The Relationship Between Academic Self-Efficacy and Resilience to Grades of Students Admitted under Special Criteria

William E. (William Eddie) Hudson
THE RELATIONSHIP BETWEEN ACADEMIC SELF-EFFICACY AND RESILIENCE TO GRADES OF STUDENTS ADMITTED UNDER SPECIAL CRITERIA

By

WILLIAM E. HUDSON JR

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The members of the Committee approve the dissertation of William E. Hudson Jr. defended on June 14, 2007.

_________________________
R. William English
Professor Directing Dissertation

________________________
Dale Lick
Outside Committee Member

________________________
Jane Burkhead
Committee Member

________________________
Gary Peterson
Committee Member

Approved:

_____________________________________
Pamela Carroll, Chair
Department of Childhood Education, Reading, and Disability Services

The Office of Graduate Studies has verified and approved the above named committee members.
This dissertation is dedicated to those individuals who inspired me through their lives and remain with me in spirit. It is also dedicated to those who will travel the path after me to serve as an encouraging beacon letting all know that with faith and perseverance anything is possible.

William E. Hudson, Jr.
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ABSTRACT

Success and contemporary socioeconomic status (SES) is tied to academic achievement. Typically, the more education an individual has the higher their SES. Individuals with less than a high school degree are at high risk to lower SES. Far fewer first-generation students and students with documented learning disabilities go to college. Those that do pursue post secondary education graduate at lower rates and take longer than regularly admitted students. Employment and earnings are highly associated with academic achievement.

This exploratory study examined two predictor variables (self-efficacy and the characteristics of resiliency) with respect to academic performance of college students admitted to college under special criteria. A sample of 117 college students (89 women and 28 men) at a large Research I university in the southeastern United States participated in the study, and completed the Perceived Academic Self-efficacy Scale (GSE; Jerusalem & Schwarzer, 1992) and the Personal Resilience Questionnaire (PRQ; Connor, 1992). One hundred six students were registered with the Center for Academic Retention and Enhancement (CARE) and eleven students were registered with the Student Disability Resource Center (SDRC). The major findings were that: self-efficacy combined with parental involvement was found to be an important predictor on the academic performance of college students admitted through special criteria.
CHAPTER I
INTRODUCTION

Statement of the Problem

The transition from high school to post-secondary education can be a very challenging time for all young adults. This emancipation launching period is one of excitement, intrigue and adventure; while also being emotionally charged with frustration, confusion and discouragement.

Establishing positive self-efficacy and resilience can have a significant effect on whether or not college students are retained and graduate (Bandura, 1997, Costello & English, 2001, Allen, 1999). The aggregate outcome of graduation from college has an impact both socially and economically on society. The success of young adults during this time period will impact their ability to achieve an independent lifestyle.

College success, including graduation, is even more difficult if a student has a learning disability or is a member of a non-college educated family (first-generation). Research shows that learning disabilities identified in childhood continue to affect academic, social and vocational functioning into adulthood (Costello & English, 2001). In contrast first generation college students have difficulties in academic preparation, educational aspirations and attainments in the college environments.

Significance of the Research

The focus of this research is to determine of relationships between self-efficacy and resilience in respect to academic performance. There are several benefits to studying the aforementioned problem. The results from the research may: (1) Influence educational/school support services in the retention of students; (2) Provide useful information to middle and high school programs dedicated to the transition of students to college and help foster positive educational continuance; (3) Help parents assist students with learning disabilities in their college degree pursuit; and (4) Assist universities in establishing more effective orientation practices and early advisement.

Substantial increase in college enrollment has made the issue of student retention important in post-secondary education thus making the implications of this research professionally and socially significant. First-generation college student enrollment in higher education is increasing at drastic rates. Concerns with their educational aspirations and attainments become increasingly more significant. Numerous studies have been conducted that focused on understanding self-efficacy and resilience in children and youth (Alessandria & Nelson, 2005, Catterall, 1998; Allen, 1999). The studies indicate self-efficacy and resilience are protective characteristics that encourage individuals to persevere through difficult situations. However, research concerning the self-efficacy and resiliency in college students admitted under special criteria is limited. Some studies have been done but further research is necessary to assist this population of youth. These variables were chosen to assist this population with the transition from high school to college. In many instances the academic course load is not the determining factor in whether a student is retained or not (Chickering & Reisser, 1993). The ability to seek support and establish relationships are very important factors in students acclimating to the college environment and making a successful educational transition.
Focus of the Study and Research Questions

This study was an effort to ascertain influential factors on the academic performance of college students admitted under special criteria. The purpose was to examine the relationships between self-efficacy and resiliency with respect to academic performance of college students admitted under special criteria. The research generated useful information related to the development of counseling, prevention, and intervention strategies for college students admitted under special admission criteria.

The general research question addressed by this study was: What is the extent to which self-efficacy and resilience have an effect on academic performance of college students admitted under special criteria? More specifically, the following questions were asked:

1) What are the relationships between characteristics of resiliency and academic performance in college students admitted under special criteria?
2) What are the relationships between academic self-efficacy and academic performance in college students admitted under special criteria?
3) What is the relationship between use of services and academic performance of college students admitted under special criteria?
4) What is the relationship between perceived parent involvement in education and the academic performance of college students admitted under special criteria?
5) What are the contributions of each of these variables to academic performance in college students admitted under special criteria?

Operational Definitions

There are nine terms that pertain to the foundation of this research which requires operational definitions. The terms used repeatedly throughout the research study were self-efficacy, resilience, academic performance, first-generation, college student, good academic standing, leaning disability, college students with learning disabilities and special admission criteria.

Self-efficacy refers to an individual’s perception of his ability to organize and execute actions required for designated types of performances (Bandura, 1986). This can include one’s effort expenditure, persistence, thought patterns and emotional reactions when confronted by circumstances of life.

Resiliency consists of a cluster of personality characteristics which implies a positive outlook on life and about self, flexibility in thoughts and in social relations, focused, organized and proactive (Connor, 1992).

Academic performance refers to the overall academic grade point average of college students enrolled at the institution.

First-generation refers to a student whose mother and father did not graduate from a four year university.

College student is an individual who is enrolled either full-time or part-time at a four year college or university.

Good academic standing refers to maintaining a cumulative FSU grade point average of C or 2.0.

Learning disability is a general term that refers to a group of disorders that results in significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities (Costello & English, 2001). Issues relating
to social perception, interaction and regulatory behaviors may coincide with learning disabilities, but do not imply that a learning disability exists.

**College students with learning disabilities** are individuals who provided documentation verifying the presence of a learning disability and requested assistance relative to their learning disability from the Florida State University Student Disability Resource Center.

**Special admission criteria** refers to college admission based on specific criteria in addition to grade point average, standardized test score, and class rank (e.g. first generation).

**Limitations/Delimitations**

Limitations of this study are conditions beyond the control of the researcher, which may place restrictions on the conclusions and their application to other situations. This study was limited by the psychometric properties of the research instruments, the age range of the sample, subject’s honesty on demographic questionnaire, personal characteristics of volunteer subjects, and the level of language development within the sample.

The Perceived Self-efficacy Scale and the Resilience Questionnaire have limited validity regarding first-generation college students or those who have learning disabilities because these instruments were not normed on this population. Recruitment of students was promoted by offering an incentive. The incentive was an attempt to motivate students to participate.

Delimitations of this study are the boundaries set by the researcher. This study was limited to students who attended a Southeastern university during the 2006-2007 academic year and were registered participants with the university’s special service programs for students with documented diagnosed disabilities and retention needs.

**Remaining Elements of the Study**

Chapter two provides a review of books, journal articles, dissertations, and other works that were related to the study. It contains an exposition and analysis of related literature in light of current research. Chapter two also contains characteristics and significance of resilience and self-efficacy in first generation college students with and without learning disabilities.

Chapter three presents the methodology and provides details of the research process. The methodology included the identification of the population, participant selection, identification of the instrument, data collection procedures and a brief description of the data analysis.

Chapter four presents the findings of the study and includes tables that summarize the quantitative descriptive data. Chapter five interprets and discusses the study’s findings in terms of major implications for future research and the delivery of support services to college students admitted under special admission criteria. Supplemental materials are included in the appendices and references.
CHAPTER II
REVIEW OF THE LITERATURE

This chapter reviewed the various facets of the question, what is the extent to which self-efficacy, resiliency, and selected background variables have an effect on academic performance of college students admitted under special admission criteria? Self-efficacy was interpreted through social learning theory initially proposed by Albert Bandura in 1977 and then revised by Bandura in 1986. Resilience was interpreted through the definition proposed by Daryl Conner and Organizational Developmental Research in Change Resilience a Cognitive Resource Approach (1992). Emphasis of this chapter was placed on the literature relevant to Bandura’s theory, Conner’s theory, the population studied, and the rationale for exploring the effect on academic performance of college students admitted under special admission criteria. The literature review that pertains to standardized measures of self-efficacy and resilience was summarized in Chapter III because it links most closely to methodology.

The procedure used to identify pertinent literature was based on computer assisted searches of various educational databases. These sources included ERIC and PsycINFO. Within ERIC, the Current Index to Journals in Education (CIJE) and Resources in Education (RIE) were searched. A total of 400 sources were identified and reviewed for purposes of this study. Both primary and secondary sources relevant to this study was reviewed.

This chapter was divided into five areas relevant to the questions of this study. They were: (1) definition and significance of self-efficacy in adolescence and young adults; (2) evolution of Bandura’s social learning theory; (3) definition and significance of resilience in college students with learning disabilities; (4) definition and impact of academic performance of college students with learning disabilities; (5) selected demographic variables related to academic performance; and (6) summary of the literature related to this study.

Self-Efficacy

The period of adolescence through young adulthood is regarded as a time of extensive challenge and turbulence. This transitional period involves very substantial physiological and psychological growth. Throughout this stage of life many dilemmas may occur affecting the development of self-efficacy, including the search for identity, intimacy, emancipation and adjustment to unique challenges like disability. During adolescence and young adulthood, school and social values are closely examined. Educational challenges take center stage and the ability to think in intellectual terms allows for expression in a more indirect manner. This section discusses the (1) definition of self-efficacy; (2) significance of self-efficacy and (3) self-efficacy and social learning theory.

Definition of Self-efficacy

According to Bandura (1986) self-efficacy refers to an individual's perception of his ability to organize and execute actions required for designated types of performances. A related definition by Jerusalem and Schwarzer (2000) is that self-efficacy is the belief that one can perform novel or difficult tasks, or cope with adversity in various domains of human functioning. Bandura (1977) indicated that self-efficacy theory is based on the principle that cognitive events are induced and altered by the experience of effective
performance. People’s self-efficacy beliefs are expected to vary depending on the particular activity domain or situation under consideration.

Lent, Brown, and Hackett (1994) state that self-efficacy is the perception that influences one's choice of activities and environments, as well as one's effort expenditure, persistence, thought patterns, and emotional reactions when confronted by obstacles. What variables play a significant role in the development of self-efficacy? Parents, peers, environment, social support, health, disability and educational attainment all have significant effects on the development of self-efficacy in adolescents and young adults.

Significance of Self-Efficacy

The significance of self-efficacy is in its ability to affect the capability of adolescents to realize desired and undesired futures (Bandura, 1995). The capacities to produce valued outcomes and to prevent undesired ones provide powerful incentives for the development and exercise of personal control. A durable sense of self-efficacy requires experience in overcoming obstacles through perseverance and effort (Bandura, 1995).

Self-efficacy also plays a key role in the self-regulation of motivation. Motivation is cognitively generated in individuals. People motivate themselves, guide their actions, and anticipate by the exercise of forethought. They form beliefs about what they can do or cannot do and then anticipate probable outcomes of prospective actions. They set goals for themselves and plan courses of action designed to realize desired futures. These beliefs are acquired and modified via four primary sources of information or types of learning experiences: personal performance accomplishments, vicarious learning, social persuasion and physiological states (Gecas, 1989).

Personal attainments are seen as the most influential source of information. Outcome expectations and short-term goals specify areas in which success tends to nourish self-efficacy while continuous failures lower self-efficacy (Lent, Brown & Hackett, 1994). Lent et al. (1994) defined outcome expectations as an adolescent’s belief about the consequence or outcome of a particular behavior. Adolescents and young adults can acquire outcome expectations through learning experiences similar to those that form self-efficacy.

Efficacy beliefs play a vital role in the development of self-directed lifelong learners in adolescents and young adults. Students’ belief in their capabilities to master academic activities affect their aspirations, level of interest in intellectual pursuits, academic accomplishments and how well they prepare themselves for different occupational careers (Holland, 1987). A low sense of efficacy to manage academic demands also increases vulnerability to scholastic anxiety (Bandura, 1995).

Students with learning disabilities often experience a multitude of difficulties throughout their academic careers (Borkowski, 1992). Specifically, they face problems in motivation attribution, self-esteem, and affective responses as well as limitations in strategic knowledge and self-monitoring that can negatively impact academics (Borkowski, 1992). Borkowski, Catt, Rellinger, and Pressley (1990) discussed an integrated model of achievement, focusing on two distinct dimensions: metacognition and affective factors. Metacognition encompasses self-knowledge of learning strategies and the ability to use this knowledge in an efficient and effective manner. The affective component focuses on feelings of self-efficacy with factors of motivation, locus of control, and personal attribution (Borkowski et al., 1990). A bi-directional relationship
exists between these factors and a low perception of self-efficacy and negative attributions frequently undermine academics (Butler, 1999; Butler & Poole, 2000). Limited protective factors that aid in resilience coupled with adverse experiences may serve to restrict and weaken academic performance. A low perception of self-efficacy and negative attributions frequently undermines academics (Butler, 1999). The link between learning problems and social-emotional difficulties is well documented, and both are associated with temperamental risk factors (Teglasi, Cohn, & Meshbeshar, 2004). Temperament refers to individual differences in biologically based dispositions for responding to and engaging with one’s surroundings, while developmental outcomes are the products of experiences as influenced by temperament in concert with other variables and the opportunities, challenges, and supports of the college student’s various contexts (Teglasi et al., 2004).

Self-Efficacy and Social Learning Theory

Self-efficacy theory, an extension of social learning theory (Bandura, 1977), delineates the cognitive factors that are likely to control whether or not people develop and exercise the mental and behavioral skills required to undertake difficult tasks, such as academic achievement in post secondary education. Bandura (1977) hypothesized that people have beliefs about their own abilities, which he calls “efficacy expectancies,” and beliefs about the contingencies operating in the environment, which he calls “outcome expectancies.” If students with learning disabilities believe they can develop the skills required to be successful with their academic and personal goals, they will persevere with education, training, and job seeking. If on the other hand, they believe that they either do not have or cannot develop the skills required or think developing the skills is uncertain to result in enjoyment and gainful employment, they are unlikely to persevere in pursuing the occupation. The importance of self-efficacy is recognizing that personal beliefs about skills, and the outcomes likely to accrue from using those skills, are better predictors of persons’ behavior (Bandura, 1986). Several intervention strategies are available for increasing self-efficacy. The following list highlights some of Betz’s (1992) recommendations of four prominent change approaches.

1. Performance accomplishments: expose individual to experiences with high probability of success. These might include workshops or assertiveness courses.
2. Vicarious or observational learning experiences: introduce learners to role models, preferably individuals similar to them (e.g. same ethnicity, gender, age, and disability) who work in a field they may be considering. Exposure to such learning experiences may be invaluable to the individuals as they challenge negative perceptions of learning disabilities. Books, videos and the Internet may be used as options when human models are not available.
3. Cognitive-emotional control: relaxation techniques, self talk and breathing exercises may be useful in this area. Teaching a client how to reduce anxiety allows the full potential of person’s abilities to be recognized. It also helps them focus on the task, not their feelings regarding the task.
4. Verbal persuasion/encouragement: Be the helpee’s cheerleader, support them and express belief in their abilities. These things allow the individual to feel validated, empowered, begin to set higher goals, and engage in feared experiences.

By using verbal persuasion, educators can provide the student with encouragement and support (Betz, 1992). In addition, the use of support groups is
effective in providing verbal persuasion, positive feedback, support and encouragement. Performance accomplishments are a strong source of efficacy information for strengthening social integration. The college campus may be large and require time for a new student to become familiar with the different organizations on campus. A student with a disability who has participated in activities or developed interests in high school may find similar interests in the college environment. If the individual’s advocate is knowledgeable about the clubs or groups on campus, they may direct the student with a disability to the clubs or groups that match the student’s interests. If the student becomes involved and participates in these campus organizations, the student may feel some success and perceive an increase in his ability to socially integrate. Vicarious experiences can be used by introducing the student to a peer who has successfully mastered the college environment. Very close demographic matching is not necessary for successful mentoring. If no actual role model is available, the use of videotape or articles written about individuals admitted to universities under special criteria achieving success in the college environment may be used. In addition, peer groups can be used to provide vicarious reinforcement. Peer or student support groups of college students admitted to universities under special criteria may allow the individual to observe other individuals achieve success (e.g., graduation, successful completion of final exams). These observations should reduce the individual’s perception that integration is not possible and also provide some strategies/techniques to use for social integration. Finally, behavioral approaches like systematic desensitization and relaxation methods may be used to address and reduce the individual’s anxiety and emotional arousal. Cognitive control techniques, like reframing, decision making, or meditations complement behavioral approaches and increase resiliency in students (Bandura, 1986).

Resilience

Resilience and intervention methods pertaining to resilience have stimulated research over the past two decades particularly with “at risk” youth (Masten, 2001, Hall, Spruill, & Webster, 2002). In order to survive in a diverse and changing environment, college students must learn how to successfully adapt to changes in family supervision, technology, information dissemination, peer culture, social interactions, expenses, income, and maximize their potential despite the many obstacles that may be encountered. Resilience and the ability to adapt can assist with the successful transition from high school to college (Hall, Spruill, & Webster, 2002). The following six sections discuss the (1) definition of resilience, (2) significance of resilience, (3) adaptation, (4) cognitive approach to adaptation, (5) resilience characteristics and (6) resilience enhancement.

Definition of Resilience

Daryl Conner is an expert in studying change. His study of resilience originated from the corporate world. Now, resilience characteristics are successfully used elsewhere to help organizations and individuals make transitions. He established Organizational Development Resources (ODR) to study “human resilience in organizational settings” (Conner, 1992) in 1974 in Atlanta, Georgia. ODR used information from different fields such as psychology, organizational behavior, and statistical analysis to thoroughly study resilience. According to Conner (1992), resilience is a critical component in dealing with change. He found that people who are resilient remain calm in the process of change, spring back after difficulties, and become stronger after change.
Different researchers in the field offer different definitions of resilience (Hall, Spruill, & Webster, 2002; Conner, 1992; Masten, 2001). Conner (1992) implies that resilience consists of a cluster of personality characteristics. He concluded that resilient people are positive about life and about themselves, flexible in thoughts and in social relations, focused, organized and proactive. These seven resilience characteristics will be discussed in detail later in this chapter. Luthar, Cicchetti, and Becker, (2000) defined resilience as a dynamic process encompassing positive adaptation within the context of significant adversity. Other researchers view resilience as “positive psychological adjustment” (Laird, 1995), the capacity to “thrive, mature, and increase competence” (Gordon, 1995), and “overcoming prediction of failure” (Catterall, 1998). It is obvious that the concept of resilience is very broad but should be conceptualized in terms or student adaptation. Thus, an exploration of Connor’s (1992) definition considering the personality characteristics and discussing the resilient individual who experiences successful outcomes despite adverse experiences will be presented. This study researched the relationships among resilience characteristics with respect to academic performance of college students with learning disabilities.

Significance of Resilience

Conner (1992) spent many years in the corporate world studying human response to change. His study was conducted in the U.S. initially, and later expanded to companies in other parts of the world. He found that resilience is an important factor in successfully implementing change. He reported that resilient people remain calm in the process of change, spring back after difficulties, and become stronger after change. In order to further study human responses to change and help companies to cope with change, he established Organizational Developmental Resources, Inc. (now Connor Partners). A theoretical based approach to resilience is the concept of psychogogic approaches to development or change. Psychogogic, or psychoeducational, approaches strive to strengthen the individual against the onsloughts of stress in order to avoid or prevent mental/emotional/behavioral disorder (Vash & Crewe, 2004)

Conner (1992) gave a good description of change in his book Managing at the Speed of Change. He noted that “Never before has so much changed so fast and with such dramatic implications for the entire world” (Conner, 1992, p.265). In today’s world, changes have intensified at the personal, organizational, national and global levels. As time goes on, the number of changes increase, the time to deal with change decreases, and the complexity of changes become greater. Knowledge expansion, population explosion and ideology conflict, for example, cause “the dramatic increase in the magnitude of the changes we now face” (Connor, 1992).

How do people cope with change? According to Conner (1992), people tend to exert control by at least anticipating the future. When expectations meet the perceived reality, equilibrium is reached; when expectations do not match the perceived reality, people have to use resources to make the adjustment (Wang, 2003; Hoopes & Kelly, 2004). Resources can consist of people, information, or strategies to make effective decisions that will positively impact their lives (Wang, 2003; Hoopes & Kelly, 2004). The adjustment process is called assimilation to change. Conner (1992) pointed out that assimilation, adjustment to change, may cause reduced intellectual energy, increased psychological stress and diminished physical stamina and health. Connor also underscored the fact that an individual only has a certain amount of assimilation capacity
available. Resilient people tend to increase their total assimilation capacity available while minimizing the quality of assimilation needed for an individual change (Conner, 1992; Hoopes & Kelly, 2004).

Adaptation

Change is a way of life in our society, and human adaptation, the ability to confront change in a way that maintains or enhances current levels of functioning (ODR, 1995) becomes a critical element in productive human existence. ODR (1995) described how human adaptation to external forces had been studied from two perspectives. From the “objective” perspective, advocated by Dohrenwend and his colleagues (as cited in ODR, 1995), external events were viewed as objectively measurable stressors which exert the same load on everyone. The “subjective” perspective is an individual’s own perception of an external event creating the burden for the person and influencing the person’s response. This view is advocated by Lazarus and his colleagues (ODR, 1995). Hence, adjustment to a change differs from person to person. ODR (1995) held that both perspectives contribute to the understanding of adaptation. Specifically, ODR (1995) noted that in order to study human adaptation, it is important to study both objective stimuli and subjective cognitive processes.

ODR (1995) summarized different categories of stressful events and outside stimuli. Stressful events can stem from different levels: self and family, national and global and community (Dimidjian, as cited in ODR, 1995). Stressful events can be sudden or progressive, common or unusual (Casella & Motta, as cited in ODR, 1995); or occur unexpectedly to people or be self-induced by people (Holmes and Rache, Epstein and Katz, as cited in ODR, 1995).

ODR (1995) also described that there are two kinds of cognitive processing: bottom-up and top-down. In the bottom-up processing, the brain synthesizes different information into a schema (ODR, 1995). In the top-down processing, the brain uses the existing schema to process information. Bottom-up processing consumes more energy than top-down (ODR, 1995). In adaptation to change, people use bottom-up processing, no matter what the external stimuli are.

ODR (1995) has summarized ways to measure adaptation outcomes. Successful adaptation outcomes can be measured by high performance and competence and/or avoidance of a range of symptoms. The maintenance of high performance is given special focus by ODR. Bryant (1995) gave a good description of the term performance when it is used to describe change and resilience characteristics. Performance refers to social, occupational, educational, or personal achievement (Bryant, 1995). Social performance is the establishment and maintenance of satisfying friendships and affectionate relationships while occupational or educational performance refers to the quality and quantity of defined task performance at work or at school (Bryant, 1995). Personal performance is the attainment of goals or maintenance of standards imposed on oneself. (Bryant, 1995; Hoopes & Kelly, 2004; Bandura, 1986).

Cognitive Approach to Human Adaptation

Kahneman (as cited in ODR, 1995) proposed a model of cognitive resource allocation in the study of human adaptation. According to this model, although individuals differ in the amount of cognitive resources (e.g., intelligence) they all have a limited amount available. People use different strategies or processes to allocate their cognitive resources to the tasks they face: some of the strategies are more efficient than
others (ODR, 1995). When individuals encounter an overload of tasks they can suffer negative emotions.

Edwards’ cybernetic theory (as cited in ODR, 1995) helps to explain how cognitive resources are allocated. When there are discrepancies between desire and perception, an individual is motivated to allocate resources to reduce the discrepancies (Wang, 2003). The size and importance of a discrepancy decide the motivation force, which in turn decides the amount of cognitive resources to be allocated. The discrepancy reducing process is called coping (Wang, 2003).

The two concepts of desire and perception of reality are important in understanding coping. People’s desire refers to any state or condition we consciously want (ODR, 1995). People’s desires are in hierarchical order with fundamental desires taking priority over other desires. Although people’s desire may be shaped by past experience and feedback from others, people do share some fundamental desires (e.g., self-related desires such as desires for control, for meaning and for self-realization) (Wang, 2003).

According to Edwards’ model, people’s perceptions may be influenced “by aspects of the physical and social environment, by personal characteristics, by social information, and by our cognitive construction of reality” (ODR, 1995, p.45). People’s perceptions of reality are subjective rather than objective. The more the discrepancies within desire and perception, the more important one attributes the discrepancies to be and the more resources are allocated to the goal of reducing the discrepancies amongst desire and perception (Wang, 2003).

Edwards’ theory also explains different coping strategies. In coping with discrepancies, one may alter perception, desires, or even ignore discrepancies. Moreover, one may make an effort to enhance well-being by participating in positive personal experiences unrelated to the initial desire, turning to drugs or alcohol, and other strategies aimed directly at negatively reinforcing well-being” (ODR, 1995). Successful coping leads to adaptation, while unsuccessful coping leads to negative outcomes. Successful coping may be influenced by several factors, many of which are within a person’s influence (Hoopes & Kelly, 2004). The study of resilience focuses on the study of individual characteristics that can lead to successful coping (ODR, 1995).

Resilience Characteristics

Conner (1992) defined resilience as “the capacity to absorb high levels of change while displaying minimal dysfunctional behavior.” Bryant (1995) defined resilience as the successful outcome of a process which is invoked by change. He further explained that when a change enters into a person’s life, the individual’s traits (e.g., optimism) and skills (e.g., time management) interact with environmental and situational factors (e.g., the necessity to relocate quickly and efficiently). This interaction produces behaviors that increase the likelihood of a successful adaptation to change (Bryant, 1995). He further explained that resilience is illustrated by the maintenance or improvement of social, occupational, and/or personal performance following some change in circumstances (Wang, 2003).

Resilience is a combination of traits that is manifested to various extents in different people instead of a single trait (Conner, 1992). Conner studied resilience characteristics by observing people’s reactions to change. By observing people’s response to change, Conner (1992) noted two orientations: type-D orientated—people
focus on the risk part of change, and type-O orientated—people focus on the opportunity part of change.

For type-D people, they are lacking of overarching sense of purpose in their lives and find it is difficult to reorient after disruptions (Hoopes & Kelly, 2004). Their tolerance to ambiguity is not fully developed. Since they are reactive rather than proactive to change, they do not plan for change. They blame others for the problems caused by change.

Type-O people on the other hand, have a strong life vision (Hoopes & Kelly, 2004). They view change, even major, unanticipated change, as a natural part of human experience (Conner, 1992). By virtue of the forgoing, Type-O people tend to contain the stress caused by disruption, know their limitations, are creative in using their resources, remain independent and self-sufficient, know how to tap the special skills of others and nurture relationships. Type-O characteristics can be summarized into the following five categories: positive, focused, flexible, organized, and proactive (Conner, 1992).

A positive individual views life as challenging but filled with opportunity (Conner, 1992). Focused people have a clear vision of what is to be achieved, and flexible people are pliable when responding to uncertainty (Conner, 1992). An organized individual applies structures to help manage ambiguity, and a proactive individual engages change instead of evading it (Conner, 1992).

The Positive and Flexible characteristics can be further split into Positive (World) and Positive (Yourself) and Flexible (Thoughts) and Flexible (Social), respectively, as described in the ODR (1996). The literature review did not discover research directly studying resilience characteristics and adjustment issues. However, the significance of resilience characteristics and adjustment can still be found. Different terms and frameworks have discussed the relationships between these variables.

“Positive: The World” is people’s tendency to focus on the positive elements of the world. Although most situations have both positive and negative aspects, people may concentrate on either positive or negative elements (Hoopes & Kelly, 2004). For people who view the world positively, they may see opportunities in a difficult situation, find solutions to a problem, and are better able to create situations that are positive. For people who view the world negatively, they may become anxious and depressed at difficult situations and are unable to find creative solutions (ODR, 2001).

ODR (1995) explained the significance of “Positive: The World” on the adaptation process. First, Isen (as cited in ODR, 1995) found that positive individuals are more likely to choose learning goals over performance goals. Dweck and Leggett (as cited in ODR, 1995) identified two kinds of goals: performance and learning goals. A performance goal sets as the desired state a particular level of performance, while a learning goal sets as the desired state some-level of improvement over one’s prior performance (ODR, 1995). By choosing a learning goal, the positive individual has a better chance to improve. Second, since positive individuals can identify opportunities in different circumstances, they may be able to identify better ways to achieve the desired results than negative individuals. Third, Isen (as cited in ODR, 1995) found that individuals in a positive mood tend to have better problem solving ability, which is more likely to lead to effectiveness, success, resources enhanced processes and eventually increased performance. Fourth, “Positive: The World” protects one from the energy drain of negative emotions. ODR (1995) explained that under negative moods, resources
were allocated to negative thoughts or feelings, which were not task related, and which may lead to a vicious negative cycle.

Positive: Self-Concept is that you believe yourself as a valuable and capable person, and that you believe you can influence the environment (Hoopes & Kelly, 2004, p. 69). Positive views on oneself enable one to build a strong foundation to fight against stress and uncertainty and provide one with confidence to endure failure. Positive: Self-Concept also enables one to take actions rather than wait passively for things to happen (ODR, 2001).

From the perspective of a cognitive resource approach, ODR (1995) pointed out that the effect of Positive: Self-Concept on successful adaptation to change lay in the following of two related aspects. On the one hand, when people do not have positive views on themselves, they may easily feel a threat to their esteem. Edward (as cited in ODR, 1995) pointed out that for most individuals, the goal of restoration of self-esteem was put in the priority in allocating resources. Steele, Spencer, and Lynch (as cited in ODR, 1995) also pointed out that when an individual feels a threat to their self-esteem, they may use self-efficacy and others’ supports, and even resources to defend against the threat.

Individuals with low-esteem, therefore, may need to spend a lot of resources to resolve a threat to their self-esteem, while individuals with high-esteem may be able to dismiss a threat quickly. On the other hand, individuals with positive views tend to expect future success on the basis of the previous success and to adopt learning goals.

The significance of Positive: Self-Concept on adjustment is discussed in the literature under different names. Aydin (1997) found that “Personal Control” is significant to adjustment. Personal Control is defined as the degree to which individuals believe they influence the process and outcome of their life events and the extent to which they feel forces beyond their control play a role in shaping and directing their lives” (Moran & Boyer International as cited in Aydin, p.146). It can be seen that both “Personal Control” and “Positive: Yourself” both describe an individual’s confidence in self (ODR, 1995).

Focused is having a strong sense of goals and priorities. If one is focused on important goals, she can easily allocate energy to attend to these goals (ODR, 1995). Further still, with a focused goal, an individual’s attention is less likely diverted by unimportant goals, thus, is more likely to have a simplified cognitive process to determine the relative importance of the remaining desire and perception discrepancies. Therefore, the individual does not waste resources on unimportant goals and does not use resources to rank goals according to their importance (ODR 1995). Hence, they have a better chance to efficiently use their resources to realize important goals. Without focused goals, people may put energy to things that draw their immediate attention. Therefore, it is likely that they will use resources inefficiently (ODR, 1995).

Flexible: Thoughts is defined as the person's ability and willingness to look at situations from multiple points of view, to suspend judgment while considering alternative perspectives, and to accept and live with paradoxes and contradictions as part of life (ODR, 1995; Hoopes & Kelly, 2004)). People with “Flexible Thoughts” tend to find creative solutions to problems, as they do not jump to conclusions. ODR (1995) explained the effects of “Flexible: Thoughts” on adaptation. First, an individual with “Flexible Thoughts” tends to have fewer resource demands as they are willing to tolerate
small discrepancies among desires and reality. Second, seeing a situation from different angles, an individual with “Flexible Thoughts” is more likely to find ways to modify a situation to fit his or her desires. Third, being able to view things from different angles, an individual with “Flexible Thoughts” tends to have enhanced capabilities to reduce discrepancy and to have modified coping strategies which prevent the waste of resources by sticking to an unsuccessful strategy (Hoopes & Kelly, 2004).

Aydin (1997) found that tolerance was significant for effective adjustment. Tolerance is defined as the willingness to endure unfamiliar surroundings and circumstance (Aydin, 1997). It also requires an ability to withstand living conditions and surroundings that are different than what one is used to (Aydin, 1997). Comparing the concept of “Tolerance” with that of “Flexible: Thought,” the two are closely related because “Flexible: Thoughts” enables one to adopt a “Tolerance” attitude.

“Flexible: Social” is the ability to draw on the resources of others (ODR, 1995; Hoopes & Kelly, 2004). People with the characteristic of “Flexible: Social” realize their interdependence with others. Moreover, they are able to establish strong social bonds which give them support during difficult times (ODR, 1995).

The impact of “Flexible: Social” on adaptation is described by ODR (1995) in the following aspects. First, a strong connection to others gives one adequate information and feedback to set out her goals realistically. A goal that is unrealistically low may not motivate a person while an unrealistically high goal may frustrate the same individual. Neither of these two kinds of goals enables an individual to effective use of her cognitive resources; only realistic goals enable one to efficiently use energy. Second, a strong connection with others helps one to develop a realistic perception of the current situation.

Without information and feedback, individuals can form overly positive or negative perceptions of the current situation, which is not conducive for the efficient use of resources. Only accurate perceptions of a situation enable one to use cognitive resources effectively. Third, feedback from others can initiate the process of resolving a discrepancy between desire and perception before it evolves into a bigger one. Such feedback, if actively sought, can cause many social costs. Strong bonds with other people can make such feedback easily available. Fourth, strong social relationships with others may make additional resources available. Strong ties to other people allow an individual to draw on others’ abilities and capabilities which improve his/her coping strategies, and even get others’ practical support. Emotional support from others enables one to view oneself realistically. Aydin (1997) found that there is a stronger relationship between stress and injury when an individual has neither personal nor social resources.

The significance of “Flexible: Social” on adjustment is discussed in the literature under different terms. Aydin (1997) found that “Interpersonal Interests,” “Trust in People” and “Social Adaptability” are significant to adjustment. Interpersonal Interests is defined as the extent to which individuals take interest and enjoyment in being with other people (Moran & Boyer International as cited in Aydin, 1997). “Trust in People” is defined as “the extent to which an individual has an attitude of faith and trust in others.” “Social Adaptability” is defined as “the ability to adjust to new or unfamiliar social situations. The ability to socialize comfortably with other people in new situations, and the ability to form new groups of friends are the major focuses of this dimension” (Moran & Boyer International as cited in Aydin, 1997). The three concepts found in Aydin’s
research “Interpersonal Interests,” “Trust in People” and “Social Adaptability” are closely related to and in line with “Flexible: Social”.

“Organized” is the ability of one to find order in chaos and structure in ambiguity, and to move beyond thought toward action (ODR, 1995). This feature enables a person to set priorities on different tasks, concentrate on important ones, and make up plans to realize them. Organization enables one to efficiently use resources (ODR, 1995). ODR (1995) discussed the importance of “Being Organized” on adaptation. First, organization skills and the discipline planning enable one to select among several possible strategies and take a series of steps within a strategy. Saving resource by doing one thing at a time and knowing what happens next. Second, organizational skills enable one to set up short term goals within a task, which makes the major goal appear manageable each time and enables one to allocate small amounts of resources at a time.

“Proactive” is the willingness to act decisively in the midst of uncertainty (ODR, 1996; Hoopes & Kelly, 2004). Proactive people are willing to take some risks for valuable opportunities. When disruption comes, they are willing to take active strategies rather than use avoidance and withdrawal strategies (ODR, 1995). The essence of “Proactive” is willingness to take risks. ODR (1995) explained the role of “Proactive” on adaptation. First, willingness to take risks may lead to high performance through the setting up of high standards. Second, willingness of risk taking leads one to have active coping strategies, which has been found to be connected with better adjustment by Aspinwall and Taylor (as stated in ODR, 1995).

The significance of “Proactive” on adjustment is described in the literature under different terms. Aydin (1997) found that proactive traits such as “Initiative,” “Risk Taking” and “Personal Control” are significant for adjustment in the U.S. culture and related that under the U.S. proactive cultural environment, proactive abilities are rewarded. “Initiative” is defined as “the extent to which individuals are able to be the first to take charge of new or challenging situations and accomplish whatever needs to be done” (Moran & Boyer International as cited in Aydin, 1992 p.146). “Risk Taking” is defined as “the willingness to take risk, meet challenges and cope with change” (Moran & Boyer International as cited in Aydin, p.147). “Initiative” and “Risk Taking” describe similar traits as “Proactive” because the central focuses of the two sets of personal characteristics are risk-taking and responsibilities.

ODR (1995) pointed out that all of the above characteristics are not independent of each other. ODR (2001) also held that the above-mentioned characteristics apply to all change situations and different change situations may require one or several of the above resilience characteristics. Resilient people are strong in all of the seven areas, and are balanced in their resilience characteristics. They can draw upon different characteristics under different situations. People who are strong in some areas yet weak in the rest areas are not balanced in their resilience characteristics. They tend to use the characteristics in which they are strong and not to use those where they are weak. They may be able to successfully cope with some of the change situations, yet they may become less efficient at others. In general, they tend to possess less resilience than people who are balanced and strong in all areas.

Enhancing Resilience

Resilience characteristics can be enhanced. According to Conner (1992), everyone can increase resilience characteristics. The difference among people is those
individuals who have more resilience characteristics inherently may find it is easier to enhance their resilience while people who do not have a lot of resilient capabilities to begin with may need to make special efforts to increase their resilience. One can improve resilience by understanding and respecting resilience characteristics, conserving physical, intellectual, and emotional energy against useless waste, and liberating resources. To be specific, one can improve resilience by improving weak areas of resilience characteristics and practice these resilience skills in coping with daily life change (Wang, 2003). Moreover, the guidance and support from people who are strong in others’ weak areas can help them to improve their resilience levels. Resilience characteristics are important indicators of one’s ability to deal with change. It is desirable to have strong and balanced resilience characteristics in all seven areas. Resilience can be enhanced through individual conscious efforts (Wang, 2003; Hoopes & Kelly, 2004).

Learning Disabilities

A learning disability may limit ability to maximize academic potential, social independence, achieve economic security and contribute to society (Hudson & English, 1995). Students with learning disabilities often experience a multitude of difficulties throughout their academic careers. This section will discuss (1) definition of learning disabilities; (2) significance of learning disabilities and (3) learning disability risk factors.

Definition of Learning Disabilities

The term “learning disabilities” (LD) encompasses a relatively broad group of cognitive impairments, which involve a disorder in one or more of the basic mental processes presumed to be related to a central nervous system functioning (Hall, Spruill, & Webster, 2002). The disorder creates an array of communication problems in speaking, listening, writing, reading and/or mathematics, and reflects a severe discrepancy between apparent potential for learning and actual level of achievement (Lerner, 1997).

Problems with perception, language, attention, or coordination may be revealed in the complex behaviors of learning, communication, and general activities of daily living (Zwerlein, Smith, & Diffley, 1984). There is no one pattern and no universal characteristic of a learning disability. There are some common patterns, including academic problems, specific perceptual problems, perceptual motor problems, and behavioral problems each of which has predictable consequences and may limit academic performance or activities of daily life.

Academic Learning Disabilities

Learning disability is a general term that refers to a heterogeneous group of disorders manifested in significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities (Costello & English, 2001). The following sections will discuss the different types of learning disabilities and how they affect students.

Reading requires the integration of auditory, visual, and motor functions. Students with a reading disability are known to have dyslexia (Costello & English, 2001; Hudson & English, 1995). Zwerlein, Smith, & Diffley (1994) describe dyslexia as experiencing deficits in one or more of the previous process areas. They are of average or above intelligence, yet deficits in visual, auditory, or motor processes interfere with reading success (Zwerlein et al, 1994). Individuals with dyslexia may have some reading skills while lacking others. For example, a person with dyslexia may have the ability to
read sounds and isolated words perfectly while she cannot comprehend short paragraphs. Another individual with dyslexia may have weak phonic skills yet good comprehension skills. Skills in visual memory for words as well as her language ability in understanding words in sentences and paragraphs allow the person with dyslexia to make progress in reading comprehension. An inability to perform mathematics is called “dyscalculia.” (Zwerlein et al., 1994). Student’s with dyscalculia usually has some mathematics skills but lacks others. The individual who has trouble remembering facts over a long time period is unable to retain basic mathematic facts yet may understand the mathematical process if he has good language skills (Zwerlein et al, 1994; Hudson & English, 1995). Some individuals with dyscalculia have spatial problems when they are required to write on lined paper or have to align numbers into proper columns. Some individuals with mathematic learning disabilities reverse (transpose) digits in numbers, confuse signs (e.g., addition and subtraction), have difficulty following problems with multiple steps, or have difficulty using abstract reasoning when solving problems. Individuals with dyscalculia can succeed by modifying or adapting material in a fashion appropriate to their learning strengths (Zwerlein et al, 1994). An inability to write adequately is called “dysgraphia.” (Zwerlein et al, 1994). Since writing is visual language, language skills need to be developed prior to written skill. Auditory, visual, and visual-motor skills must be adequate. Visual abilities, such as reading left-to-right and focusing on specific words, must be integrated and coordinated with fine motor skills. Auditory abilities, such as sound discrimination, are necessary for correct spelling conceptual skill for effective writing. Students with dysgraphia have difficulty with some of the above skills. Their errors in writing may include lack of organization, lack of clarity, lack of unity, fragmented statements, discrepancy between oral and written intent, mechanical errors, cluttered words, spatially disarranged sentences, reversal of letters, omission of letters, incorrectly copied pages, transportation of letters, or poorly closed letters (Zwerlein et al, 1994). Learning disabilities can also be related to perceptual problems or the process by which the brain organizes and interprets sensory information. Zwerlein et al (1994) discuss common perceptual problems in students with learning disabilities. The following sections will discuss auditory, visual, and motor problems. Specific areas discussed by Zwerlein et al (1994, p.96) include the following:

**Auditory Problems**

1. **Auditory Discrimination:** Individuals with this problem have trouble discriminating pitch, loudness, speech sounds and noises. Confusion of the sounds “m” and “n” or “th” and “f” are examples of auditory discrimination problems.

2. **Auditory Figure-ground Perception:** Individuals with this difficulty have trouble hearing a specific sound over competing background noise (e.g., inability to listen to a conversation when the radio is on, or inability to follow an oral command when someone in the vicinity is clicking a pen).

3. **Auditory Sequential Memory:** Individuals with this problem have trouble discriminating sounds or reproducing sounds in the correct order (e.g., inability to repeat a tongue twister orally, or failure to do homework if assignment is given verbally).

**Visual Problems**
Individuals with visual learning disabilities have difficulty taking in stimuli through the sense of sight and understanding such information (Zwerlein et al., 1994, p. 10). Specific problem areas include the following: 1. **Visual Discrimination:** Individuals with this problem have trouble discriminating dominant features in different objects. Confusion between two similar letters such as “v” and “u” or “c” and “e,” and confusion between similar words as “house” and “horse” and “an” and “am” are examples of problems visually learning disabled individuals experience. Problems in recognizing cars of similar colors, or in identifying familiar locations are specific functional limitations that visually learning disabled individuals may experience. 2. **Visual Figure-ground Perception:** Individuals with this difficulty cannot see a specific image within a competing background. People with this problem have trouble finding a face in the crowd, finding their keys on a crowded desk, or finding a specific line on a page being read. 3. **Visual Sequential Memory:** Individuals with this problem have trouble remembering the correct order of several items presented visually. They may see letters out of order (“was” for “saw”), see handles on a faucet reversed, or confuse the sequence of events in a film or the steps in a diagram. 4. **Depth Perception:** Problems occur when a person has trouble perceiving the distance of an object. The learning disabled adult with this deficit would misjudge the distance of cars when parking. 5. **Spatial Perception:** Individuals with difficulty in this area exhibit disorientation of their bodies in space as well as misperception of the position of objects they come in contact with. They may have difficulty keeping their place when reading or writing on lined paper. Inadequate spacing in writing, difficulty in understanding maps, measurements and graphs, and a poor sense of direction are additional problems experienced by those with a spatial relationship problem.

**ATTENTION DEFICIT DISORDER**

Students diagnosed with Attention Deficit Disorder have difficulty with usual attention and control functions of the brain. Zwerlein et al. (1994, p. 13) state students may exhibit the following behavioral problems:

1. **Hyperactivity:** A person with hyperactive behavior seems to lack inner control. Students may move around aimlessly, have a short attention span and be easily distracted. He may be continually shifting around in his seat, tapping his feet, playing with things, and creating a disturbance in his surroundings. He often has trouble beginning, staying with, and completing a task. 2. **Impulsivity:** Impulsive learners lack self-control and react too quickly to stimuli. They make many errors and often respond too quickly to questions before thinking through their answers. They often show impatience and rush to do a task before full directions are given. 3. **Disinhibition:** A person who is learning disabled shows disinhibiting behavior, seems to have difficulty staying on topic in conversation and often gives inappropriate responses that are unrelated to questions. She frequently gets carried away by her thoughts from experiences and inappropriately injects them into conversations. The behavior is not controlled by appropriate foresight and judgment. 4. **Perseveration:** A person with a learning disability who perseverates is unable to stop a task easily upon its completion and is also unable to shift attention from one activity to another. Examples of perseveration are repeating a word over and over or adding in a series of arithmetic problems even though it is understood half of them are subtraction
problems. 5. **Low Tolerance for Frustration**: The individual with a learning disability may be easily excited when new responses are required of them. Sometimes their frustration relates to the inability to do a task using a weak learning channel whereas stress is alleviated when they are assigned a task using an area of strength (e.g. auditory, visual, or motor modalities). Sometimes the student with a learning disability has trouble accepting or adjusting to change because the familiar environment or routine has made his jumbled world more predictable and secure. A person with a learning disability may react to changes which others perceive as minor or irrelevant. The instructor who moves a workstation or rearranges a desk may upset the learning disabled student who has become comfortable with the new location of objects.

**Learning Disability Risk Factors**

Serious intrapersonal and interpersonal problems, including loneliness, low self-esteem, depression, suicide, and delinquency, are common among individuals with learning disabilities. Learning disabilities impact significantly on both behavioral and cognitive development. Research has documented that the effect of learning disabilities on academic, vocational, and emotional well-being not only continues but often increases over time (White, 1992). These problems exacerbate those presented by the learning disability itself and may lead to serious negative outcomes in adulthood. Psychosocial adaptation to disability is a theoretical basis for emphasis on risk factors that may impact the developmental growth of college students with learning disabilities. Garmezy (1983) defined risk factors as those that are associated with the increased likelihood of an individual developing an emotional or behavioral disorder in comparison with a randomly selected person from the general population. Risk has also been identified in relation to academic failure (Wehlage, 1989). Emphasis should be placed on the risks of negative peer pressure, lack of normative expectations and identifying effective academic and social/emotional interventions. Internal and external risk factors may interact with the learning disability to create socio-emotional complications or societal maladjustments.

Chickering and Reisser (1993) concentrated on the development of college students. Seven vectors were presented to conceptualize college student development. This theoretical perspective assumed that emotional, interpersonal and ethical development deserved and ultimately required empirical examination to understand the personal evolution of college students (Costello & English, 2001).

In a series of studies investigating the social-emotional adjustment of students with learning disabilities at university and rehabilitation settings, Gregg, Hoy, King, Moreland, and Jagota (1992) identified that a common characteristic in individuals with learning disabilities was a high degree of anxiety, similar to posttraumatic stress. Costello and English (2001) surveyed one hundred four college students with disability and one hundred six college students without disabilities exploring their psychosocial development utilizing Chickering’s seven vectors. The results indicated no differences between the groups with the developmental constructs of purpose, salubrious (good for health) lifestyle, and intimacy. However, the presence of a learning disability may interfere with psychosocial development in that students with learning disabilities may unknowingly forfeit psychosocial development to maintain acceptable academic standards (Costello & English, 2001).
Costello and English (2001) found college students with disability were significantly different from those without disability in developing mature interpersonal relationships. Students with early diagnosis of learning disabilities were the least socially mature. There appears to be a logical link between the construct of developing mature interpersonal relationships and academic autonomy (Costello & English, 2001). The ability to establish mature relationships allows students to develop autonomy and confidence to approach other individuals and seek support for academic and personal issues without becoming dependent. Mature relationships allow college students to seek knowledge about themselves and further understand their learning disability.

Codson & McNamara (1997) investigated the relationship between students’ understanding of their learning disabilities and their global and academic self-concept. The gist of this study was based on how individuals with disabilities accept their disabilities. Research indicates college students with learning disabilities appear more vulnerable to academic stress and failure than college students without learning disabilities. Recognition of the existence of the learning disability and understanding the specificity of its impact on other aspects of one’s life had a positive effect on self-efficacy. Students who view their learning disability as having a pervasive and unchangeable impact on many aspects of their lives would have lower self-efficacy than those who felt that their disability was more circumscribed and changeable. Thus, the meaning students give to their learning disability may help explain the variance in their self-efficacy. Cosden and McNamara (1997) found college students with learning disabilities had lower grades, test scores and perceptions of their scholastic and intellectual abilities than students without learning disabilities. The presence of a learning disability can have significant impact on students’ academic self-concept and the individuals with the disability are assumed to experience lower self-efficacy than their more academically successful peers do (Barga, 1996). Barga (1996) examined factors that contribute to the success of college students with learning disabilities to explore how the students manage their learning disability. The study found that students employed a variety of positive and negative coping techniques in an effort to successfully manage their disabilities. Positive techniques consisted of utilizing support system, management strategies to assist with academics and implementing self-efficacy techniques.

Perceived social support is another area that has been associated with self-perception in students with learning disabilities. The influence of instructors, parents and peer groups has a tremendous effect on the self-efficacy of individuals with learning disabilities. The information and emotional support provided by these individuals can make their transitions through life much easier. The foundation for an intrinsically motivated individual will be established leading to a more productive and inclusive personality. Students with learning disabilities have been found to report lower levels of self-esteem, experiencing less emotional support and having greater academic and personal-emotional adjustment dysfunctions than their peers without learning disabilities (Hall, Spruill, & Webster, 2002). Limited protective factors that aid in retention coupled with adverse experience may serve to restrict and weaken academic performance.

Individuals with learning disabilities are at a higher risk of dropping out of secondary or postsecondary institutions. Research documents that young adults at greatest risk of lifelong economic and social dependence are individuals with disabilities who drop out of school (Haring & Lovett, 1990). Dropping out of school is a major
societal problem, both in terms of the impact on the individual who has dropped out and as a general indicator of educational and economic decline. Litchenstein (1993) found that individuals with learning disabilities who drop out of school are at particular risk for extended economic and social disadvantage.

Individuals with disabilities are also documented as having poor wage earnings and poor benefits as a result of dropping out of school. One factor that the literature found to be particularly important to the ultimate success of adults with learning disabilities is level of education (Greenbaum, Graham, & Scales, 1995). In studies concerning occupational and social status of adults with learning disabilities after graduating from college, it was discovered that 80% or more of the participants were employed mostly in professional and managerial positions (Rogan & Hartman, 1990). These findings are consistent with Greenbaum et al. (1996) in that a college education has a positive impact on the employment status of young adults with learning disabilities. Those who attend college typically obtain better paying and higher status jobs than those who do not. Studies indicate that students with Bachelor’s degree earn significantly more money over a lifespan than those that do not.

Transitional issues facing individuals with learning disabilities making the transition from secondary institutions include pursuing postsecondary education, initiating and maintaining employment, adjusting to social and community structure, and handling independent living. For many people these issues become barriers in the attempt to increase their control over their own lives.

In a series of studies investigating the social-emotional adjustment of adults with learning disabilities at university and rehabilitation settings, Gregg, Hoy, King, Moreland, and Jagota (1992) identified that a common characteristic of adults with learning disabilities in these two settings was a high degree of anxiety, similar to posttraumatic stress disorder. While many young adults with learning disabilities in college settings appear to demonstrate appropriate social skills, internal personality problems may be impacting significantly on their daily living. Some adults with learning disabilities may also demonstrate poor social skills, not as a result of cognitive processing deficits, but as a result of a poor self-concept that leads to social alienation and avoidance (Gregg et al, 1992).

Research is limited that has examined the impact of learning disabilities on resilience (Spekman, Goldberg, & Herman, 1993). Resilient individuals are those who experience successful outcomes despite adverse experiences (Luthar & Zigler, 1991). Most researchers generally concede that resilience is affected by the opposing mechanisms of protective factors and stress. Level of stress is determined by risk factors and is usually associated with negative life outcomes. The presence of a learning disability itself is considered a risk factor associated with negative outcomes throughout the lifespan (Spekman, Goldberg, & Herman, 1993). There are wide variations in the emotional and social adaptation of individuals with learning disabilities (Morrison & Cosden, 1997). Personal and environmental risk exacerbations of difficulties for individuals with learning disabilities must be examined in an effort to derive intervention strategies that will assist with retention of this population of college students.

In a longitudinal transition study of special education students, Wagner, D’Amico, Butler, Marder, and Cox (1991) found only 14% of students with learning disabilities who pursued postsecondary education were more likely to attend four year
colleges and universities. A shocking study indicated less than 3% of individuals with learning disabilities have been found to enter a four-year college or university one year after graduating from high school (Fairweather & Shaver, 1991). The American Council on Education (1985) reported that 1.1% of all first-time, full-time freshman college students had a reported learning disability. This percentage had nearly tripled by 1994, reaching 3% (Henderson, 1994). The number of students with learning disabilities in all educational institutions has increased from .3% to 1.2% (Higher Education and Adult Training for people with Handicaps [HEATH], 1992).

However, in spite of federal laws to assist them, such as the Individuals with Disabilities Education Act, special students continue to face multiple problems that make learning in the school environment difficult (Wright, Cooperstein, Grogan-Renneker, & Padilla, 1982). There are many areas in which students with learning disabilities may have difficulties. Numerical concepts, reading, writing, and spelling are just a few of the possible deficient areas for these students. They may demonstrate difficulty in understanding or following directions and often misinterpret social situations or other behaviors. How these individuals react to these areas will ultimately decide their future.

**Background Factors that Influence Academic Achievement and Personality**

The importance of effort in the success of students is well documented. Volkwein, Valle, Parmley, Blose, and Zhou (2000) studied the academic performance of almost 2,500 graduating seniors in 20 different universities in 1997. They found that age, high school rank, SAT scores, and degree of effort were the only significant factors predicting cumulative grade point average for students that started college directly after high school. Noxel and Kunich (1998) studied the enrollment patterns of students at Ohio State and concluded “personal motivation and goal setting played a major role in their progress.” Allen (1999) found this to be even more evident in minority students. Despite this clearly-defined relationship, it is known that first generation low income students tend to study less than their peers (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). Nunez and Cuccaro-Alamin (1998) found that with all things held constant (e.g. SES, attendance status, and institution type), first-generation status had a negative effect on persistence.

The impact of this unrealistic picture of what is needed for success is augmented for low income students by the other financial and familial pressures. Trenzini et al. (1996) found low income students worked more and supported more dependents than other students. They have more pressures pulling them away from the academic process (Loundon, 1989) and a less realistic picture of how much they can be pulled away and still succeed in the academic arena. This is a deadly combination that predisposes low-income, first generation, and/or students with learning disabilities for failure.

Quinn and Blair (1999) identified educational aspirations as a critical variable influencing retention and graduation. The degree to which a student’s educational aspirations are materialized rely on elements that can encourage or discourage academic success. Certain student characteristics have been identified as threats to the retention of college students. These include class attendance, tutorial hours, socioeconomic status, lack of positive peer influences, lack of technological experience and educational disadvantages. What do we know about the relationship of these factors to the retention rate for college students admitted under special criteria? Research exploring the rate of dropout by students with learning disabilities were significantly higher in which between
one-third (33%) and almost half (47%) are common (Levin, Zigmond, and Birch, 1986). Transitioning to postsecondary education is significantly more difficult for first-generation students. Choy (2001) found that first-generation college students were more susceptible to leave four year institutions before their second year than non-first generation students. Individuals who are first-generation and/or have learning disabilities that dropout of school are at particular risk for extended economic and social disadvantage.

Summary

As increasing numbers of first-generation college students with and without learning disabilities attend college, student affairs professionals, rehabilitation counselors, and student counseling center psychologists will be relied upon to make appropriate recommendations regarding directions for individual students and programming efforts. Although support service programs for students are frequently offered, it is necessary to evaluate these services to make sure they are finding and assisting this population. Greater numbers of first generation students (47%) are aspiring to attend college, and this trend is likely to continue (McCarron & Inkelas, 2006). Interventions, such as establishing self-efficacy and resilience that apply knowledge and promote academic success among students are becoming necessities.

Students who feel that their behavioral skills and social acceptance was high also feel less negative about their potential for success in postsecondary education. Perceived and real social skills and social support are clearly important to students, and the relationship of these perceptions to perceptions of one’s ability warrants further study.

First-generation college students represent a population rich in skills and resources. When the educational environment treats such students differently, those schools become negligent, for not holistically tapping into the full potential of such individuals. We, as counselors and future educators, must strive to ensure that all students have an equal playing field in terms of education and opportunities.
CHAPTER III
METHODOLOGY

This chapter detailed the research process used to examine the hypotheses of this study. The methodology covered: a description of the research population, selection of the research sample, research design, data collection procedures, instrumentation, independent and dependent variables, research questions, hypotheses, data analysis, and research delimitations.

Research Population and Participants

The research population included freshmen to senior undergraduate students attending a public university. The groups of interest within this population were traditional undergraduate college students, mostly age 18 -22, who have been identified as students admitted to college under special admission criteria. Most of the participants are first-generation college students and some have diagnosed learning disabilities.

The sample was traditional college students who attended a large public Southeastern university during the 2006 -2007 academic year. To be eligible for the study, students were registered with one of two special enrollment services for students with disability or in need of retention assistance. A minimum of 100 volunteer participants was necessary to generalize the study. This number, 100, is based on a statistical power analysis which included sample size, level of significance (.05), directionality of the hypotheses, and desired effect size calculated by computing Pearson product-moment correlation (Cohen and Cohen, 1975; Gall, Borg, and Gall, 1996; Nunally, 1978). The students were stratified by academic classification into four secondary sub-groups.

The university selected as the research site was chosen due to the similarity in terms of admission criteria, minority students, and gender representation of its undergraduate student populations to other Research I institutions in the United States. It was also chosen because it is supportive of the study, hosted a related study in 1998, and supports the researcher who is an employee in the university retention services Program involving at-risk students.

Data Collection Procedures

Students were contacted through the assistance of the two university services organizations, one for individuals needing help with a disability and another needing help for retention. Participants were volunteers from the entire population of the two programs. This population was 1468, consisting of 1141 retention service students and 327 disability service students.

The initial group exceeded the size of the desired sample population. This was to provide a contingency procedure to deal with the students who decline to volunteer in an effort to surpass the minimum sample goal of 100 research participants needed. This over sampling reflects documented experience in survey research (Cohen & Cohen, 1975). When the research question is being approached through a survey approach, the representativeness of the sample can be crucial (Melzoff, 1998). The sample represents an adequate portion of the population studied to obtain adequate power. Power is a function of the criterion that the researcher adopts for statistical significance, the samples size, and the effect size that the researcher wishes to detect (Cohen, 1969).

Each student selected in the sampling procedure was contacted via their e-mail address posted by the university registrar. The students were told that they were being
contacted by university student services for the purpose of e-mail and local mailing address verification. E-mail addresses were updated and the initial research packets were e-mailed within one week of the verification contact.

The Assistant Dean for Student Affairs, who directs support services for students with learning disabilities at university agreed to collaborate in this research study. In order to increase the probability of student participation two letters of support for this study were sent to potential student participants, along with the research packets. These letters were from the Dean of Undergraduate Studies and Director of student disability services or Director of the retention program.

All participants were required to sign and return a “consent form” which had been approved by the University Human Subjects Committee. The Human Subjects Committee required that research contain relevant data for informed consent to be included in the endorsement letter. Therefore, by completing and returning the research instruments, the students were demonstrating informed consent. The research packets were e-mailed to freshmen through senior students admitted under special admission criteria and/or with learning disabilities attending the university.

Each research packet contained a cover letter from the researcher, an endorsement letter from an Assistant Dean of Student Affairs and an endorsement letter from the Dean of Undergraduate Studies, an Informed Consent Form, the Student Demographic Form, the General Self-Efficacy Scale, and the Personal Resilience Questionnaire.

All university students have active e-mail accounts through the university computer networking system. The participants received an e-mail with above information including an option to complete the survey on-line via the internet. This process allows students to access the surveys from a computer, complete the information and return them via the internet. This process was secured through a website that students may access. The website was provided in the e-mail sent to all potential participants. Elements within the study were explained and individual confidentiality was assured.

One week after the initial mailing and e-mail contact, follow-up e-mails were sent reminding the students to complete the surveys. Replacement copies of surveys were provided if necessary. The reminder e-mail also included the website to access the surveys again. Two weeks after the second e-mail, a third e-mail will be sent to remind the students to complete the research packet. Follow up e-mails were sent during weekly intervals and continued throughout the summer, fall, and spring terms. During the month of October invitations to a pizza party was provided to elicit more participation from the students. During the party students were encouraged to complete the survey. Completion of the surveys made students eligible to receive an I-pod courtesy of the researcher. Follow-up e-mails continued until March prior to the beginning of spring break.

The cover letter from the researcher described the study and explained each of the components contained in the packet. The participants of the study were required to either complete the forms on-line or return all forms in the stamped envelope. The cover letter also stated that upon completion of the surveys, participants will be entered into a raffle for a $100 first prize, a $50 gift certificate to Dillard’s, or a $25 dinner coupon and be invited to the post-study results dissemination social. The letter also assured the students of the confidentiality and anonymity of their responses.
Completed answer sheets were downloaded, transcribed and electronically scored. A preliminary analysis of the responses classified students as freshmen, sophomores, juniors, seniors and graduate students. To be classified as a freshman a student must have completed less than 30 college credit hours, sophomores 30-60, juniors 60-90 hours, and seniors over 90 college credit hours. Students not classified as a freshman, sophomore, junior, or senior will not be used in this study; graduate students were eliminated. Archival data on academic performance was gathered through the Regional Data Center and the Business Objects Information System. These Centers had an information database that contained student information required for admission, retention, and graduation data. The specific data that was used for this study were the cumulative grade point average, SAT/ACT scores, and high school grade point average.

Instrumentation

Two instruments and a demographic form were used to collect relevant data regarding the specific question prompting this study. They are the General Self Efficacy Scale (GSE), Personal Resilience Questionnaire (PRQ) and the Student Demographic Form (SDF). Relevant descriptive and psychometric information regarding each instrument is contained in the following paragraphs.

Personal Resilience Questionnaire (PRQ)

The Personal Resilience Questionnaire was designed to measure an individual’s ability to confront change in a way that maintains or enhances current levels of functioning (Connor, 1992). The PRQ gauges resilience from the perspective of seven subscales: Positive (World), Positive (Self), Focused, Flexible (Thoughts), Flexible (Social), Organized, and Proactive (ODR, 1996). It consists of 70 questions, with ten statements for each subscale. Respondents are asked to choose from among six-point likert scale places, ranging from “strongly agree” to “strongly disagree.” Higher scores on the PRQ indicate stronger resilience characteristics.

Validity and Reliability of the PRQ

The document: “Criterion-related validity of the Personal Resilience Questionnaire” (ODR, 1996) showed the procedures of verifying the criterion-related validity of the PRQ. In order to test the predictive validity of the PRQ for successful performance (achievement) over change, ODR tried to find whether there was a link among the PRQ and change-related performance (achievement) criteria. In order to capture varieties of situations, five studies were conducted to determine the predictive validity of the PRQ for job performance. The first study was carried out on a small division of a large financial company. The members of the division constantly faced change in their work. The criteria of this study were performance indicators including ones that measure effectiveness during change. On the basis of the performance rating, individuals were grouped into three groups: least effective performers, middle effective performers, and highly effective performers. The three groups were then compared on the basis of the scores from each of the seven resilience characteristics. The results suggested that three characteristics, “Positive: The World”, “Positive: Yourself” and “Focused Help” differentiate people from different groups.

Research has been done on the reliability of the PRQ (Bryant, 1995). Using the Chronbach approach, internal consistency reliability coefficients were calculated for the seven sub-scales of the PRQ. Positive (World) had .80 of Chronbach’s alpha, Positive
Prior to conducting statistical analysis, steps were taken to estimate the reliability of the data gathered during this study. This included the calculation of a correlation alpha for the seven sub-scales of the PRQ. Positive (World) has .79 of Chronbach’s alpha, Positive (Self) has .81, Focus has .82, Flexible (Thoughts) has .55, Flexible (Social) has .62, Organized has .71 and Proactive has .59. Based on the results of these reliability estimates, it was determined that this data demonstrated adequate internal consistency.

Bryant (1995) tested the test-retest reliability of the PRQ, computing both among-person and within-person correlations. The among-person correlations assess the stability of each subscale, while within-person correlations reflect the stability of subscale rank-order over time (Bryant, 1995). He calculated the among-person correlations for each subscales of the PRQ over different time intervals (two, four, six and eight weeks), and found that the correlations fell between .71 and .80, which showed acceptable stability. From the statistical results, he concluded “the among-person correlations…demonstrate the stability of PRQ subscales over short to moderate time periods”. He also found that the median within-person correlation for scores on the PRQ for two-week, four-week, six-week and eight-week periods were .91, .88, .88 and .79, respectively. On the basis of the high correlations, he concluded that the PRQ “maintains a similar pattern upon repeated administrations of the PRQ.”

General Self-efficacy Scale (GSE)

The General Self-Efficacy Scale (Jerusalem & Schwarzer, 1992) was originally developed as a German version in 1979 and later revised and adapted to 26 other languages by various co-authors in 1995. The unidimensional scale was created to assess a general sense of perceived self-efficacy with the aim to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events (Schwarzer, 1992). The scale is designed for the general adult population and has proven to be useful with adolescents and young adults. In relation to participants of this study, stressful events can include anything from transitioning to college to financial issues.

Reliability and Validity of the GSE

In 1995, Ralf Schwarzer and Matthias Jerusalem reported that in samples of 23 nations, Chronbach’s alphas ranged from .76 to .90 with the majority in the high .80’s. The scale is unidimensional. Criterion related validity is documented in numerous correlations studies, where positive coefficients were found with favorable emotions, dispositional optimism and work satisfaction. Negative coefficients were found with depression anxiety, stress burnout and health complaints.

The measure has been used internationally with success for two decades. It is suitable for a broad range of applications. The GSE can be taken to predict adaptation after life changes, but it is also suitable as an indicator of quality of life at any point in time. Estimates were taken for the reliability of the data gathered for this research study. An academic version of the GSE was developed and calculation of the correlation alpha was completed on the sample of the tasks. The coefficient alpha obtained for the inventory on this research sample was .85, which compared well to the coefficients range from .76 to .90 obtained by Schwarzer and Jerusalem in 1995.

The Student Demographic Form

The Student Demographic Form was developed by the researcher and requests
background information central to this study. Similar demographic instruments were used by prior student researchers (Costello & English, 2001 and Dipeolu, 1997). Specifically, the form gathers information about age, gender, race, grade point average, year in college, socio-economic status, existence of a learning disability, utilization of student services, community involvement and family support in education. The form was developed to assure that appropriate data would be gathered for descriptive data contained within the study.

**Academic Data**

Already documented information was used to determine student’s academic performance in the prior term. This data consisted of participant’s high school grade point average. This data was made available by consent of student volunteer participants and accessed through the Regional Database Center and the Business Objects Information System.

**Independent Variables**

The independent or predictor variables for this study were based on a review of the literature and their hypothesized impact on the academic performance of university students admitted under special admission criteria. The elements of the independent variables specific for this study contained in the General Self-Efficacy Scale and the Personal Resilience Questionnaire are as follows:

1. Self-Efficacy
2. Characteristics of Resilience
3. Admission under Special Criteria (first-generation, learning disability)

Selected demographic refers to background features, which previous research suggests influence the academic performance of adolescents and young adults. The documented relationships were provided in chapter two. Preliminary review suggested that selected demographics were relevant. These are parental involvement in student’s education, student utilization of support services, and involvement in nonacademic activities.

**Dependent Variable**

The dependent variable in this study was the academic performance of students admitted under special criteria. This was to be determined by the overall grade point average of participants in the study. Archival data was used with indices of academic potential with the sole purpose of describing the sample. These included high school grade point averages.

**Research Questions**

The intent of this study was to examine the relationship between self-efficacy and resilience on the academic performance of college students admitted under special admission criteria. Specifically, this study answered the following four questions:

1. What was the relationship between the characteristics of resilience and academic performance of college students admitted under special criteria?
2. What was the relationship between academic self-efficacy and academic performance of college students admitted under special criteria?
3. What was the relationship between use of services and academic performance of students admitted under special criteria?
4. What was the relationship between parent involvement in education and the academic performance of college students admitted under special criteria?
5. What were the contributions of each of these variables to academic performance in college students admitted under special criteria?

**Hypotheses**

It is believed that there is a relationship between self-efficacy and the characteristics of resilience with respect to academic performance of college students admitted under special admission criteria. Therefore, several hypotheses tested within this study were directional and causal in an effort to predict a specific relationship exists. The following hypotheses were tested to answer the research questions in this study.

1. College students with higher characteristics of resilience will have higher grade point averages.
2. College students with higher self-efficacy will have higher grade point averages.
3. College students who utilize student services will have higher grade point averages.
4. College students whose parents are more active in their education will have higher grade point averages.

**Research Design and Data Analysis**

A correlational analysis was used to clarify relationships between the independent variables (self-efficacy and characteristics of resilience) and the dependent variable’s (academic performance). The design of the study can be described as a “criterion group” since its purpose will be to discover or clarify relationships through the use of correlation coefficients (Gall, Borg, & Gall, 1996). The criterion group study is designed to ascertain the magnitude of the relationships between the variables of interest. The statistical methodologies include means, standard deviations, frequencies, correlations and multiple regressions. The analysis of the data will be computed by the Statistical Package for the Social Sciences (SPSS).

Pearson Correlation and multiple regression procedures were computed to answer the research questions. The Pearson Correlation was applied to research questions one, two, three, and four. This technique was utilized to determine if there is a high degree of positive and significant correlations between the variables and the selected alpha level of .05. This technique, known as multiple comparisons, has been supported by Cohen & Cohen, 1975. They suggest that with appropriate alpha (≤ .05) and significant and positive correlations between the variables, adequate protection for type-I error exists. A multiple regression analysis was applied to research question number five. The criterion for the regression procedures were admission under special criteria, self-efficacy, parental involvement, and characteristics of resiliency. The predictor variable was academic performance or the student’s grade point average. The FSU grade point average is calculated from all letter graded classes taken at FSU. To be retained and remain in “good academic standing” students must maintain a cumulative FSU grade point average of 2.0. The potential control variables were derived from the information in the student demographic form.
CHAPTER IV

RESULTS

Purpose
The purpose of this chapter was to present the findings obtained from this research. This chapter begins with a review of the results from the study, and progresses through a sequential presentation of the results obtained from each research question. The final section provides a summary of the results and transition to the discussion in Chapter V.

The findings, presented in this chapter were based on the scores of the respondents on the seven subscales of the Personal Resilience Questionnaire (PRQ), General Perceived Self-efficacy Scale (GPSS), and the participant responses on the Student Demographic Form (SDF).

This data analysis used a logical and sequential series of data analysis techniques which included calculating descriptive and frequency statistics, correlation, coefficients, and step-wise multiple regression procedures. The analysis was organized to correspond with the sequence of the five research questions and related hypotheses presented in Chapters I and III.

The results of this study were presented in the form of descriptive and frequency data to describe the sample and selected inferential techniques to further analyze the data. Finally, post-hoc analyses of critical data were conducted to further understand the results.

Data Collection and Return Rate
This research was conducted between March, 2006 and March, 2007. During March, 2006 a website was established containing the research packets. The SDRC and CARE provided a list of registered students. One thousand students were invited to complete the research packet via the internet. Using 48 weekly intervals, several follow-up e-mails were sent to students. In October, 2006 a pizza party with an opportunity to win an I-pod was held to encourage students to participate in the research study. Another e-mailing campaign was done in February 2007 to include any students that wanted a final opportunity to participate and to increase the number of completed surveys.

After the final round of data collection there were 246 research packets (25%) but upon review of the data, 129 research packets were eliminated from the final analysis due to graduate student classification (7 packets) or incomplete components of the packets (122 packets). The final total sample of 117 university students, an 11.9% return rate was used in the final data analysis.

The initial step in data analysis was to examine the summary statistics which included a descriptive and frequency analysis.

Description of Research Participants
Students were requested to participate by the university disability services and/or academic retention program. More specifically the research volunteers are special admission students who are part of the approximate 1500 students requested by two university special service programs. The research participants were from the a Research I institution of higher education with approximately 40,000 students, located in a midsize Southeastern metropolitan city of approximately 280,000 persons, where its two major economic sectors are government and higher education.
Research participant demographic characteristics are presented in Tables 1 - 5. These tables consist of undergraduate classification, ethnic background, gender, age, age of diagnosis, and socioeconomic status. Of the 117 complete research packets, there was proportionate representation of university students at all four undergraduate levels, which are presented in the table below. The differences could have occurred by chance alone \( x^2 \) \((3, N=117) = 7.28, p = .05\) indicating no classification bias.

Table 1
Distribution of Undergraduate Classification among Sample Participants (Percentages)

<table>
<thead>
<tr>
<th>Classification</th>
<th>N=117</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freshmen</td>
</tr>
<tr>
<td>Sample</td>
<td>31%</td>
</tr>
<tr>
<td>FSU</td>
<td>23%</td>
</tr>
</tbody>
</table>

Patterns begin to develop academically for students admitted under special criteria. One of the key factors of graduating in a timely manner is the number of credit hours enrolled each term. Students admitted under special criteria tend to take fewer credit hours with a notable exception. The students take fewer courses during the academic year due to work requirements or academic ability thus taking longer to complete college (Terenzini et al., 1996).

A substantial majority of the participants were Black (64%). This is a reflection of a trend in higher education where a significant proportion of minority students are admitted to universities under special admission criteria other than race. The next highest level of ethnicity was White (20%). Thirteen percent of the participants were Hispanic and two percent were also Multi-ethnic, which was defined as participants with more than one ethnic background. Asian Americans were the final 2% of the population completing the research packet.

Table 2
Distribution of Undergraduate Ethnicity among Sample Participants

<table>
<thead>
<tr>
<th>Ethnic Background</th>
<th>N= 117</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>White</td>
<td>23</td>
</tr>
<tr>
<td>Black</td>
<td>76</td>
</tr>
<tr>
<td>Hispanic</td>
<td>15</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
</tr>
<tr>
<td>Multi-Race/Ethnic</td>
<td>2</td>
</tr>
</tbody>
</table>

Approximately three-fourths of the participants (76%) were female; and about a quarter (24%) were male. The percentages are not consistent with the male/female ratio of college students attending the university displayed in the table below. The research study is more representative toward females \( x^2 \) \((1, N = 117) = 16.43, p = .05\), which is consistent with data reporting gender breakdown of college attendance. The rate of females attending postsecondary institutions as compared to males is significantly higher. Since 1991, the proportion of young women enrolled in college has exceeded the
enrollment rate for young men (U.S. Census Bureau, 2006). In 2005, women made up 56% or eight million of the undergraduate student population (U.S. Census Bureau, 2006).

Table 3
Distribution of Undergraduate Gender among Sample Participants (Percentages)

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Sample</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>University</td>
<td>44%</td>
<td>56%</td>
</tr>
</tbody>
</table>

The majority of the participants were between the ages of 18 and 20 (64%) and thirty-six percent of the participants were over the age of twenty-one as displayed in the table below. Overall this age data suggests that the study sample is a little younger than general population $x^2 (1, N = 117) = 5.49, p = .025$ of students attending the university.

Table 4
Distribution of Age among Sample Participants (Percentages)

<table>
<thead>
<tr>
<th></th>
<th>18 – 20</th>
<th>21 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Sample</td>
<td>64%</td>
<td>36%</td>
</tr>
<tr>
<td>University</td>
<td>52%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Eleven students (9%) of the 117 who completed research packets indicated that they were diagnosed with a learning disability. Almost half of these (46%) were diagnosed during elementary school, about one quarter (27%) in middle school or high school years, and about one quarter in college, as displayed in Table 5.

Table 5
Distribution of the Age of Diagnosis of Learning Disability

<table>
<thead>
<tr>
<th>Diagnosis Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 10</td>
<td>5</td>
<td>46</td>
</tr>
<tr>
<td>11 – 18</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>19 – 24</td>
<td>3</td>
<td>27</td>
</tr>
</tbody>
</table>

Parental Demographics

Parent demographic information for research participant is presented in Tables 6 - 7. The tables consist of parent involvement in education, mother’s level of education, and father’s level of education. Demographic information provides supplemental information about the participant’s parental influence on education and assumed level of knowledge about the college lifestyle, and how to be successful in the college environment.
The economic status background of the vast majority of participants (87%) was under $60,000 per year. This is consistent with the population of first-generation college students. Thirteen percent of participants reported a family income of more than $60,000.

Table 6
Parents Economic Status According to Participants

<table>
<thead>
<tr>
<th>Economic Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20,000 or Below</td>
<td>40</td>
<td>36</td>
</tr>
<tr>
<td>$20,001 - $40,000</td>
<td>35</td>
<td>31</td>
</tr>
<tr>
<td>$40,001 - $60,000</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>$60,001 - $80,000</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>$80,001 - $100,000</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Above $100,000</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Non-reported</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The majority of the participants (59%) indicated that parents were either very involved (29%) or moderately involved (30%) in their education. However, a large proportion (41%) also indicated their parents were not involved in their education, which is likely higher than parents of most college age students as indicated in Table 7 below. There are several reasons parents may not be involved. These include long work hours, lack of knowledge of the college process, parental education level, and lack of parent confidence in mentoring and advocacy.

Table 7
Student Perception of Parents Involvement

<table>
<thead>
<tr>
<th>Parent Involvement</th>
<th>N = 115</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Involved</td>
<td>47</td>
<td>41</td>
</tr>
<tr>
<td>Moderately</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Very</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td>Non-reported</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

An overwhelming majority of the participants (78%) indicated their mother’s highest level of education was a high school diploma or below. Only 15% of the participants indicated that parents had received a bachelor or graduate degree.

Table 8
Mother’s Educational Achievement According to Participants

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than High School</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>High School</td>
<td>75</td>
<td>64</td>
</tr>
<tr>
<td>A.A. Degree</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>
Similarly, a large majority of the participant’s father’s (83%) earned a high school diploma or less. This is consistent with participant response to mother’s highest level of education. Additionally, six percent of the participants indicated their father’s have an associate of arts degree. In comparison with the mother’s highest level of education the percentages are consistent among both parents. The parental level of educational achievement is likely to be related to the special student status of the participant. Very clearly almost all participants, about 80%, are first generation college students.

The 41% figure of no parent involvement is certainly a perception of the student participant and may or may not represent actual fact. However, with 80% of parents not college educated, or not educated beyond high school, this figure suggests that parents need lots of preparation, empowerment and skills to be credible and effective academic mentors with their young adult family members. It is common sense and likely that students will involve parents more in their education if they believe they are credible mentors. Moreover, parents will likely involve themselves more if they are more competent and confident that they are qualified to influence positive academic progress.

Table 9
Father’s Educational Achievement According to Participants

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than High School</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>High School</td>
<td>69</td>
<td>62</td>
</tr>
<tr>
<td>A.A. Degree</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>B.S. Degree</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Graduate</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Non-reported:</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Research participant utilization of support services, community service, study and work hours are presented in Tables 10 -13. These are very important variables as they detail how frequently students utilize the services offered by the university to assist with retention and graduation. The following table consists of the frequency of which participants utilized specialized support service to aid in retention and graduation. The services include but are not limited to tutorial lab, academic advisors, general assemblies, small groups, counselors, mentors, note-takers, and computer assisted technologies.

Further examination of the utilization of services indicated that approximately half of the participants (54%) utilized the services offered by these programs weekly as illustrated in Table 10 below. Students admitted under special criteria tend to have difficulty with the college instructional system that emphasizes lecture and theory. Although students spend less time in class, the workload is increased and the pace is faster than many are expecting. This can result in students feeling confused and unable to
grasp what they need to do to be successful. Weekly utilization of support services provides student admitted under special criteria the opportunity to develop strategies for academic success. These strategies include academic advising, tutoring, mentoring, time management, stress management, study skills, and test-taking skills.

Table 10
Participant Reported Usage of Students Services

<table>
<thead>
<tr>
<th>Utilization of services</th>
<th>N=111</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
<td>60</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Twice a Semester</td>
<td>23</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Once a Semester</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Twice a year</td>
<td>15</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Non-reported: 6

Table 11 illustrates the number of community service hours participants complete weekly. Community service is an important aspect to student development and encompasses values learned from parents and peers. Students feel a sense of community and belonging that extends beyond the university. Further, students are able to develop a channel to funnel their energy into positive results that improve society.

The overwhelming majority of participants (85%) completed a minimum of one to two hours of community service weekly. Only 17 participants (15%) did not complete any community service hours. Some form of ongoing weekly community service was valued by participants. More than half of the participants (57%) devoted 1-5 hours to community service weekly, 20% spent 10 or more hours in service, and 58% spent more than three hours a week in community service volunteer work. These figures indicate a sincere willingness and commitment to give to others and gain social validation through helping. This is especially commendable given that these are students who are at greater risk academically and are poorer than most of their college peers.

Table 11
Participants Reported Community Service Weekly

<table>
<thead>
<tr>
<th>Weekly Service</th>
<th>N = 112</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 hours</td>
<td>17</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>1 - 2 hours</td>
<td>30</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>3 - 5 hours</td>
<td>33</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>6 – 9 hours</td>
<td>10</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

Table 11 Continued
| 10 or more | 22 | 20 |

Non-reported: 5
Table 12 provides a description of the number of study hours participants spend each week on all their courses. Study hours are indicators, which can help predict academic performance of students. Two-thirds of the students (67%) self report spending less than 12 hours a week studying. This is considerably less than their actual time in class, which would be about 30 clock hours for students taking four courses a semester, well below the universities recommended standard for out of class study time, and likely much less study time than the most achieving students.

It is easy to conclude and suggest that special students at high academic risk would make higher grades if they substantially increase their time studying, perhaps by a factor of three times more. This is a conservative estimate derived from the medium number of student stated study hours (about 10) and the actual class clock hours for students taking four courses a semester (30 hours).

Table 12
Participants Reported Study Hours Weekly

<table>
<thead>
<tr>
<th>Study hours</th>
<th>N = 117</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 6</td>
<td>33</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>7 – 12</td>
<td>45</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>13 – 20</td>
<td>30</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>21 – 28</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>29+</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Half of the student participants (50%) did not work or only worked one-half to one day a week as illustrated in Table 13. The other half worked two or more days a week, which should certainly be a constraint to hours to commit to study time, and, in turn, potentially compromise academic achievement.

Table 13
Participants Reported Work Hours Weekly

<table>
<thead>
<tr>
<th>Work hours</th>
<th>N = 115</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>50</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>4 – 8</td>
<td>7</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>9 – 16</td>
<td>22</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>17 – 24</td>
<td>23</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>25+</td>
<td>13</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Non-reported: 2

A summary of the descriptive data obtained during this study suggested that there were similarities between the participants on the variables of interest that could have an impact on the academic performance of students admitted to a four-year university under special admission criteria. Gender and age were intervening variables that might confound the relationship between non-cognitive factors and grades (GPA). However, analysis of these two variables found they were not related to GPA, thus gender ($r = .103$, $p \leq .05$) and age ($r = -.097$, $p \leq .05$) were not used as control variables.
Results of the Study

The purpose of this study was to examine the extent to which self-efficacy and resilience have an effect on academic performance of college students admitted under special admission criteria. This included the relationship between self-efficacy, resilience, use of services, and perceived parental involvement with the academic performance of students admitted under special admission criteria.

Five research questions were examined. Each research question is answered by a corresponding table in the remainder of Chapter IV. The initial step in the data analysis was to examine summary statistics of demographic information about the participants, which is done in Tables 1-13. The correlation matrix shown in Table 14 indicates the significant relationship between 11 key variables. It shows if there is a significant relationship between the ten independent variables - seven resilience characteristics, self-efficacy, parent involvement and utilization of services - and the dependent variable of cumulative grade point average (GPA).

Table 14
Intercorrelation Matrix among All Key Variables

<table>
<thead>
<tr>
<th>Subscale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Oppct</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Espct</td>
<td>.62**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fopct</td>
<td>.51**</td>
<td>.71**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Copct</td>
<td>.33**</td>
<td>.24*</td>
<td>.17</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sopct</td>
<td>.43**</td>
<td>.40**</td>
<td>.29**</td>
<td>.32**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ozpct</td>
<td>.37**</td>
<td>.51**</td>
<td>.60**</td>
<td>.04</td>
<td>.19**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Prpct</td>
<td>.44**</td>
<td>.42**</td>
<td>.30**</td>
<td>.43**</td>
<td>.23*</td>
<td>.20*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. GPS scale</td>
<td>.39**</td>
<td>.54**</td>
<td>.53**</td>
<td>.35**</td>
<td>.21**</td>
<td>.32**</td>
<td>.31**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Involved</td>
<td>-.03</td>
<td>.12</td>
<td>.05</td>
<td>-.02</td>
<td>.11</td>
<td>.08</td>
<td>-.03</td>
<td>.04</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Services</td>
<td>.02</td>
<td>-.01</td>
<td>-.12</td>
<td>.12</td>
<td>-.01</td>
<td>-.05</td>
<td>.05</td>
<td>.05</td>
<td>-.03</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>11. GPA</td>
<td>-.08</td>
<td>.13</td>
<td>.13</td>
<td>-.08</td>
<td>.02</td>
<td>.05</td>
<td>-.01</td>
<td>.18*</td>
<td>.17*</td>
<td>.05</td>
<td>-</td>
</tr>
</tbody>
</table>

Note:*P<.05, One-tailed; **P<.01 One-tailed; Oppct= Positive: The World, Espct= Positive: Self, Focpt= Focused, Copct= Flexible: Thoughts, Sopct= Social, Ozpct= Organized, Prpct= Proactive

Research Question #1

The initial research question of this study was to determine if there was a relationship between the characteristics of resiliency and the academic performance of college students admitted under special admission criteria. The hypothesis was that college students with higher characteristics of resilience would have higher grade point averages. The non-significant findings are portrayed in Table 15. Hypothesis one was rejected because the research found no significant correlations between the dimensions of resilience and cumulative grade point average.
Table 15
Mean, SD and Pearson Correlation between Dimensions of Resilience and GPA

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oppct</td>
<td>40.75</td>
<td>28.66</td>
<td>-.079</td>
</tr>
<tr>
<td>Espct</td>
<td>61.38</td>
<td>30.62</td>
<td>.127</td>
</tr>
<tr>
<td>Fopct</td>
<td>46.66</td>
<td>29.59</td>
<td>.133</td>
</tr>
<tr>
<td>Copct</td>
<td>29.72</td>
<td>23.76</td>
<td>.077</td>
</tr>
<tr>
<td>Sopct</td>
<td>39.59</td>
<td>26.16</td>
<td>.016</td>
</tr>
<tr>
<td>Ozpct</td>
<td>54.08</td>
<td>30.77</td>
<td>.054</td>
</tr>
<tr>
<td>Prpct</td>
<td>44.54</td>
<td>27.89</td>
<td>-.012</td>
</tr>
</tbody>
</table>

Note: *p<.05, one-tailed; Oppct= Positive: The World, Espct= Positive: Self, Focpt= Focused, Copct= Flexible: Thoughts, Sopct= Social, Ozpct= Organized, Prpct= Proactive

Research Question #2
The second research question was to determine if there was a relationship between self-efficacy and academic performance of college students admitted under special admission criteria. The hypothesis was that college students with higher self-efficacy would have higher grade point averages. Hypothesis two was accepted because the findings portrayed in Table 16, and show that the there was a significant relationship between self-efficacy and cumulative grade point average (r=.181, p<.05).

Table 16
Pearson Correlation between Self-efficacy and GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td>3.32</td>
<td>.46</td>
<td>.181*</td>
</tr>
<tr>
<td>GPA</td>
<td>2.81</td>
<td>.52</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05, one-tailed

Research Question #3
The third research question called for exploring the relationship between use of support services and academic performance of students admitted under special admission criteria. The prediction was there would be a positive relationship between utilization of services and GPA. Hypothesis three was rejected because the findings portrayed in Table 17, indicates that there was no significant relationship between utilization of student support services and cumulative grade point average.

Table 17
Pearson Correlation between Utilization of Services and GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilize Services</td>
<td>2.17</td>
<td>1.61</td>
<td></td>
</tr>
</tbody>
</table>
Table 17 Continued

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td>2.81</td>
<td>.52</td>
</tr>
</tbody>
</table>

*p ≤ .05, one-tailed

Research Question #4
The fourth research question called for investigating the relationship between parent involvement in education and academic performance of college students admitted under special admission criteria. The prediction was that there would be a positive relationship between college students whose parents are more active in their education and grade point averages. The hypothesis was accepted because the conclusion drawn from Table 18 was that there was a significant relationship \((r = .169, p < .05)\) between parent involvement and cumulative grade point average.

Table 18
Pearson Correlation between Parent Involvement and GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Deviation</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Involvement</td>
<td>1.89</td>
<td>.82</td>
<td>.169*</td>
</tr>
<tr>
<td>GPA</td>
<td>2.81</td>
<td>.52</td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .05, one-tailed

Research Question #5
To answer the fifth and final research question, a multiple regression technique was applied to the data. This technique was selected based on its proven ability to identify significant relationships between variables. Specifically, this technique was used to determine if there were significant relationships between the independent variables, self-efficacy and parent involvement, and the dependent variable, academic performance or cumulative GPA. These variables were selected because there was a significant relationship \((p \leq .05)\) to GPA. The analysis does not include the characteristics of resiliency and utilization of services because there was no apparent significant relationship between those variables and cumulative grade point average.

The rationale behind the selection of this technique was based on the purpose of this question which was to determine which of the independent variables employed would best predict the dependent variable of academic performance. Gay & Airasian (2000) suggested that multiple regression techniques would identify the best predictor variables that would contribute to the most additional relevant variance. The findings are portrayed in Table 19.

Table 19
Regression Analysis with Self-Efficacy and Parent Involvement Predicting Cumulative Grade Point Average

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Adjusted</th>
</tr>
</thead>
</table>

38
Table 19 Continued

<table>
<thead>
<tr>
<th>Variables</th>
<th>r</th>
<th>β</th>
<th>t</th>
<th>R</th>
<th>( R^2 )</th>
<th>( R^2 )</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td>.181*</td>
<td>.175</td>
<td>1.91*</td>
<td>.244</td>
<td>.059</td>
<td>.043</td>
<td>.032</td>
</tr>
</tbody>
</table>

Parental involvement was significant \((t=1.78; p < .05)\) in its ability to predict the academic performance of students admitted under special criteria. Self-efficacy was also significant \((t=1.91; p < .05)\) in its ability to predict academic performance of students admitted under special criteria. Using the adjusted \( R^2 \), the predictors account for 4.3 percent of the explained variance in academic performance of students admitted under special admission criteria.

**Additional Findings**

The relationship between descriptive variables reported hours worked, studying and utilization of services indicate a Bell curve affect on participant cumulative grade point average. Specifically, students who indicated a median amount of time (16-20 hours) spent in non-class activities had a higher cumulative grade point average than those who indicated more than 20 hours or less than 16 hours. This result is shown in Tables 20, 21, and 22.

Table 20

**Relationship between Reported Hours Worked and Cumulative GPA**

<table>
<thead>
<tr>
<th>Group</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (1) (n = 48)</td>
<td>2.84</td>
<td>.52</td>
</tr>
<tr>
<td>Med (2-3) (n = 34)</td>
<td>2.84</td>
<td>.49</td>
</tr>
<tr>
<td>High (4-5) (n = 33)</td>
<td>2.71</td>
<td>.55</td>
</tr>
<tr>
<td>Total (n = 115)</td>
<td>2.81</td>
<td>.52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>.421</td>
<td>2</td>
<td>.210</td>
<td></td>
<td>.781</td>
</tr>
<tr>
<td>Within</td>
<td>30.175</td>
<td>112</td>
<td>.269</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30.596</td>
<td>114</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .05, one-tailed*
Table 21
Relationship between Reported Hours Studying and Cumulative GPA

<table>
<thead>
<tr>
<th>Group</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (1) (n = 29)</td>
<td>2.69</td>
<td>.55</td>
</tr>
<tr>
<td>Med (2 - 3) (n = 72)</td>
<td>2.84</td>
<td>.49</td>
</tr>
<tr>
<td>High (4 - 5) (n = 15)</td>
<td>2.91</td>
<td>.56</td>
</tr>
<tr>
<td>Total (n = 116)</td>
<td>2.81</td>
<td>.52</td>
</tr>
</tbody>
</table>

Source

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>.601</td>
<td>2</td>
<td>.301</td>
<td>1.130</td>
<td>.327</td>
</tr>
<tr>
<td>Within</td>
<td>30.058</td>
<td>113</td>
<td>.266</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30.659</td>
<td>115</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 22
Relationship between Reported Utilization of Services and Cumulative GPA

<table>
<thead>
<tr>
<th>Group</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (5 - 6) (n = 16)</td>
<td>2.81</td>
<td>.52</td>
</tr>
<tr>
<td>Med (3 - 4) (n = 18)</td>
<td>2.92</td>
<td>.50</td>
</tr>
<tr>
<td>High (1 -2) (n = 82)</td>
<td>2.78</td>
<td>.54</td>
</tr>
<tr>
<td>Total (n = 115)</td>
<td>2.81</td>
<td>.52</td>
</tr>
</tbody>
</table>
Table 22 Continued

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>.221</td>
<td>2</td>
<td>.140</td>
<td>.522</td>
<td>.595</td>
</tr>
<tr>
<td>Within</td>
<td>30.379</td>
<td>113</td>
<td>.269</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30.659</td>
<td>115</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Summary of Results

Research question one, showed a non-significant relationship between resiliency characteristics and academic performance. Research question number two revealed a significant relationship between self-efficacy and academic performance. In addition, self-efficacy revealed a very significant relationship to the characteristics of resiliency. Utilization of support services revealed no significant relation to academic performance in research question number three. Parental involvement was slightly significantly related to academic performance in research question number four.

Research question number five used a multiple regression analysis to determine the significant relationship of the two independent variables (involvement & self-efficacy) with academic performance (GPA). While parental involvement and self-efficacy are significant they only explain a small amount of variance (4.3%) for the cumulative grade point average. Together the variables explain significant variation but individually they are over the threshold. This means that individually self-efficacy and parent involvement would not have a significant effect on changing the cumulative grade point average.

In Chapter V a discussion is presented incorporating the results with existing literature on the academic performance of college students admitted under special criteria. Also, future research is described to better understand how self-efficacy, resiliency, and demographic factors impact college students admitted under special criteria. Research limitations are also described in Chapter V.
CHAPTER V
DISCUSSION

Introduction

This chapter consists of three components. First, a review of primary and secondary findings is presented. Second, a discussion is offered which targets the findings, limitations and implications of this study. Third, suggestions for future research and practice related to these findings are introduced. The discussion provides potential explanations or interpretation of the findings and then suggests implications that may impact audiences of concern.

The audiences who may be most interested in interpretation and discussion of findings are professionals who work closely with college students admitted to universities through special admission criteria and their families. Such professionals are working in educational support service programs; high school and university administrators and faculty; and state and national legislators and policy makers.

Increasingly, leaders of government and educational institutions are discussing plans on how to deal with the escalating number of college students, and especially those students who are less privileged and at greatest risk relative to retention. Presently, there are 6.5 million first-generation undergraduate students (Pell Institute, 2007), most whom are members of minority groups (Komada, 2002; Quian & Blair, 1999). Enrollment numbers and student needs can only grow as the nation increasingly commits to a culture where status and mobility reflect mastery of knowledge and technology.

Many less privileged students are not sufficiently prepared academically, socially/psychologically, and financially for the transition to college. In year 2006, the state legislature established the ‘First-generation Grant” to assist students financially with their college education. However, the commitment is not longstanding and the grant must be renewed each year by the legislature depending on the state budget. In addition, some level of targeted support from specific local universities and community colleges is aimed at assisting students admitted under special criteria, but, once again, the pattern of support is very recent and conditionally tenuous. Similarly, the infusion of specialized services to support at risk students with disabilities, mostly those who have learning disabilities, only gained momentum in the 1990’s and is tenuously dependent on civil rights legislation like the Individual with Disability Education Act (1975) and American with Disabilities Act (1990).

The current study results offer new and more detailed knowledge of college students admitted under special criteria than was previously documented in literature. The majority of the prior research (Nunez & Cuccura-Alamin, 1998; Pascarella & Terenzini, 1991; Terenzini et. al., 1996) suggested that college students admitted under special criteria are more at-risk of academic dismissal. This study has encouraging complementary findings showing that self-efficacy and parental involvements are associated with grade point average in students admitted under special criteria.

Interpretation of Findings

The study produced two significant findings. The first noteworthy finding, that self-efficacy combined with parental involvement was found to be an important predictor of the academic performance of college students admitted through special criteria, supports a common theme of previous research concerning first-generation college students and college students with learning disabilities (McCarron & Inkelas, 2006;
This is a key finding in that it emphasizes the importance of establishing persistence and involving family in the academic performance of this population of college students. Although self-efficacy and parental involvement are significant, the result needs to be cautiously considered because it only explains a small amount of the variance (adjusted $R^2 = .043$) in cumulative grade point average. However, while effect size appears low, the impact is consistent with prior research (Lounsbury et al., 2003) indicating that non-cognitive variables account for approximately 5% of the variation in cumulative grade point average.

The decision making process during this maturation stage of growth intellectually, psychologically, and socially can be a time of trial and error for students and how they respond can determine whether or not they succeed in future endeavors in college and beyond (Erickson, 1982; Super, 1990). Particularly, retention and graduation can serve to either expand or limit the range of subsequent vocational and educational opportunities available to students. Thus, having self-efficacy and active support from empowering parents is very important in student’s academic and psychosocial development in adolescence and the young adult years, which, in turn, will help create a positive individual contributing to society. Thus possessing self-efficacy and active support from empowering parents seem to be linked in creating a young individual with a positive self-perception and sound decision making skills able to respond positively to the college environment. Both self-efficacy and parental involvement are complicated processes and represent years of effort. The student’s self-belief/determination and likely success reflects their parent involvement.

The second noteworthy finding, documented in Table 14, was that self-efficacy has a positive relationship with personality characteristics of resilience. Although there is limited research discussing a relationship between self-efficacy and resilience, previous research (Lohfink & Paulsen, 2005; Alessandria & Nelson, 2005; Allen, 1999) has examined the effect of persistence, self-esteem, self-identity and motivation on academic performance of college students. However, a relationship with the psychological construct of self-efficacy has not been adequately researched because the characteristics of resilience have primarily been examined in the corporate or business arena (ODR, 1995). Study of the use of characteristics of resilience to predict the adjustment with college students (Bryant, 1995; Wang, 2003; Komada, 2003) indicated significance with certain characteristics only with freshmen and international college students. The studies did not explore a relationship with other personality factors, besides resilience on the academic success of students.

The characteristics of resilience were also examined in the current research as a predictor of cumulative grade point average for college students admitted under special criteria. None of the characteristics of resilience were shown to be a significant influence on cumulative grade point average. However, this may be due to the small number of participants completing the survey. The population for this study was students admitted under special criteria, in which anything that makes them identifiable would seemingly increase the possibility on non-participation. The length of the survey also may have discouraged participation and limited responses. The survey has 75 questions, which can
be intimidating to this population of students and discourage full participation due to time constraints and intrusive questions identifying strengths and weaknesses.

Engle et al. (2006) suggests that utilization of support services play a crucial role in the pursuit of a college degree, probably well before college begins. While prior research (Heiman, & Kariv, 2004; Heiman & Precel, 2003; Hudson & English, 1995; Keim et al., 1996) suggests that utilizing support services upon arrival to campus is important to academic performance, this research study did not show a significant relationship between utilization of support services and cumulative grade point average. The vast majority of students (83%) only utilize support services at least twice a semester which leads to speculation as to the on-going value of services versus only at high points of need such as mid-term and final exams. It is also possible that results would be different if the question were posed more qualitatively such as a Likert scale rating of satisfaction.

Current research suggests that the largest gap between students admitted under special criteria and students admitted through regular admission include academic preparation, economic status, ethnic diversity, and parental involvement in the transition to college (Terenzini et al., 1996; Nunez & Cuccura-Alamin, 1998; McCarron & Inkelas, 2006). This study is consistent with previous research in which the lack of parental educational achievement and parental involvement are significantly correlated. The findings that approximately 80% of the current participant’s parents have a high school diploma or lower educational level is likely closely associated with the finding that most parents of first-time in college students (71%) are only moderately or not involved in their child’s education. One possible explanation for this may be that parents have limited knowledge of the college transition and experience, lack confidence to speak authoritatively, and feel uncomfortable providing guidance in the area.

Interpretation of Additional Findings

In addition, the relationship was explored between hours worked, hours studying, and utilization of services of each individually with GPA by Analysis of Variance (ANOVA) see Tables 20-22. No relationship was shown between hours worked (p ≤ .461) and GPA in the data set. No relationship was shown between hours studying (p ≤ .327) and GPA. Moreover, there was also no relationship shown between utilization of services (p ≤ .595) in the data set. While no significant difference was shown among the groups, the descriptive data indicated that students are involved in campus activities, working and studying. For example, the students participating who were in the high service participation group, or are very involved (82), had a lower GPA than those in the medium group (18). Additionally, another finding indicated that students working 20 hours per week or less obtained a higher GPA’s than students indicating no hours working or student’s working more than twenty hours.

Limitations of Research

Naturally, this dissertation has limitations. The four specifically noteworthy ones are: population sample, participant rate, student perceived length of resiliency scale, and demand characteristics.

A first limitation is the specialized population sampled. It is critical to point out that the sample utilized in this study was drawn from a relatively selective state university in Southeast region of the United States. The two programs from which the population was derived are not available at all four-year institutions or two-year community
colleges. Caution is therefore suggested in application of these results to populations not requiring similar admission and retention criteria.

A second research limitation is the low participant rate. The involvement rate of students admitted through special admission criteria was low despite student incentives and endorsements supporting the research study. Within the two subgroups of the specially admitted students, the rate was the lowest among students with learning disabilities (3%), compared to the participants in CARE (10%). The loss of participants can be expected to reduce the magnitude of correlation, thus creating a serious threat to internal validity.

The fact that most students did not respond to repeated requests or participate in research activities, even with incentive inducements, suggest that any factor that would imply differences from the general population is perceived as negative and limits participation in surveys, as well as in using support services designed. The meaning implied is that many students are not availing themselves with support services designed to help retain and graduate them nearly as much as they can. Students are substantially underutilizing the support services the university has uniquely created to help them be retained as students and become graduates. This is an intrinsic problem with the host, which is the student themselves, and is also a marketing challenge for universities. Psychological terms like denial, disengagement, disincentive, and distancing seem to apply here.

A third limitation in this research may be the length of the resilience questionnaire. This scale consists of 75 items and takes approximately 25 minutes to complete. Considering the very low response rate for students admitted to the university through special admission criteria (1.9%) and the fact that more than half (122) of the research packets were not valid due to incompleteness, it is quite possible that the resiliency measure is too long for this specialized study group.

Some of these individuals have learning disabilities either diagnosed or undiagnosed, and many have below average reading skills (Hall et. al., 2002; Komada, 2002; McCarron & Inkelas, 2006). Regardless of these reasons the low participation rate threatens the ability to generalize the research findings. Perhaps a shorter resilience questionnaire would enhance participation rates in research and lessen incompleteness in responses.

A fourth research limitation, and another possible threat to the internal validity of the study, was demand characteristics. Demand characteristics are cues available to a participant regarding the research study (Frankel & Wallen, 2006). The cues may include information received about the study prior to the start of the study (e.g. rumors, gossip, and/or the personal characteristics of the researcher). The researcher is the Associate Director of the university first-generation retention program and the students may feel obligated or, in contrast may have negative feelings toward the researcher, thus affecting participation either positively or negatively. This threat to internal validity is considered data collector bias or a data collector characteristic.

Suggestions/Improvements for Future Research

Continued and increased research is needed on students admitted to college through special admission criteria. First the existing knowledge base is inadequate, due to the topic being under studied and to resistance to participate. Second, the trend to admit first-generation, economically disadvantaged students with/without disability is
certain to continue to increase because higher educational attainment is the main avenue to socio-economic mobility in the 21st century (Nunez & Cuccura-Alamin, 1998).

Using a larger sample size in future studies could yield more representative and significant results. This would help to increase the generalizability of the findings, and allow for a more robust examination of predictors of academic performance. Understanding factors that result in low participation of student admitted to universities under special criteria is paramount in yielding a larger sample. Could it be that this population of students does not see the value of research in this area? Could it be the students do not want to be considered a special case? Was the incentive appropriate?

There were several attempts made to encourage students to participate in this research study, including a monetary incentive, pizza party, raffles, and encouragement from the directors of the special programs. One could speculate that students admitted under special circumstances want to be considered normal. They do not want to be identified with special population group or as a special case: Meltzoff (1998) has called this process is called normalization.

There is likely substantial value in direct personal administration of the survey in future research. The participants would benefit from personalized prompting and encouragement to increase their motivation and counter individuals succumbing to inertia or entropy by not completing critical survey measures. Providing short-term interventions for term or yearly GPA can increase participation and examine the effectiveness of services provided to students admitted to the university under special criteria. Research on the reluctance or resistance to participate by students utilizing multiple quantitative methodologies, case studies, and focus groups can assist future researchers.

Another issue affecting research is the accessibility of students when they become upper classmen. Accessing students at the freshmen level during the orientation or transfer orientation time period will provide a more motivated group to complete the surveys in a timely and uniform manner. Future research can follow GPA progression through growth projection using the same variables to explore self-efficacy and parental involvement. Perhaps parental involvement changes over time? What extent are these variables associated with satisfaction of student educational experience with the University?

Further research using the Resilience Questionnaire may be of value as well. Revisions or development of a short form are suggested to decrease participant apprehension of long surveys. This procedure might allow for an increased return rate among the reluctant participants. It would also call for additional instrument design to retain the validity of the instrument.

A revision to the demographic questionnaire is also suggested to clarify the degree in which students utilize support services offered on campus. This might provide a better analysis of the relationship between utilization of services and academic performance.

Pairing the personality survey with a cognitive survey might assist in determining the significance of characteristics in relation to academic performance. This could add to the strength of personality instruments and assist in determining the relationship between the predictors and cumulative grade point average. Perhaps use could be made of
pertinent archival data such as SAT or College Level Academic Skills Test (CLAST) exam scores?

Additional research, both situational specific and longitudinal, could be done to explore the retention and graduation rates of students admitted under special criteria. Future studies of first generation college students with individuals with learning disabilities as a subcomponent in the group might provide important information. This could allow for a more in depth discussion on strategies to employ prior to and during a student’s transition to college. Having a better understanding of such factors may, in turn, increase the effectiveness of support programs and encourage students to utilize the services provided by universities for assisting with retention and graduation rates. This could reduce the number of student dropping out of college and earning at a significantly lower economic level than a college graduate. It might likely promote work span employment in the generative years (Erikson, 1982; Super, 1996) that resembles a more satisfying economic career versus a less satisfying sequence of loosely connected jobs.

Implications for Practice

The impact of a college degree affects more than the individual, it improves the life of a family financially, psychologically, and socially. Student’s admitted by special admission criteria are at a disadvantage from the onset. Choy (2001) indicated that most students (90%) admitted through special admission programs are ethnic minorities. The elimination of affirmative action in the admission procedures has increased special admission criteria programs across the nation. Universities are having difficulties creating the desired diverse environments that are representative of U.S. society. Whether it is through the development of special programs or revamping already existing programs strides must be made to provide an environment that encompasses diverse experiences and allow for interactions between students of different backgrounds.

One suggestion for those who come into contact with high school students might be to not only encourage them to attend college but also to follow-up with them as they pursue college. Begin college preparation orientation to students and parents in middle school and actively in the sophomore year of high school. Development and evaluation of support services programs that are available at the high school level and incorporating parent involvement by providing information on college preparation could assist this population of students. Support groups and mentors for parents of first-generation students will also provide a valuable tool in reducing the information gap for these parents and build student and parent confidence. The ability to discuss their apprehensions concerning their lack of knowledge about the college process and develop mentoring skills could further build parents confidence and better prepare them for discussion about higher education with their peers and other children. Early intervention could help increase opportunities for access to postsecondary education and enhance the likelihood of successful transition to college. Postsecondary education of all kinds needs to be considered as a family affair and responsibility versus only for the graduate of high school.

Enhancing Self-efficacy

Empowerment of students and parents through peers, individually, as groups, and through personal mentoring may be of great value. An array of talented and trusted mentors exist if we look to the extended family and natural support systems to assist, by example and by sharing their own experience, strength and hope in progressive higher
educational achievement. Enhancing self efficacy should be a focus of all individuals involved with education. As with goals and performance standards, the situation is best when one’s perceived self-efficacy is in line with one’s true capabilities (Hergenhan, 1994). Student perceptions that they cannot perform, when in actuality they are capable of achievement, inhibits personal growth and experience. Similarly, thinking one can do more than they actually can often result in frustration. Research performed by Bandura (1986) has demonstrated that persons with high perceived self-efficacy demonstrate the following characteristics: set more challenging goals and performance standards, persist longer in the pursuit of goals, are more venturesome in their behavior, recover more quickly from setbacks and frustrations, and experience less fear, anxiety stress, and depression. These characteristics can be taught, mentored, and examined in students admitted to universities under special criteria and their parents so as to increase recruitment, retention, graduation and parental involvement.

**Enhancing Parental Involvement**

It would be helpful if college and university faculty and administrators were aware of current trends affecting student retention and graduation. Exploration of various differences that affect the persistence of students admitted under special criteria compared to the general population of students could help develop strategies that would eventually lead to an academic community reinforced by mentoring from faculty and peers.

Parents play a critical role in the successful transition to higher education for all students. Enhancing their role can be accomplished in many ways beginning with early education and mentoring about preparing students for college admission. The university collaborates with guidance counselors and parents to inform them of requirements for admission to universities. The university has established programs to assist disadvantaged high school students with tutoring, mentoring, and college preparation. The university promotes a family atmosphere and encourages parental participation through college orientation, correspondence, daily updates of website, and numerous Parents’ Weekend activities throughout the school year. The impact of parental involvement should not be minimized on the performance of students academically and socially. The small effects that parental involvement have on students extended over time potentially become large effects that have a lifetime impact.

**Summary**

This study adds an important dimension to the literature on predictors of academic performance. The results of this exploratory study provided information regarding college students admitted under a special criteria program. These findings have supported and extended prior research. This study revealed that self-efficacy and parental involvement have a significant impact on cumulative grade point average.

For other researchers interested in this field of study, several topics of interest are provided in the prior sections. It is also suggested that this study be replicated in a variety of postsecondary settings to contrast the predictors of academic success at two year institutions and other four year institutions. The contents within the appendices should be evaluated as appropriate tools to utilize by those interested in research in this area. Future research could include a longitudinal study to address the affects of personality and cognitive predictors on cumulative grade point average.
APPENDIX A

Cover Letter
Dear Student,

My name is William Hudson and I am writing to request your voluntary participation in a study that can assist students with learning disabilities. I am a doctoral candidate doing my dissertation under the direction of Professor R. William English in the College of Education at the Florida State University. I am also a FSU staff member who serves students as Associate Director of the Center for Academic Retention and Enhancement (C.A.R.E.). The purpose of this study is to examine the relationship between two motivational factors self-efficacy and resiliency with respect to academic performance of college students admitted under special criteria. The results from the study may: (1) Influence educational/school support services in the retention of students; (2) Provide useful information to middle and high school programs dedicated to the transition of students to college and help foster positive transition; (3) Help parents assist students with learning disabilities; and (4) Assist universities in establishing more effective orientation practices and early advisement.

This involves the completion of two survey questionnaires and a demographic questionnaire on-line or via the postal service. The estimated time to participate the study is approximately 45 minutes. You will be contacted via e-mail and through the mail, which will include letters of support from the FSU Assistant Dean of Students and the FSU Dean of Undergraduate Studies. Access to archival information will be available to the researcher only. Your participation in this study is completely voluntary. If you choose not to participate or to withdraw from this study at any, there will be no penalty and it will not affect the availability of services provided to you. The results of the research study may be published, but your name will not be used. Your confidentiality is important and is assured. The surveys will be destroyed after the study is completed. Results will only be reported in terms of groups and not by individuals.

If you have any questions concerning the research study, please contact me at (850) 644-9699 (whudson@admin.fsu.edu) or Dr. R. William English at (850) 644-2227 (english@coe.fsu.edu).

Return of the questionnaires will be considered your consent to participate. Upon completion of the surveys participants will be entered into a raffle for a $100.00 first prize, a $50.00 gift certificate to Dillard’s, or a $25.00 dinner coupon. Post-study results dissemination and debriefing will occur during an ice cream social prior to the raffle. An invitation will delivered via e-mail to all participants. Thank you so much!

Sincerely,

William E. Hudson Jr.
APPENDIX B

Endorsement Letter From:

Dr. Karen Laughlin

Dean Undergraduate Studies
December 20, 2005

Dear Florida State University Student,

I am writing to request your assistance and support through participation in a promising and important dissertation study. This research project will provide useful information regarding student motivation and achievement and will give us an opportunity to assess and improve the services we provide to Florida State University students. The goal of this study is to generate information that will enhance students' academic success and help them progress toward graduation.

Completing this study should only take a few minutes of your time. I hope you will agree to participate. Your thoughtful responses will be very much appreciated.

Sincerely,

Karen Laughlin, Ph.D.
Dean of Undergraduate Studies
APPENDIX C

Endorsement Letter From:

Angela Richardson

Director, Center for Academic Retention and Enhancement
December 20, 2005

Florida State University Students

This is to invite your participation and support of a very important study to take place here on campus within the next few weeks. Specifically, it is a dissertation research project that will provide a better understanding of ways to promote undergraduate student progress and success academically.

It is important to have feedback from students to help make this study a valid one, and I hope that you will be willing to help. Essentially, you are asked to complete a brief survey that will take only a few moments, but which will provide critical information.

Your perceptions and opinions are extremely valuable to this study and we very much appreciate your response. Thank you in advance for your cooperation.

Sincerely,

[Signature]

Angéla C. Richardson
Director
Center for Academic Retention & Enhancement
APPENDIX D

Endorsement Letter From:

Bea Awoniyi

Director, Student Disability Resource Center
December 12, 2005

The Human Subjects Committee
Florida State University
Tallahassee, FL 32306

Please accept this letter in support for Mr. William E. Hudson’s dissertation, entitled "The relationship between self-efficacy and resiliency with respect to academic performance of college students with learning disabilities."

This study has potential to provide information regarding students who have learning disabilities and the results will allow us to assess and potentially improve the services and resources we provide to students. We will provide assistance to Mr. Hudson to connect with students but take necessary and appropriate steps to maintain confidentiality.

If you have any question please contact me a call at (850) 644-9566.

Sincerely,

Bea Awoniyi
Assistant Dean and Director
APPENDIX E

Informed Consent Agreement
INFORMED CONSENT AGREEMENT

I, ______, freely and voluntarily and without undue inducement or any element of force, fraud, deceit, duress, or other form of constraint or coercion, consent to be a participant in the research project entitled "The relationship between self-efficacy and resiliency with respect to academic performance of students admitted under special admission criteria." I understand the purpose of the research is to ascertain influential factors on the academic performance of college students with learning disabilities.

I understand that the answers I provide to this survey will be kept confidential by the extent allowed by law and treated as such. I also understand that the recording of results will be done in aggregate or group form and my answers and answers of others will be used strictly for research purposes.

I understand that this consent may be withdrawn at any time without prejudice, penalty or loss of benefits to which I am otherwise entitled. I have been given the right to ask and have answered any inquiries concerning this survey. In the future, I understand that I may contact William Hudson Jr. at (850) 556-8157 or Dr. R. William English at (850) 644-2227 for answers to questions about this research or my rights.

I have read and understand this consent form. I am 18 years of age or older.

Student Signature ___________________________ Date __________

I understand my rights as a human subject. If I have any questions about my rights as a human subject I will contact the Florida State University Institutional Research Board at (850) 644-8633.
APPENDIX F

Institutional Review Board Approval
Office of the Vice President For Research  
Human Subjects Committee  
Tallahassee, Florida 32306-2742  
(850) 644-8633 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 2/24/2006

To:  
William E. Hudson  
5609 Mossy Top Way  
Tallahassee, FL 32303

Dept.: EDUCATION

From: Thomas L. Jacobson, Chair

Re:  
Use of Human Subjects in Research  
The Relationship Between Self-Efficacy and Resilience with Respect to Academic Performance of Students with Learning Disabilities

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 Human Subjects Committee at its meeting on 1/11/2006. Your project was approved by the Committee.

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 1/10/2007 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. 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: Dr. William English  
HSC No. 2006.0003
APPENDIX G

Student Demographic Questionnaire
STUDENT DEMOGRAPHIC QUESTIONNAIRE

Please provide all demographic information requested below.

1. Student Classification: Grad ___ Senior ___ Junior ___ Sophomore ___ Freshman ___


4. Gender: Male _____ Female _____

5. What best describes your ethnic background?
   _____ White            _____ Black
   _____ Asian           _____ Native American
   _____ Hispanic       _____ Multi-Race/Ethnic
   _____ Native Hawaiian/Other Pacific

6. Parent’s gross annual income:
   _____ $20,000 or Below      _____ $60,001 – $80,000
   _____ $20,001 – $40,000    _____ $80,001 - $100,000
   _____ $40,001 - $60,000    _____ Above $100,000

7. What was your age when you were officially diagnosed with a learning disability?____

8. Please check what comes closest to the frequency you have used the services of the
   Student Disability Resource Center (Examples: Note-takers, tutors, technology lab,
   transportation, extended test time, secluded areas, readers, writers)?

   Weekly ___       Twice a Semester ____    Twice a year____
   Monthly ___     Once a Semester ____    None ____

9. The past academic year check which services you have used at least once.

   Library ___       Help Centers____       Counseling Center ____ Tutoring ____
   Counseling Center ___ Academic Advisors ____ Computer Lab ___
   Leach Center ____ Career Center ____     Center for Civic Education ___
10. Please check the number of hours you spend each week in community activities
(Examples: Religious services, clubs, organizations, volunteering).

0 hours 1-2 hours 3-5 hours 6-9 hours 10 or more

11. Please check how much paid work do you do weekly?

None 4-8 hours 9-16 hours 17-24 hours 25+ hours

12. Please check the extent of your parents involvement in your education here at
FSU.

Not Involved Moderately Very
Not Involved

1 2 3 4 5

13. Please check the number of study hours you spend each week in all your courses?

0-6 7-12 13-20 21-28 29+

13. What was your parent’s highest level of education?

A. Mother: B. Father:

Less than High School Less than High School
High School High School
A.A. Degree A.A. Degree
B.S. Degree B.S. Degree
Graduate Graduate
APPENDIX H
Copyright Permission Form
Personal Resilience Questionnaire
Dec. 19, 2005

To whom it may concern:

William Hudson has secured permission to use the Personal Resilience® Questionnaire in his dissertation research. Please contact me if you need more information. You can reach me at 404-564-4803 or linda.hoopes@connerpartners.com.

Sincerely,

Linda L. Hoopes, Ph.D.
Senior Vice President
Conner Partners
APPENDIX I

Perceived Academic Self-efficacy Scale
PERCEIVED ACADEMIC SELF-EFFICACY SCALE

1) I can always manage to solve difficult academic problems if I try hard enough.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

2) If someone opposes me educationally, I can find means and ways to get what I want.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

3) It is easy for me to stick to my aims and accomplish my educational goals.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

4) I am confident that I could deal efficiently with unexpected academic events.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

5) Thanks to my resourcefulness, I know how to handle unforeseen academic situations.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

6) I can solve most school problems if I invest the necessary effort.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

7) I can remain calm when facing academic difficulties because I can rely on my coping abilities.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

8) When I am confronted with a school problem, I can usually find several solutions.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

9) If I am in academic trouble, I can usually think of something to do.
   (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true

10) No matter what comes my way academically, I'm usually able to handle it.
    (1) not at all true, (2) barely true, (3) moderately true, (4) exactly true
APPENDIX J
Personal Resilience Questionnaire
PERSONAL RESILIENCE® QUESTIONNAIRE

This questionnaire is designed to assess several characteristics related to personal resilience. The items do not have right or wrong answers. Your answers should reflect what you believe to be true.

On the Personal Resilience® Answer Form, fill in the circle that best shows how much you agree or disagree with each item according to the scale below. When you have finished, complete the Special Codes section and the Mailing Information section on the back of the form — we need this information to process your data accurately and return your feedback promptly. We would appreciate your taking the time to fill out the Background Information section also; this information is used for research purposes only.

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tasks that don't have a simple or clear-cut solution are fun.</td>
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<tr>
<td>2</td>
<td>I like myself.</td>
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<tr>
<td>3</td>
<td>Stressful situations are no time for joking.</td>
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<td>4</td>
<td>I am committed to getting what I want out of life.</td>
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<td>5</td>
<td>If a day starts out badly, things will probably be bad all day.</td>
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<td>6</td>
<td>I am comfortable in a variety of social situations.</td>
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<td>7</td>
<td>Questions that don't have a right answer are really frustrating.</td>
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<td>8</td>
<td>It's easy for me to become depressed and unexcited about things.</td>
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<td>9</td>
<td>I feel at ease fairly quickly with most people.</td>
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<td>10</td>
<td>If I read, I tend to stick to favorite magazines or familiar authors.</td>
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<tr>
<td>11</td>
<td>If you want to be happy, you will be happy.</td>
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<tr>
<td>12</td>
<td>There are people in my life who sometimes turn to me for support and advice.</td>
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<tr>
<td>13</td>
<td>People find me cheerful and happy.</td>
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<tr>
<td>14</td>
<td>I prefer to stick to tried and true clothing styles.</td>
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<tr>
<td>15</td>
<td>I am willing to take a few risks to get what I want.</td>
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<td>16</td>
<td>I have a lot of confidence in myself.</td>
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<td>17</td>
<td>I usually wake up in the morning excited about what the day will bring.</td>
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<td>18</td>
<td>I can solve any problems I am faced with.</td>
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<td>19</td>
<td>I have one or more very close friends who I can tell my most private thoughts to.</td>
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<tr>
<td>20</td>
<td>I use lists a lot to remind me of all the little things that need to be done.</td>
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<tr>
<td>21</td>
<td>When times are tough, I focus my attention on a brighter tomorrow.</td>
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<tr>
<td>22</td>
<td>I am a creative person.</td>
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<tr>
<td>23</td>
<td>One thing I'm really good at is making sense out of confusing situations.</td>
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<tr>
<td>24</td>
<td>I am happiest when I've established a predictable routine in my life.</td>
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<td>25</td>
<td>Other people see me as an optimist.</td>
</tr>
<tr>
<td>26</td>
<td>I don't feel comfortable sharing my most private thoughts with anyone.</td>
</tr>
</tbody>
</table>

Please turn over and complete ▶

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I can think down the road five years and picture what I will be doing.
I feel anxious when I'm with people I don't know well.
I try not to rely on others for anything; self-sufficiency is my goal.
In my work and home, everything has a place and everything is in its place.
I don't understand people who make jokes about serious issues.
I am often reluctant to ask others for help in a difficult situation.
I am always trying to learn new things or find ways to improve myself.
My life is a mess right now and I don't know which direction to head.
I hate to make schedules and then have to stick to them.
I prefer things that are symmetrical — that is, completely balanced.
My life has no direction or purpose.
I feel alone in the world.
I feel good about the things I have done with my life so far.
I'm good at coming up with clever solutions to fix machinery, resolve conflicts, or mend other things that aren't working right.
I don't manage time well — it's always slipping away from me.
If I had a big, messy stack of papers in front of me, I am confident that I could organize them into some sensible system.
I maintain my focus on achieving my goals even when there are obstacles in my path.
It's impossible for me to turn off troublesome thoughts; once I get a negative idea in my head, I can't think about anything else.
I feel confused and indecisive when trying to make important decisions in my life.
When I'm going somewhere, I sometimes will take a different route or path just to see what's there.
When I picture my "ideal self," I'd have to say that the way I really am is not very much like it.
When a crisis occurs in my life, I can keep my focus and get myself back on track.
When I am around other people, I am often the one who starts things happening.
Sometimes one new piece of information will completely change how I see a situation.
My friends would gladly help with my transportation or offer a place for me to stay if I ever needed it.
I have lost out on opportunities because I couldn't make up my mind about what I wanted.
My achievements so far have been a result of hard work and discipline.
The things I am doing in my life right now are an expression of my personal goals and aims.
I don't have a clear sense of what my skills and abilities are.
I prefer to try new restaurants and unusual dishes when I eat out.
I think more often about the things that can go wrong in the world than I do about the things that can go right.
You should always make a detailed plan before trying to overcome a complex problem.
I'm not capable enough to do the things I'd like to do.
I am able to focus my attention on what I'm doing without getting sidetracked easily.
Challenging myself to do something extremely difficult seems like a waste of energy.
I am powerless to change the things in my life I don't like.
I have a system for organizing the clothes in my closet that I could explain to someone else.
Traveling to a country where I don't know the language really doesn't sound good to me.
When it comes to resisting temptation (for example, a dieter resisting a delicious, rich dessert), I have a great deal of willpower.
I prefer to know exactly what I'm supposed to do rather than figure it out as I go along.
I often jump from one project to another rather than finish one all the way through.
When everything is going well for me, I worry because I know that something bad is bound to happen.
Other people are better at thinking of creative ways to get things done than I am.
I am currently working on several projects that I am very committed to.
I spend time prioritizing work or activities before I actually begin.
Even without a clock or watch, I can guess the time of day with a high degree of accuracy.
I frequently comparison shop and have an excellent memory for prices.
I enjoy working on the operational aspects of a project — the details for execution, sequence of events, etc.
I am very good at administrative tasks such as scheduling and organizing.

Leave items 76 through 80 blank on your scan form.

**BACKGROUND INFORMATION:** This information is used for research purposes only.

1. What is your age? (Please fill in the appropriate area on the scan form.)
2. Are you
   A. Male
   B. Female
3. Are there children under 18 in your household?
   A. Yes
   B. No
   C. Sometimes
4. What is your marital status?
   A. Single
   B. Married
   C. Living with partner
   D. Divorced
   E. Widowed
   F. Other
5. How often do you exercise?
   A. Never
   B. Rarely
   C. Occasionally
   D. Weekly (on the average)
   E. 2 times/week (on the average)
   F. 3 or more times/week (on the average)
6. What is the highest educational level you have completed?
   A. Eighth grade or below
   B. Some high school
   C. High school graduate
   D. Some college or other post-high school education
   E. Two-year college degree
   F. Four-year college degree
   G. Master's or equivalent degree
   H. Ph.D. or equivalent degree
7 Which of the following best describes your job position?
A. Top management
B. Middle management
C. Supervisory
D. Non-managerial
E. Self-employed
F. Not employed outside the home

8 What is the main type of work you do?
A. Managerial
B. Professional Specialty
C. Technical Support
D. Sales
E. Administrative Support
F. Service
G. Outdoor (Farming, Fishing, etc.)
H. Precision Production, Art or Craft
I. Manual Labor
J. Other

9 What is your occupational title?

10 How would you describe your mood today?
A. Extremely positive
B. Somewhat positive
C. Neutral
D. Somewhat low
E. Extremely low

11 Are you:
A. Right-handed
B. Left-handed
C. Ambidextrous

12 Which of the following best describes your life over the past year?
A. It has been completely predictable and stable.
B. I've had a few ups and downs, but it's mostly been pretty stable.
C. One or two major positive and/or negative events have taken place.
D. A number of major positive and/or negative events have taken place.
E. It has been a year of almost constant disruption and change.

13 Compared to other people you know, how difficult a childhood did you have?
A. Much more difficult
B. Somewhat more difficult
C. About the same
D. Somewhat easier
E. Much easier

14 How many times in your life have you made a move of over 50 miles?
A. Never
B. Once or twice
C. Three to five times
D. Six to ten times
E. Eleven or more times

15 Would you describe yourself as a religious or spiritual person?
A. Extremely
B. Highly
C. Moderately
D. Somewhat
E. Not at all

16 How many children have been born or adopted into your household?
A. None
B. One
C. Two or three
D. Four to six
E. Seven or more

17 Which of the following best describes the relationship between your occupation and the other parts of your life (recreation, home, family, etc.)?
A. I keep my work completely separate from the rest of my life.
B. I keep my work mostly separate from the rest of my life.
C. My work and my other activities overlap to some extent.
D. My work and my other activities overlap to a great extent.
E. My work is so intertwined with the rest of my life that I can't tell where one ends and the other begins.

18 How would you rate your own level of resilience in general?
A. Much higher than average
B. Somewhat higher than average
C. About average
D. Somewhat lower than average
E. Much lower than average

Thank You
REFERENCES


Individuals with Disabilities Education Act (IDEA) of 1997, PL 94-142.


BIOGRAPHICAL SKETCH

William E. Hudson Jr., a native Floridian, and graduate of Florida A&M University, received his B.S. degree in Psychology and Masters Degree in Counseling Education. He went on to receive a Specialist Degree in Counseling and Human Services from the Florida State University. Mr. Hudson is the Associate Director of the Center for Academic Retention and Enhancement (C.A.R.E.) at the Florida State University.

He has served as Associate Director for over eight years. The art of maneuvering a full time position and doctoral assignments, with staff and varying duties proved to be challenging and at times quite rewarding. In addition, he serves on several university-wide committees such as the University Retention Committee, the University Recruitment Committee, the College Orientation Steering Committee, the Vice-President of Student Affairs Central Staff, the First-Year College Experience Committee, and the CARE Admission Committee (a committee responsible for ensuring the admission of first generation or economically disadvantaged students). He has supervisory responsibility for the CARE Summer Bridge Program, Students Supporting Students Grant Program, Upward Bound Program and serves as an active member of the Council of Informed Advisors.

In his current position as Associate Director, he is responsible for the advocacy, administration and delivery of student support services. These services range from academic advising, career services, first year programs, undecided and/or undeclared majors, developmental education, small course sections, admission appeals, and include services to special populations such as athletes, nontraditional students and students with special needs.

As the Associate Director of the Center for Academic Retention and Enhancement he is also involved in the development, implementation and monitoring of the University Retention Initiative. This university-wide initiative requires coordination and collaboration between all schools and colleges of the University. His responsibilities include, but are not limited to reviewing, tracking, and the summarizing of admission, retention, progression and graduation forecasting reports. The Council of Informed Advisors which he serves on manages all academic advising, training, and information distribution within the Division of Undergraduate Studies.

Mr. Hudson has a varied amount of teaching experience at the undergraduate and graduate level. The courses he has taught include Counseling & Case Management, Counseling Theories, Helping Strategies and CASE Management in Rehabilitation, and Introduction to Rehabilitation. In addition, he continues to teach the First-Year Experience course.

He has supervised Master’s degree students from the Florida State University’s Rehabilitation Counseling Program, Educational Psychology Program, and Bachelor’s level interns from the Florida State University’s Social Work Program.

He has been involved in the advocacy for students during the admission process, provision of accommodations, monitoring to ensure retention, college orientation, and advisement. He also corresponds (orally and written) with potential students, parents of potential students, service providers at universities, community colleges, high schools, and various community agencies and organizations. He has developed and coordinated
programs and programmatic budgets, monitored expenditures and adjusted said budgets by way of budgetary amendments when deemed necessary.

Mr. Hudson also serves as the advisor to the Student Supporting Students Mentoring Organization. This organization mentors incoming freshmen and assists with socialization, assertive skills, and community involvement. He has served in this capacity for nine years and has seen the organization thrive in membership.

Mr. Hudson continues to collaborate with various departments on campus such as the Office of Admissions, the Registrar’s Office, Office of Financial Aid, and University Housing as well as various student organizations. He has developed a strong working relationship with the Athletic Department and has met periodically with the campus police to discuss various student related concerns.

At the time of the defense of this dissertation, he was continuing his career at the Florida State University promoting recruitment, retention, and graduation of students.