian American and Other students -.10, which revealed no statistically significant difference ($p$=.87). Table 10 below details GPA calculations for identified ethnic groups.

Table 10
Ethnicity Comparisons of GPA.
t-Test for Independent Means (N=233)

| Ethnicity | N | GPA | Standard Deviation |
|---|---|---|---|
| Caucasian | 193 | 2.80 | .92 |
| African American | 25 | 2.06 | .76 |
| Asian American | 5 | 2.37 | 1.42 |
| Other | 10 | 2.47 | .88 |
| Total | 233 | 2.70 | .94 |

Comparisons of term GPA were made for gender and ethnicity within preparedness groups. Academically prepared male students reported a mean term GPA of 3.07 and academically prepared female students reported a mean term GPA of 3.29, a difference of -.22, which was not statistically significant ($p$=.20). Academically prepared Caucasian students reported a mean GPA of 3.25 with a standard deviation of .70. There were no African American students in the academically prepared group. Academically prepared Asian American students reported a mean term GPA of 3.18 with a standard deviation of .29. Students whose ethnicity was considered Other reported a mean term GPA of 3.09 with a standard deviation of .41. Comparisons among ethnicity groups within the academically prepared group were not calculated due to the relatively small number of students in the Asian American group (3) and the number of students in the

Other group (5) compared to the number of Caucasian students in this group (76) (See Table 11).

Table 11
Comparison of Academically Prepared Student GPA by Gender
t-Test for Independent Means (N=84)

| Gender | N | GPA | Standard Deviation |
|---|---|---|---|
| Male | 20 | 3.07 | .66 |
| Female | 64 | 3.29 | .68 |

The academically unprepared group consisted of 149 students, 55 male and 94 female. The male students reported a mean term GPA of 2.19 with a standard deviation of .94 and the female students reported a mean term GPA of 2.51 with a standard deviation of .91. The difference of the male and female term mean GPA revealed a difference of -.31, which was statistically significant ($p$=.05) (See Table 12). The academically unprepared students' term GPA were calculated according to the students' ethnicity and revealed the following comparisons. Caucasian students reported a mean term GPA of 2.51 with a standard deviation of .93. African American students reported a mean term GPA of 2.06 with a standard deviation of .76. A t-test was employed to compare the two groups' mean term GPA and the difference was .45, which was statistically significant ($p$=.03). The total number of students in the Asian American academically unprepared group was two and the total number of students in the Other academically unprepared group was five. Comparisons among these last two groups were not calculated due to the small number of students in each category. Table 13 details the comparisons for these groups.

Table 12
Comparison of Academically Unprepared Student GPA by Gender
t-Test for Independent Means (N=149)

| Gender | N | GPA | Standard Deviation |
|---|---|---|---|
| Male | 55 | 2.19* | .94 |
| Female | 94 | 2.51* | .91 |

*Difference between two groups statistically significant, -.31, $p$=.05

Table 13
Comparison of Academically Unprepared Student GPA by Ethnicity
t-Test for Independent Means (N=149)

| Ethnicity | N | GPA | Standard Deviation |
|---|---|---|---|
| Caucasian | 117 | 2.51* | .93 |
| African American | 25 | 2.06* | .76 |
| Asian American | 2 | 1.15 | 1.63 |
| Other | 5 | 1.85 | .79 |
| Total | 149 | 2.39 | .93 |

*Difference between two groups statistically significant, .45, $p$=.03

## Summary

Comparisons of motivational levels between academically prepared and academically unprepared students revealed little difference in why students pursued postsecondary education. However, students who are intrinsically motivated reported higher GPAs than those who were extrinsically motivated. There was also a statistically significant negative correlation between amotivation and GPA. Finally, high school GPA was found to be the strongest predictor of college GPA. When the addition of number and level of preparatory courses was added to the equation, the strength in predicting college GPA increased. Motivational levels were negligible in increasing the strength of predicting college GPA.

# CHAPTER 5

# SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of the study was to determine if there was a difference in motivational level between academically prepared and academically unprepared students in the community college. A second purpose was to determine if a relationship exists between motivation and academic achievement. Using Deci and Ryan's (1985) self-determination theory as a model of conceptualizing motivation, the study also addressed the strength of motivation in predicting academic achievement. The study gathered motivational data from students at a mid-sized community college using the Academic Motivation Scale (AMS-C), which is based on Deci and Ryan's (1985) self-determination theory.

The following four questions formed the basis for the study:

1. Do academically prepared students report greater intrinsic motivation than academically unprepared students?
2. Do academically prepared students report greater extrinsic motivation than academically unprepared students?
3. Do academically prepared students report less amotivation than academically unprepared students?
4. Is there a relationship between motivational levels and grade point average?

The AMS-C is a 28-item questionnaire designed to ascertain students' reasons for attending college (Vallerand, et al, 1992a). Students' ratings on a 1-7 point scale indicated how closely they believed the item described their motives for pursuing postsecondary education. The questionnaire reveals three categories of motivation: intrinsic motivation, extrinsic motivation, and amotivation. Within these three categories,

intrinsic motivation and extrinsic motivation contain three further subcategories each. Results from the questionnaires were compiled for the academically prepared and academically unprepared students and mean scores were calculated for both student groups on each category of academic motivation and each subcategory. Students indicated their social security numbers on their questionnaires so that the researcher could correlate motivation outcomes with term grade point average (GPA). The following is a discussion of the findings.

**Research Question 1**

The first research question of this study attempted to ascertain if academically prepared students reported greater intrinsic motivation than their academically unprepared counterparts. Results indicate that the community college students in this study do not show great differences with regard to their desire for learning based upon their internal feelings of why they attend college. Based upon the results from the study, it is apparent that academically prepared and academically unprepared students report no statistically significant difference in intrinsic motivation. This is also true for the three subscales of intrinsic motivation. Scores reported on the intrinsic motivation to know revealed no statistically significant differences between the two groups of students. Students also revealed no statistically significant difference on the subscale of intrinsic motivation to accomplish. The third subscale of intrinsic motivation, intrinsic motivation to experience pleasure or stimulation revealed no statistically difference between the two groups.

**Research Question 2**

Findings on the second research question, do academically prepared students report greater extrinsic motivation than academically unprepared students, revealed no statistically significant difference between the two groups. Scores on the subscales of extrinsic motivation revealed no statistically significant difference between the two groups of students on extrinsic motivation identification. However, results from the subscale of extrinsic motivation introjection revealed a statistically significant difference where the students in the academically unprepared group reported higher scores in extrinsic motivation introjection than academically prepared students.

**Research Question 3**

The third research question, do academically prepared students report less amotivation than academically prepared students, revealed no statistically significant difference between the two groups of students. Amotivation is the degree to which students see little if no relation between their effort and academic success. Students who report high scores on amotivation generally state that they do not know exactly why they go to college.

**Research Question 4**

Results from the fourth research question, is there a relationship between motivational levels and grade point average (GPA), revealed mixed results. High scores reported on intrinsic motivation to know, intrinsic motivation to accomplish, and intrinsic motivation to experience stimulation revealed no statistically significant correlation with GPA. High scores on extrinsic motivation-identification and extrinsic motivation-introjection revealed no statistically significant correlation with GPA. However, extrinsic motivation-external regulation reported a statistically significant negative correlation with GPA. Using the scale of amotivation, a statistically significant negative correlation was found with GPA. Finally, combined scores on total intrinsic motivation and total extrinsic motivation revealed a statistically significant positive correlation with GPA.

**Other Findings**

Results to determine the strongest predictors of academic achievement or term GPA revealed that high school GPA is the strongest predictor of college term GPA. The second factor used to predict GPA was number of preparatory courses in which the student was enrolled. The additional factor of number of preparatory courses added to the factor of high school GPA increased the strength of the regression equation. However, the third factor, motivational level, did not increase the strength of the regression equation.

## Conclusions

It is apparent from this study that motivation does play a part in students' academic achievement and that students who are poorly prepared for college study are as motivated to pursue postsecondary as their academically prepared counterparts. The

present study was most concerned with determining if there were differences of motivation with regard to the two different groups of students. Results indicate that both groups of community college students have similar desires to attend postsecondary education and, as such, should be treated similarly. Although limitations exist in the present study, the findings of similar levels of motivation in academically prepared and academically unprepared community college students provides support for the community college mission of remedial education in that these unprepared students' desire for education is just as strong as academically prepared college students' desire.

Results of this study show that when students have an internal rationale or reason for attending college, their academic achievement is higher than students who have an external rationale or reason for attending college. This is consistent with Tinto's (1975), and Terenzini, Lorang, and Pascarella's (1981) findings of student goal commitment and academic achievement and it also establishes reason for concern about the impact of rewards or punishments on academic achievement. Both of these findings on goal commitment indicated that students who exhibited a strong commitment to their goals and a commitment to the institution they attended had higher graduation rates, higher retention rates, and greater academic achievement. Results of the present study indicate that there is a positive relationship between intrinsic motivation and academic achievement. These results are consistent with findings from Page and Mukherjee (2000), Tuckman (1996), Dweck (2000), Cross (2001) and Miller, DeBacker, and Green (1999). These studies and the present study confirm that students who report an intrinsic desire for attending college perform better in their academics than students who profess extrinsic desires as their reasons for attending college.

With regard to the motivation continuum of intrinsic motivation, extrinsic motivation, and amotivation, the study revealed that students who reported higher scores on overall intrinsic motivation also achieved higher GPAs than those students whose highest motivation scores were related to extrinsic motivation. This statistically significant difference reveals that intrinsically motivated students, those who pursue postsecondary education for reasons to know, to achieve, and to experience stimulation or pleasure should academically out-perform those students who pursue postsecondary education due to external reasons. Students who reported their reasons for attending

college were “because I experience pleasure and satisfaction while learning new things,” “for the pleasure I experience while surpassing myself in my studies,” “for the pleasure I experience when I discover new things never seen before,” “for the pleasure that I experience while I am surpassing myself in one of my personal accomplishments,” “for the pleasure the I experience in broadening my knowledge about subjects which appeal to me,” “for the satisfaction I feel when I am in the process of accomplishing difficult academic activities,” “because my studies allow me to continue to learn about many things that interest me,” and “because college allows me to experience a personal satisfaction in my quest for excellence in my studies” reported higher first-term GPAs than students who reported reasons for attending college that were associated with extrinsic motivation.

Term GPAs for extrinsically motivated students in the study were lower than for those students who indicated they were more intrinsically motivated to attend college. Extrinsic motivation statements ranged from “because with only a high school degree I would not find a high-paying job later on,” to “in order to obtain a more prestigious job later on,” to “because of the fact that when I succeed in college I feel important,” to “because this will help me make a better choice regarding my career orientation.” These statements reveal a desire to achieve based on the tangible rewards students receive by attending college. The results of this study indicate that students who are motivated report greater academic achievement that those who do not state a rationale for attending college. These results also show that those students who indicate a desire to challenge themselves and to learn academically out-perform those who want to go to college to compete with other students.

Another result from this study indicates that there are relationships between amotivation and GPA and extrinsic motivation-external regulation and GPA. Higher scores on items associated with amotivation such as “I don’t know; I can’t understand what I am doing in school,” and “I can’t see why I go to college and frankly, I couldn’t care less” are negatively correlated with GPA. This statistically significant finding reveals that if a student is simply going to college because it is the next step after high school and he or she does not internalize a reason for postsecondary education, the student is at a higher risk for achieving at a lower level than those students who have a

rationale for attending college. Although this may seem to be an obvious conclusion, it may have substantial ramifications for colleges. In assisting in the development of clear student goals for educational pursuits orientation leaders and first-year experience course instructors could use results from motivational assessments such as the AMS-C to counsel students who record high scores on amotivation and facilitate the students' understanding of behavior that can lead to future academic difficulties and the long-range impact of exhibiting behavior that is consistent with amotivation and ultimately an unsuccessful college career.

Community colleges could use motivational assessment data with students who fall below college standards of academic progress and provide intervention with students who are placed on academic probation or academic suspension. This assessment could provide another dimension for personnel involved in academic suspension appeals to help students realize the need for commitment to their academic pursuits. Another use of assessing a student's motivational level could be with regard to financial assistance. Financial aid officers could implement the use of an instrument such as the AMS-C in their appeals process for students who have fallen below academic standards to receive federal financial assistance. Scholarship offices could also use motivational assessments to gauge student commitment to educational pursuits thereby adding another dimension to the scholarship award process.

With regard to the negative correlation between GPA and extrinsic motivation-external regulation, students who reported high scores on items such as, "because I want to have 'the good life' later on" and "in order to obtain a more prestigious job later on," tended to have lower term GPAs. Although these students are motivated to attend college, they do not internalize their reasons to pursue higher education and on the AMS-C motivation continuum fall close to amotivated students. The self-determination theory that Deci and Ryan (1985) advanced is characterized by a continuum of motivation that ranges from intrinsic motivation to extrinsic motivation to amotivation, with the subcategory of extrinsic motivation-external regulation being the final extrinsic motivation subcategory on the continuum before progressing to amotivation. Results of the present study indicate that students who are motivated by a rationale that is an unspecified, nebulous future reward may not be as academically successful as those

students who see an immediate intrinsic motivation to achieve. This result indicates the need for students to identify clear, specific goals for their future thus pursuing a clear academic path for future.

Results from this study indicate that there is little difference between academically prepared community college students and academically unprepared community college students with regard to their overall motivation to pursue postsecondary education. However, a surprising result was that academically unprepared students show significantly higher scores on the extrinsic motivation-introjection subscale than their academically prepared counterparts. High scores on the introjection subscale indicate that academically unprepared students have a stronger propensity than their academically prepared peers to internalize external demands made upon them. Although this outcome was not expected it is understandable when one takes into consideration the continuum of the AMS-C. Deci and Ryan (1985) categorized motivation on a continuum that ranges from amotivation to intrinsic motivation to know. Within the continuum, extrinsic motivation-introjection is one step closer to intrinsic motivation than extrinsic motivation-external regulation. At this point on the motivation continuum students begin to recognize the relationship between effort and outcome and thus begin to exhibit academic behaviors that are accepted as being academically productive, such as reading assignments, completing homework, participating in projects, and studying for tests. The students exhibit this type of behavior because they understand that the behavior should result in achieving their academic goals. It is important to understand that this type of behavior is exhibited not because the student enjoys the process or is intrigued by learning but because he or she understands the association between the effort and the outcome.

Finally, results from the study indicate that the strongest predictor of academic achievement is high school GPA. The strength of this predictor increases when number and level of preparatory courses is added to the equation. Not surprisingly, it can be concluded from this finding that students who perform at a low level in high school may also be those students who are required to take a greater number of preparatory courses at a lower level than those students who reported higher high school GPAs.

The results of this study indicate that there is little motivational difference between academically prepared students and academically unprepared students. Both groups of students report similar rationales for attending college. This indicates that academically unprepared students in this study have desires to attend college and pursue postsecondary education and have a need for a college education. Indications from this study show that the desire for academic pursuit is as meaningful for academically unprepared students as it is for academically prepared students.

## Limitations

It is important to note the limitations of this study and the implications that may not be relevant for all community college students. The first thing to consider is that this study was conducted at one community college in Northwest Florida and consisted of a small sample size. The small number of academically prepared students, n=84, and the small number of academically unprepared students, n=151, are not representative of all students. Another consideration to take into account is that the academically prepared group of students were identified by being recipients of a Bright Futures Scholarships. These students must maintain a cumulative college GPA of 3.0 for the Medallion Scholarship and 2.75 for the Merit Scholarship. This GPA requirement for renewal of the scholarship may be considered an extrinsic motivational tool for these students because of the financial reward that is tied to their GPA, whereas other students who may be academically prepared to attend college but not Bright Futures Scholarship recipients and may not have such a strong external reward attached to their cumulative GPA.

Two other factors must also be considered when reviewing the results of the study. One consideration is that, although all participants were first-time-in-college (FTIC) students, the study only surveyed students who were recent high school graduates. Not all students who pursue higher education at the community college are high school graduates. Some students who enter the community college are Graduate Equivalency Diploma (GED) recipients who never graduated from high school. Students who received a GED were not included in the study because the researcher's intent was to control for as many variables as possible. Because the Bright Futures Scholarship recipients are required to be high school graduates, it was reasonable to include only those students who had earned a high school diploma. Another factor to consider is that all students

surveyed had graduated from high school the year before entering college. Demographic data from community colleges across the nation show that more and more adult students are attending community colleges (Cohen & Brawer, 2003) and this group of nontraditional age students was not included in the study.

Indicators for academic achievement used in the study were first-term GPAs of all students. Using only one academic term limited the researcher from gaining a more in-depth or long-term perspective on how motivation affects academic achievement over a student's academic career. These limitations must be considered when considering the indications from this study. However, results from the study do indicate that further research could enhance the current body of literature available for studying the impact motivation has on postsecondary academic achievement.

Another limitation of the study is the fact that the academically unprepared group of students took developmental, non-college-level courses to remediate deficiencies in at least one area: reading, English, or mathematics. Although all students took courses that were proper for their academic level, the academically unprepared group of students took courses that reflected the students' different levels of preparation. However, these academically unprepared students also may have taken college-level courses in disciplines not requiring placement in college-level reading, English, or mathematics.

## Indications for Community Colleges

Results from this study offer some options for community colleges to consider using when attempting to enhance student academic achievement. Colleges could survey FTIC students during orientation sessions using the AMS-C and use the results in a myriad of ways. Colleges could work with students to develop individual education plans based on students' academic preparation, academic motivation level, and academic major. Because a negative correlation between extrinsic motivation-external regulation and GPA and a negative correlation between amotivation and GPA existed in this study, it might be a challenge for colleges to work with students who score high on these two categories on the motivation continuum and explore their reasons for attending college. The challenge would be to help these students understand the impact that their attitudes toward attending college have on their academic success.

An individual education plan for students could be used with the advising process where students work with college personnel to devise their academic and career paths. Using a motivational assessment would provide academic advisors with more in-depth information to aid in the creation of the student's academic career plan and make the advising process more meaningful for both advisor and student. This would also aid the advisor and student in the process of setting realistic, attainable goals with regard to academic and career plans.

Another endeavor that colleges could implement with students who report high scores on the amotivation scale on the AMS-C would be to conduct career and college planning sessions with these students. These sessions could be held as special out-of-classroom workshops developed by student affairs personnel. Another approach could be to infuse the current college curriculum with more career and college planning components, such as course objectives being linked to future career applications. Students who score high on amotivation do not realize the connection between effort and results and linking course objectives to actual career applications could aid in their understanding this link.

An implication of intrinsic motivation being positively correlated with academic achievement is useful for community colleges to establish the concept of discovery as a component of all courses, remedial and college-level. It would seem that developing stronger intrinsic motivation to know, to achieve, and to experience stimulation in all course and program outcomes would enhance academic achievement. However, findings from this study indicate that this may also be achieved by decreasing the emphasis on extrinsic motivators, namely external regulation. By simply developing the connections between effort and outcome, community colleges can help establish positive motivational concepts for students.

Also, student affairs and developmental studies personnel can utilize the results that indicate that academically unprepared students are not any less motivated to pursue postsecondary education than their academically prepared counterparts. This finding could be helpful for academic advising and classroom instruction because it indicates that just because these students may not be academically prepared for college-level study, they are motivated to attend college and pursue a college career. The results may help

convince college personnel who are skeptical about developmental education that academically unprepared students are as deserving of pursuing a college education as those students who are academically prepared.

## Recommendations for Further Study

Although there are some limitations of the study, results indicate that there is ample opportunity for further study of motivation and its impact on academic achievement and postsecondary education pursuit. One implication that needs further study is the area of students' poor academic progress in college and the assessment of their motivation for continuing college. The commitment to continue pursuing postsecondary education for students whose academic performance is below an institution's standards of academic progress may indicate the need for further measures to be taken by an institution such as career assessment and development, goal development, and the possibility of requiring academically unprepared students to attend a first-year experience course designed to aid them in the development of skills and behaviors associated with academic success.

Another implication for further study is to address the motivational levels of nontraditional students and students who received a GED for entry into postsecondary education and assess their reasons for attending postsecondary education. Because of the strength of high school grades predicting subsequent college grades it would be noteworthy to ascertain if the lapse of time between high school graduation and college attendance has had a positive or negative impact on student's academic performance. As for students who received a GED instead of high school diploma, the study of their motivational level could have implications for GED preparation programs.

Results from the study indicate that the strongest predictor of academic achievement is high school GPA. The strength of this predictor increases when number and level of preparatory courses is added to the equation. These results could be taken into account for the need of mandatory college success courses for students who achieved at a low high school GPA and are required to begin their college career taking the lowest level course in English, reading, and mathematics.

Further research should also be pursued to address motivation for attending college and its impact on retention and degree completion. Do students with different

motivations for attending college report differing retention rates? Do students with different motivations for attending college report differing graduation rates? Also, do students with differing motivations for attending college report differing rates of pursuing graduate study? Because retention rates and graduation rates are tangible outcomes it may be more meaningful for postsecondary institutions to ascertain the impact motivation has on these two measures.

The study revealed a difference in academic achievement among academically unprepared male and female students, female students recorded higher GPAs than male students. Also revealed in the study was the difference in academic achievement among academically unprepared Caucasian and African-American students, Caucasian students recorded higher GPAs than African-American students. Although this study did not assess motivational differences between these groups of students, other studies (Cokley, et al, 2001; Vallerand, et al, 1992a) reported conflicting results when assessing motivational differences. Differences in motivation among these groups of students could be of value for community college faculty, administrators, and support personnel.

One final area for further study would be the indications of student engagement and student satisfaction and if there is a relationship between these measures and academic motivation. Are students who report higher intrinsic motivation scores more engaged in their academic pursuit than students who report higher extrinsic motivation scores? Are students who report higher intrinsic scores more satisfied with their academic preparation than those students who report higher extrinsic motivation scores? If, as Cross (2001) stated, motivation is at the heart of academic pursuit, it would be noteworthy to ascertain motivation's impact on these indicators of academic value.

## Concluding Remarks

It is reasonable to believe that all students are committed to their college career and pursuing a postsecondary education. It is helpful to realize that some college students do not possess a clear understanding of the impact postsecondary academic achievement can have on their futures. Can colleges influence a student's desire to attend and achieve in college? High school students who possess strong academic skills are highly sought after for college study. They have proved that they can achieve at a high level and research, including this study, indicates that academic achievement in high school is

predictive of collegiate academic achievement. The challenge is to encourage those students who do not initially possess strong academic skills in high school to develop or remediate their academic skills through special coursework at community colleges and achieve their academic goals. Students who begin college study without rudimentary skills in English, mathematics, and reading can achieve and, as shown by this study, possess similar motivations to attend college as their academically prepared counterparts.

Community colleges across the nation have a role to play in the education of those students who did not graduate from high school with strong academic skills for postsecondary education. This mission of developing skills for these students is where community colleges can be the institutions of opportunity for all students regardless of the students' academic preparation. A challenge for community college personnel is to communicate the connections between effort and learning, effort and academic achievement, effort and goal attainment.

# APPENDIX A

## ACADEMIC MOTIVATION SCALE (AMS-C)

## COLLEGE VERSION

## WHY DO YOU GO TO COLLEGE?

Using the scale below, indicate to what extent each of the following items presently corresponds to one of the reasons why you go to college.

| **Why do you go to college?** | Does not correspond at all | | Corresponds a little | | Corresponds moderately | | Corresponds a lot | | Corresponds exactly |
|---|---|---|---|---|---|---|---|---|---|
| Because with only a high school degree I would not find a high-paying job later on. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| Because I experience pleasure and satisfaction while learning new things. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| Because I think that a college education will help me better prepare for the career I have chosen. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| For the intense feelings I experience when I am communicating my own ideas to others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| Honestly, I don't know; I really feel that I am wasting my time in school. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| For the pleasure I experience while surpassing myself in my studies. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| To prove to myself that I am capable of completing my college degree. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| In order to obtain a more prestigious job later on. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| For the pleasure I experience when I discover new things never seen before. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| Because eventually it will enable me to enter the job market in a field that I like. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| For the pleasure that I experience when I read interesting authors. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| I once had good reasons for going to college; however, now I wonder whether I should continue. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| Because of the fact that when I succeed in college I feel important. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| Because I want to have "the good life" later on. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |

**Why do you go to college?**

| **Why do you go to college?** | | | | | | | |
|---|---|---|---|---|---|---|---|
| For the pleasure that I experience in broadening my knowledge about subjects which appeal to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because this will help me make a better choice regarding my career orientation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| For the pleasure that I experience when I feel completely absorbed by what certain authors have written. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I can't see why I go to college and frankly, I couldn't care less. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| For the satisfaction I feel when I am in the process of accomplishing difficult academic activities. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| To show myself that I am an intelligent person. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| In order to have a better salary later on. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because my studies allow me to continue to learn about many things that interest me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I believe that a few additional years of education will improve my competence as a worker. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| For the "high" feeling that I experience while reading about various interesting subjects. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I don't know; I can't understand what I am doing in school. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because college allows me to experience a personal satisfaction in my quest for excellence in my studies. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I want to show myself that I can succeed in my studies. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Consent to Participate in Study.** Return of this questionnaire constitutes the participant's consent to participate in the study. This agreement includes the researcher's commitment that all results will remain confidential. The reported Social Security Numbers will be destroyed upon completion of the study.

Thank you for your time and effort in participating in this study.

Used by permission of Robert J. Vallerand.

## APPENDIX B

## HUMAN SUBJECTS COMMITTEE APPROVAL

Florida State
UNIVERSITY

Office of the Vice President
For Research
Tallahassee, Florida 32306-2763
(850) 644-8673 · FAX (850) 644-4392

**APPROVAL MEMORANDUM**
Human Subjects Committee

Date: 9/22/2003

**Mary Melissa Lavender**
**105 Allen Ave., #61**
**Panama City, FL 32401**

Dept.: **Educational Leadereship and Policy Studies**

From: **David Quadagno, Chair**

Re: **Use of Human Subjects in Research**
**A comparison of Academic Motivitation of Academically Prepared and Academically Unprepared Community College Students**

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be exempt per 45 CFR § 46.101(b) 2 and has been approved by an accelerated review process.

**The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.**

If the project has not been completed by **9/21/2004** you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000446.

Cc: Beverly Bower
HSC No. 2003.474

## APPENDIX C

## LETTER TO PARTICIPANTS OF THE STUDY

Melissa Lavender
105 Allen Ave. #61
Panama City, FL 32401
September 25, 2003

Dear Student:

In my work with students at Gulf Coast Community College I have become increasingly interested in why students attend college and why some students seem more motivated to study and do well in college than others. As a component of pursuing my doctorate in higher education at Florida State University, I am presently conducting a study to assess academic motivation in community college students under the direction of Dr. Beverly Bower in the College of Education and I need your help. You have been selected to participate in this study to assess academic motivation among Gulf Coast Community College students.

Your participation in this study is extremely important and will aid in the knowledge base for understanding why students pursue higher education and if this has an impact on academic achievement. Answering the enclosed questionnaire will also give you a perspective of why you have chosen to pursue higher education and will, perhaps, give you some ideas to ponder as you continue your education.

Upon receipt of your questionnaire, I will categorize the results with others in the study to determine why students go to college. From these groupings, the director of student services will access grade point averages, remove all references to social security numbers, and report individual grade point averages. I will then calculate student grade point averages for each category of motivation revealed. Please be assured that your individual grade point average will never be reported and will only be used to find a group average. All identifiable numbers, names, or descriptions will be destroyed after coding and individual results will be kept confidential to the extent allowed by law.

It is important that you report your social security number on your questionnaire so that the director of student services at Gulf Coast Community College may access cumulative grade point averages from the college's student database at the end of the term. The college's student database is currently accessible by social security numbers and the only information that the director of student services will retrieve is the term grade point average.

You must be 18 years old or older to participate in this study. Completing and returning the questionnaire will be considered your consent to participate. To participate in the study, simply complete the questionnaire as directed and return the completed questionnaire in the enclosed stamped envelope.

If you have any questions concerning the research study, please call me at 850-747-3211 or e-mail me at MMmlav@aol.com. You may also contact Dr. Bower at Florida State University College of Education at bower@coe.fsu.edu.

Please return the completed questionnaire by October 15, 2003. Participants who return completed questionnaires by October 15, 2003, will have their names entered in a drawing for five chances to win $50.00. The drawing will be held November 1, 2003 and winners will be notified via mail. Immediate notification is required if at anytime you opt to withdraw from the study. Withdrawal from the study after receipt of the completed questionnaire by October 15, 2003 will not remove your name from the pool of participants in the drawing.

Let me assure you that your participation in the study will be kept confidential to the extent allowed by law and that individual results from the enclosed questionnaire will not be reported in any way. Thank you for your willingness to participate in this study and good luck in the drawing!

Sincerely,

Melissa Lavender
Doctoral Candidate
Department of Educational Leadership and Policy Studies
Florida State University

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## BIOGRAPHICAL SKETCH

Mary Melissa Lavender was born August 1, 1960 in a small town in northwest Mississippi. She was graduated from the University of Mississippi in 1983 with a Bachelor of Arts degree in journalism. After working for her family trucking firm, she returned to academic study in 1987 to pursue her Bachelor of Science degree in psychology from the University of Southern Mississippi. She then attended the University of Mississippi where she received her Master of Education degree in educational psychology in 1989. She worked as a high school guidance counselor for eight years in two schools in northwest Mississippi.

In 1996 she moved to Panama City, Florida where she began work as a counselor at Gulf Coast Community College. At Gulf Coast, Lavender was later promoted to coordinator of counseling and has served director of student services since 2002. She earned her doctorate in higher education in the summer of 2005.