An Examination of the Career Possible Selves Construct as a Mediating Variable between Institutional Support Services Effectiveness and an Adult Student's Motivation to Persist

by

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Abstract

Community colleges have historically played a central role in providing the "nontraditional" student with opportunities to realize their educational and vocational goals. Open-door policies, convenience of location, opportunities to participate in distance education, affordable tuition, and flexibility in class scheduling have made the two-year college system an accessible option for students who are considered nontraditional by virtue of their age (24 years or older), socioeconomic status, or other latent at-risk factors (Horn, Neville, & Griffin, 2006). In spite of the steady gains of nontraditional student enrollment at both four year and two year college levels, low persistence and completion rates have demonstrated that access does not necessarily mean success (Bailey & Alfonso, 2005; Horn, Nevill, & Griffin, 2006).

The purpose of this research study was to examine the career possible selves construct as a mediating variable between institutional support services effectiveness and an adult student's motivation to persist at one community college in the southeastern United States. A researcher-developed survey instrument and demographics questionnaire were used to measure adult students' perception about the services available at their institution, their career intentions, and their motivation to persist. A sample population of 108 (N=108) adult students participated in study.

Partial correlation (p_r) analysis was used to examine the relationships among career possible selves, institutional support services effectiveness, and an adult student's

motivation to persist. ANOVA analysis was conducted to measure whether or not there were statistically significant differences among four demographics factors as they related to the overall score from the survey.

Accordingly, the results from the research showed that the relationships among the career possible selves construct, institutional support services effectiveness, and an adult student's motivation to persist are statistically significant when all three variables are present. However when the career possible selves construct was controlled, the institutional support services effectiveness and an adult's motivation to persist variables did not show a statistically significant relationship. Additionally among the within group factors, gender was the only factor that indicated a statistically significant difference in the overall survey score.

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List of Abbreviations

AACC	American Association of Community Colleges
ACCI	Adult Career Concerns Inventory
APLM	Adult Persistence Learning Model
CCTI	College Career Transition Initiative
NCES	National Center for Education Statistics
USDE	United States Department of Education

CHAPTER I

INTRODUCTION

Introduction

Community colleges have historically played a central role in providing the "nontraditional" student with opportunities to realize their educational and vocational goals. Open-door policies, convenience of location, opportunities to participate in distance education, affordable tuition, and flexibility in class scheduling have made the two-year college system an accessible option for students who are considered nontraditional by virtue of their age (24 years or older), socioeconomic status, or other latent at-risk factors (Horn, Neville, & Griffin, 2006). Strategies to improve accessibility have been successful as demonstrated by the steady and projected increase of nontraditional students in postsecondary education. The National Center for Education Statistics (Choy, 2002) reported that in1999, enrollment in postsecondary education for all students swelled by 72% in comparison to 1970. Specifically, in 1970 fall enrollment was 7.4 million compared to 12.7 million in 1999. Of the 12.7 million enrolled during that year, 43% were adults over 24 years of age (Berker, Horn, & Carroll, 2003).

In an analysis report of the conditions of nontraditional students in postsecondary education, Choy (2002) found that students with any nontraditional traits (socioeconomic, age, at-risk factors) accounted for almost 73% of all students enrolled

in college. Of the 73% enrolled, 69% of the students who were considered highly nontraditional (possessing all three major traits), attended community college. Attrition patterns, as reported by Choy (2002), indicated that nontraditional students, 47% versus 22% of traditional students, are more likely to leave postsecondary education without attaining their bachelor's or associate's degree. Additionally, nontraditional students seeking an associate's degree, 27% versus 53% of traditional students, were less likely to earn a degree. In a most recent study conducted in 2003-04, nontraditional-aged students who were 24 years and older represented 53% of enrollment at public community colleges versus 35% at four year colleges (Horn, Nevill, & Griffith, 2006; Provanisk & Planty, 2008).

In spite of the steady gains of nontraditional student enrollment at both four year and two year college levels, low persistence and completion rates have demonstrated that access does not necessarily mean success (Bailey & Alfonso, 2005; Horn, Nevill, & Griffin, 2006). Thus, the challenge for two-year colleges' administrators is no longer about recruitment or widening accessibility to programs; it is identifying variables that affect attrition and developing appropriate strategies to increase the persistence and completion rates of the students that they serve.

Nontraditional adult students attend college for a variety of reasons. Cyril Houle's seminal works on the motives behind adult learning suggested that nontraditional students who are 24 years or older can be characterized by three categories: goal oriented, activity oriented, and learning-oriented (Aslanian & Brickell, 1980; Brookfield, 1986; Gordon, 1993; Knowles,1990; Knowles, Holton, & Swanson, 2005; Merriam & Caffarella, 1991; Patrice, 1981). Goal oriented learners use education

as a means to an end. Usually the ends for adult college students result in an achievement of certification, degree, or additional job skills (Choy, 2002; Horn, Nevill, & Griffin, 2006). Activity oriented learners participate in learning to gain knowledge of specific activity and is driven primarily for social connections. Learning oriented learners are knowledge seekers who enjoy learning for the sake of learning. Of the three types of learning objectives, goal oriented learning is best understood and the most cited reason to attend college (Gordon, 1993; Knowles, Holton, & Swanson, 2005).

Typically, adults who decide to pursue postsecondary education for the sake of achieving a goal are known to do so in response to life transitions (Aslanian & Brickell, 1980; Bauer & McAdams, 2004; Bee, 1987; Compton, Cox, & Laanan, 2006; Knowles, 1990; Knowles, Holton, & Swanson, 2005). Life transition for adults is defined as changing from one life stage to another in response to either internal or external changes, and sometimes both (Aslanian & Brickell,1980; Bauer & Mott, 1990; Bee, 1987; Merriam, 2005). External changes for adults in transition are often reflected in limited job opportunities, divorce, loss of a loved one, birth of new child, children leaving home, etc. Internal changes include a shift in self concept, dissatisfaction with current accomplishments, or a need for self-improvement.

In relationship to adult learning, Aslanian and Brickell (1980) contended that most adults who pursue learning activities for reasons of achieving a goal do so as a means of abandoning one set of circumstances for a better set of conditions. Usually the circumstances include career changes or advancement to fulfill a need to be esteemed. Therefore, adults who pursue postsecondary education with an objective of achieving a degree or skills certification do so in response to external and internal

changes (Aslanian & Brickell, 1980; Bee, 1987; Merriam & Caffarella, 1991; Patrice, 1981). Reponses to life changes, according to Aslanian and Brickell (1980), typically triggers a readiness to learn and the motivation to achieve knowledge. The skills and knowledge that are acquired are often applied to resolve conflicting life issues (Aslanian & Brickell, 1980; Bye, Pushkar, & Conway, 2007; Compton, Cox, & Laanan, 2006; Knowles, 1990).

An adult learner's readiness to learn, the need to know, self-directedness, life experiences, internal motivation, and problem-solving orientation are a set of assumptions about the adult learner that were developed by Knowles (1990). The assumptions, not to be confused with theories, are to inform researchers and practitioners of how adults make meaning out of their learning experiences (Kiely, Sandmann, & Truluck, 2004; Knowles, 1990; Thoms, 2000). Explicitly, adults develop a readiness to learn based on timing and life circumstances (Knowles, 1990). Knowles (1990) asserted that timing is essential in this task because it implies that the learner has the maturity and need to learn something new. The need to know is a corollary of an adult student's goal to learn something useful. Adult learners' self-concept is tied to their perception of themselves as being responsible and self-directed. Adult students also bring a rich repertoire of experience to the classroom which allows them to make connections to new material (Brookfield, 1986). Adults who pursue a college education have specific plans for how they are going to use their education and thus are considered to be highly motivated to succeed (Eppler, Carsen-Plentl, & Harju, 2000). Finally, adults learning orientations are task centered that revolve around current life issues and roles (Galbraith & James, 2002).

Goal oriented learners are assumed to be learners who are ready to learn, have a sense of self-directedness, motivated to learn, aware of the benefits of learning, and resourceful in getting what they need to complete a task (Bushy, 1992). The inference drawn from Knowles's set of assumptions is adults who attend college for goal oriented reasons have definite objectives that they want to accomplish and are highly motivated to persist through to their goals (Bye, Pushkar, & Conway, 2007; Chartand, 1992). Learning for the nontraditional-aged student, according to Chartand (1992), is a functional task as opposed to an expressive task that is mostly characteristic of traditional students. According to Elliot and Dweck's (1988) student achievement motivation model, there are two types of achievement goals: performance oriented goals and learning oriented goals. Performance oriented goals are based on a student's need to learn just enough to receive positive feedback and avoid harsh judgment. Students who are learning-oriented are functional learners who attempt to master competence in an area to increase their knowledge base. Eppler, Carsen-Plentl, and Harju's (2000) study on achievement motivation goals found that adult students were most likely to use learning oriented approaches to achieve their educational goals. Furthermore, the research suggested that learning oriented goals are most consistent with persistence, problem solving strategies, and enjoyment of challenges. However, patterns of persistence and completion among nontraditional-aged students are incongruent with these theories (Choy, 2002). A model that focuses on identifying and erecting a bridge between nontraditional students' achievement learning goals and institutional support services as they relate to persistence is in need to close the gap

between motivation and education program completion (Bailey & Alfonso, 2005; Cabrera, Nora, & Castaneda, 1993).

The only conceptual model that focuses on the characteristics of nontraditional students and a trajectory to attrition is the Bean and Metzner's (1985) model of nontraditional student attrition. The model described the drop-out process that used some factors found in traditional student attrition models and various behavioral theories. Unlike traditional student models of persistence that cited student involvement through college residential experiences as a key to minimize attrition (Fike & Fike, 2008), the Bean and Metzner's model of nontraditional student attrition focused on four sets of variables which included background, academic, environmental and psychological outcomes as determinants of attrition.

The set of elements described in the Bean and Metzner model are intricately tied to the characteristics of adult learners (Bean & Metzner, 1985; Halpin, 1990; Knowles, 1990; Stahl & Pavel, 1992). Background variables such as educational goals, high school performance, ethnicity, and gender are factors that are salient or most common with all learners. In relationship to the adult learner, Bean and Metzner (1985) contended that background factors like age and learning differences can place the adult student at greater risk for attrition if not addressed immediately by the institution. The age and educational goals variables coincide most with Knowles's (1990) adult learners' self-concept, life experiences, and problem centered characteristics. The formerly stated characteristics assume that the learner has reached a level of maturity from life experiences to determine the best course of action for their academic pursuits.

Environmental variables are considered to be another set of major at-risk factors that included finances, hours of employment, outside encouragement, family responsibilities, and the opportunity to transfer. Problem-centered and motivation characteristics as they relate to the environmental variables are best expressed by a dilemma when an adult is no longer stimulated by their present job or life circumstances. In order to resolve their problem, the adult is prompted to change their situation by enrolling in a class or educational program at a local college (Aslanian & Brickell, 1980). The objective for pursuing this course of action according to Bee (1987) is to resolve a conflict in self concept. For example, a mother in her 40s who is no longer fulfilled by working in the home because her children are in school for most of the day sees an opportunity to resolve her conflict by internalizing and acting on the encouragement she receives from her friends and family to return to school. She develops a plan to use her free time during the day to take business classes at the local community college. As an adult learner, the mother is motivated to enroll in college as a means to solve a life issue of finding personal fulfillment. Environmental factors such as outside encouragement and a modification in family responsibilities served as motivators to solve a problem.

The psychological variables cited in the nontraditional student attrition model addressed the usefulness of the education program in relationship to career objectives, satisfaction with personal progress, commitment to the goal of finishing the program, and levels of stress encountered by adult students. Knowles's (1990) readiness to learn, self-concept, and need to know characteristics support Bean and Metzner's (1985) psychological outcomes of goal commitment and utility. The readiness to learn and

self-concept characteristics are in essence, the catalysts behind initiating the process of the educational journey. Chartand (1990) asserted that the readiness to learn characteristic is a developmental task that is consistent with Bean and Metzner's psychological variable of goal commitment. Additionally, readiness to learn and a sense of usefulness are predictors of persistence (Bean & Metzner, 1985; Chartand,1990). Knowles's (1990) need to know characteristic also complements the goal commitment variable because it implies that adults who pursue a college degree or certificate intend on mastering the knowledge for application. Once an adult learner determines that a college degree can help him advanced in the workplace, according to the nontraditional attrition model, the commitment to persist is stronger (Bean & Metzner, 1985; MacKinnon-Slaney, 1994; Tinto, 1987). Understanding the connection between Knowles's (1990) characteristics of adult learners and the elements found in Bean and Metzner's (1985) model of nontraditional student attrition provides insight on the missing links between institution support services effectiveness and a student's intent to depart from school (Plimmer & Schmidt, 2007).

Goal oriented learning for the adult student is about possibilities (Rossiter, 2007b). The nature of helping adults to learn, or as Knowles (1990) has coined it andragogy is a facilitative process that involves guiding the adult learner to realize their highest potential and become what they have always imagined themselves to be (Galbraith, 2004; Rossiter, 2007a). The possible selves construct is a self-concept variable that explores the self in future orientations (Markus & Nurius, 1986). The construct, a relatively new concept, is considered as a link between learning goal orientation and the motivation to persist toward goal completion (Erikson, 2007;

Plimmer & Schmidt, 2007; Rossiter, 2007; Thorne, 1963). Markus and Nurius (1986) postulated that the possible selves construct is one of few constructs that attempts to relate an individual's performance to their belief in what is possible for them to become. Grounded in behavioral, social cognitive, and working self-concept theories, the possible selves construct focuses on the self as constantly responding and evolving according to life's circumstances. As a behavioral construct, acknowledging the possible selves concept encourages individuals to take appropriate actions through self-regulation to accomplish their desired selves and avoid their undesired selves (Pizzolato, 2006). Markus and Nurius's (1986) specific definition of the possible selves construct as influenced by social cognitive theories states that "Many possible selves are the direct result of previous social comparisons in which the individual's own thoughts, feelings, characteristics, and behaviors have been contrasted to those of salient others. What others are now, I could become" (p. 954). Succinctly stated, possible selves are manufactured as a result of our social observations and experiences in society. The working self-concept as it relates to the possible selves construct informs the current self of past and present self-conceptions that support or threaten our future selves. The process of the working self-concept according to Markus and Nurius (1986) "can be viewed as a continually active, shifting array of available knowledge" (p. 957).

The possible selves construct is useful for understanding the adult learner across the life span which can aid adult educators with apprehending the effects of life transitions on career choice (Cross & Markus, 1991). Ultimately, the possible selves construct can assist college administrators and faculty with closing the gap between

where students are now to where students desire to become upon completion of their educational program (Babineau & Packard, 2006; Markus & Nurius, 1986).

Statement of the Problem

Research efforts are numerous in describing the unique characteristic differences between traditional and nontraditional students and in explaining the major variations in learning styles and orientations, student outcomes, and enrollment/completion patterns (Bailey & Alfonso, 2005; Bowl, 2001; Bushy, 1992; Chartand, 1990; Choy, 2002; Compton, Cox, & Laanan, 2006; Donaldson, 1999; Donaldson, Graham, Martindill, Long, & Bradley, 1999; Eppler, Carsen-Plentl, & Harju; Eppler & Harju, 1997; Graham, 1996; Graham & Donaldson, 1999; Graham, Donaldson, Kasworm, & Dirkx, 2000; King, 2002; Horn & Griffith, 2006; Kasworm, 2003; Kinsella, 1998; Laanan, 2003; Lawler, 1991; MacKinnon-Slaney, 2001; McGivney, 2004; Quimby & O'Brien, 2004; Sandler, 2002; Stahl & Pavel, 1992; Taniguchi, 2005; Terry, 2006). However, Bailey and Alfonso (2005) argued that there is still a dearth of inferential research on nontraditional students' persistence and completion at two-year institutions. Models of effective retention strategies, e.g. learning communities, required student success courses, and first year orientations, have been tested and deemed successful with traditional students on residence and some non-resident campuses (Bailey & Alfonso, 2005; Bean & Metzner, 1985; Fike & Fike, 2008; Halpin,1990; Stahl & Pavel,1992; Tinto, 2000). In contrast, Bailey and Alfonso (2005) concluded that because so few studies were conducted at two year non-resident colleges, the effectiveness of these models on community college campuses is inconclusive. Moreover, most of the research conducted did not test or account for causal relationships of intrinsic mediating

variables that affect persistence among nontraditional students (Bauman, Wang, DeLeon, Kafentzis, Zavala-Lopez & Lindsey, 2004; Compton, Cox, & Laanan, 2006; Fike & Fike, 2008; Hensley & Kinser, 2001; MacKinnon-Slaney, 1994; Scott, Burns, & Cooney, 1998). The problem addressed within this study is the lack of literature on an intrinsic mediating variable as an effect on the relationship between the effectiveness of institutional support services and the motivation to persist among nontraditional students at a community college.

Purpose of the Research

The purpose of this study was to explore the relationship of the career possible selves construct as a mediating variable between institutional support services effectiveness and the motivation to persist with adult students attending one public two-year commuter college in the southeastern United States. Supporting literature that addresses the possible selves construct as a mediating variable of institutional support services and the motivation to persist among adult students is unknown. Alternatively, much of the research that has been conducted focused on direct paths to attrition using mostly traditional students at residential four year colleges. This study focused on the relationship between institutional support variables and the motivation to persist with nontraditional students at a two-year commuter community college. It used the possible selves construct as the mediating variable that will examine separately the direct relationship to institutional support variables and the motivation to persist. Finally, the study investigated how the possible selves construct mediates the institutional support services effectiveness and motivation to persist.

Research Questions

The following research questions directed the study:

1. What is the relationship, if any, between institutional support services effectiveness and nontraditional adult students' motivation to persist?
2. What is the relationship, if any, between the career possible selves construct and institutional support services effectiveness?
3. What is the relationship, if any, between the career possible selves construct and nontraditional adult students' motivation to persist?
4. What are the relationships, if any, between institutional support services effectiveness, career possible selves construct, and nontraditional adult students' motivation to persist?

Significance of the Study

The significance of this study is tri-fold. First, in the limitations and future research section in Bean and Metzner's (1985) treatise on the nontraditional student attrition model, it suggested that "Due to the large number of paths and the dearth of path analyses using nontraditional students as subjects, indirect effects were not discussed in detail. Future researchers should study indirect effects to enrich our understanding of the dropout process" (p. 529). This study is significant due to the representative samples that were surveyed and the exploration of a mediating variable in the path analysis of the persistence process.

Second, in examining institutional support services effectiveness, research must account for variables that mediate between the services provided and the intended student success outcome (Bailey & Alfonso, 2005; Bean & Metzner, 1985). The

institutional support services variable has been known to directly influence a student's overall satisfaction with the college process which in turn influences retention (Bean & Metzner,1985; Stahl & Pavel, 1992). However, institutional services can only provide adult students with initial external strategies needed to persist (MacKinnon-Slaney, 1994). Taking advantage of such services throughout the duration of their educational pursuits is solely up to the individual student (Keith, 2007). Mandatory or required services like academic advising in most community colleges is limited to providing students with a degree plan and registering students for classes (Chao, 2007). Hence, career counseling and development is left up to the student to pursue in most cases. Examining variables that mediate the effectiveness of institution services and adult students' motivation to persist can inform the adult education profession of the magnitude of career development for adults (Bauman, Wang, DeLeon, Kafentzis, Zavala-Lopez, & Lindsey, 2004; Imel, 1986; MacKinnon-Slaney, 1994; Rossiter, 2007).

Third, the possible selves construct is a powerful variable that has a direct effect on motivation, self-regulation, and achievement (Oyserman, Bybee, & Terry, 2006; Oyserman, Bybee, Terry, & Hart-Johnson, 2003; Pizzolato, 2006). Regarding the possible selves construct, Rossiter (2007a) stated that it, "offers a useful and largely unexplored framework for understanding adult learning as the medium through which change, growth, and goal achievement occur throughout the life course" (p. 5). Conversely, because of the assumption that the adult learner is motivated, self-directed, task-centered and thus has a readiness to learn, educators focus more on developing cognitive skills as opposed to helping nontraditional students with non-academic tasks

such as developing future career selves (Inglehart, Markus, Brown, & Moore, 1987; Leonard, 2002; MacKinnon-Slaney, 1994; Oyserman, Bybee, & Terry 2006; Plimmer & Schmidt, 2007). Comprehension of this variable as a powerful predictor of persistence can influence community college policy makers to implement career development throughout the curriculum as a strategy to reduce attrition.

Assumptions

1. Participants in the study understood and were aware of their career possible selves.
2. Participants answered the questions truthfully and accurately.
3. The researcher developed instrument is a valid instrument.
4. The *Possible Selves Questionnaire (PSQ)* is a valid instrument for assessing participants' possible selves.
5. The *Noel-Levitz Student Satisfactory Inventory (SSI)* is a valid instrument for assessing participants' experiences with the campus' support services.
6. The *Adult Career Concern Inventory* is a valid instrument for assessing participants' intentions to depart from the institution.

Limitations

1. The study was limited to nontraditional students at one community college in the southeastern United States.
2. Not all participants enrolled in a community college are interested in completing certificates or degree programs. Some students attend to gain job skills credit.

3. Participants, because of socioeconomic factors of being first generation students, may not have the social context to form future career orientations that are greater than their current selves.

Definitions of Terms

The following definitions are critical terms used specifically for this study and are provided to enhance or delineate terminology. All terms, unless developed by the researcher, have citations.

1. Adult- any person who has a self-concept of being responsible for their lives and self-directed (Knowles, 1990).
2. Adult Career Concerns Inventory- a measure of adults' perception of their career stage based on Donald Super's theory of career development (Perrone, Gordon, Fitch, & Civiletto, 2003).
3. Andragogy- the art and science of teaching adults (Knowles, 1980).
4. Attrition- a diminution of students who enroll the subsequent semester and complete his or her intended program of study (Bean & Metzner, 1986; Hagedorn, 2006).
5. Career- a sequence of related occupations based on life roles, training, and education. It is a comprehensive process that is centered on an individual's self-concept (Osipow & Fitzgerald, 1996).
6. Career education- provides technical knowledge and skills in conjunction with curriculum that are needed to prepare students for specific professions or paraprofessions that do not require a baccalaureate (Levesque, Laird, Teitelbaum, Alt, & Librera, 2000).

7. Career development- a process of assisting a student with career decision making through a combination of personal counseling, career assessments, and academic advisement.
8. Career Possible Selves- a person's "hoped for" or desired career self.
9. Community College-an institution of higher education that provides educational programs that lead to Associate Degrees, Technical Certifications, and workforce training credit.
10. Commuter College- a college or university that does not provide on-campus living arrangements for students.
11. First generation student- a student whose parents did not complete a four-year degree.
12. Junior College- a generic name ascribed to earlier two-year colleges. It originally described institutions of higher education that offered the first two-years of collegiate instruction which were usually branches of four-year universities (Cohen & Brawer, 2003).
13. Institution effectiveness- an institution of higher education' ability to positively affect persistence through the provision of academic support and student development services.
14. Motivation to persist- the intent of enrolling subsequent semester until the completion of a student's declared program of study.
15. Noel-Levitz Student Satisfaction Inventory- an instrument that measures students' satisfaction and priorities (Noel & Levitz, 1998).

16. Nontraditional-aged student- any adult student 24 years of age and older (National Center for Education Statistics as cited in Choy, 2002).
17. Persistence- subsequent enrollment at an institution each semester until the completion of a student's declared program of study (Bean & Metzner, 1985)
18. Possible selves construct- "self-knowledge that pertains to how individuals think about their selves that we would very much like to become" (Markus & Nurius, 1986, p. 954).
19. Possible Selves questionnaire- An instrument developed by Markus (1987) that measures students hoped for or future selves in a variety areas ranging from the physical self to the career self.
20. Retention- interchanged with the term persistence.
21. Traditional-aged student- any student between the between the ages of 17-23 years old.

Organization of Study

This study is organized into five chapters. The introduction, statement of problem, purpose of the research, research questions, significance of the study, assumptions of the study, limitations, and definition of terms were presented in Chapter I. Chapter II consisted of the review of literature related to (a) the overarching roles that American community colleges have played in educating nontraditional students, (b) characteristics of the adult learner, (c) theories of motivation, (d) a nontraditional student attrition model, (e) and the possible selves construct. Chapter III described the methods used which include the development of the research instrument, sample population, data collection process, and the analysis of the data. Chapter IV

detailed the analyses and findings that resulted from the study. Chapter V presented conclusions, implications, and recommendations for practice and future research.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The purpose of this study was to explore the relationship of the career possible selves construct as a mediating variable between institutional support services effectiveness and the motivation to persist with nontraditional-aged students attending one public two-year community college in the southeastern United States. This chapter provides a review of literature related to the history and overarching roles of the community college, characteristics of the nontraditional student, educational motivation, a nontraditional student attrition model, and the possible selves construct.

Specifically, the chapter begins with a historical overview and the present conditions of community colleges in the United States. Subsequent to the overview, the chapter provides a detailed explanation of the following nontraditional student characteristics: (a) fundamental differences between traditional and nontraditional students, (b) adult life transitions and stages, (c) assumptions about the adult learner, (d) adult college students' persistence patterns, and (e) adult career development. Thirdly, a delineation of the evolution of theories in educational motivation is presented. Following the discussion on motivation, Bean and Metzner's nontraditional student attrition models is explained. Finally, Markus and Nurius's possible selves construct is examined.

Historical Overview of Community Colleges

Community colleges, an intricate piece of fabric in higher education history, have always been a gateway to a better quality of life and social-economic change for many Americans (Cohen & Brawer, 2003). Open-door policies, convenience of location, opportunities to participate in distance education, affordable tuition, and flexibility in class scheduling have made the two-year college system an accessible option for students who are considered "nontraditional" by virtue of their age (24 years or older), socioeconomic status, or other latent at-risk factors (Choy, 2002; Hoachlander, Sikora, & Horn, 2003). The progression of the two-year college system and its mission to serve a diverse student body dates back to the early colonial colleges when access was reserved for the affluent white male, the classics were taught as the curriculum, and programs were four years in length (Diener, 1994). The goal of higher education during that time was to nurture a group of elite young men to become future civic leaders, clergymen, lawyers, and doctors (Cohen, 1998; Diener, 1994; Perkins, 1997). At the turn of 20th century, a post-agricultural world demanded a change in curriculum to meet a new industrialized world. In response to the demands for a more technologically trained workforce, land grants, known as the Morrill Acts of 1862 and 1890, were birthed to transform the classical curriculum to one that included instruction in agriculture and the mechanical arts (Diener, 1994).

The end of World War II also ushered in changes to how higher education was administered. For instance, the newly enactment of the G.I. bill of 1947 opened the doors for many "nontraditional" citizens to access education beyond the high school diploma (Cohen, 1998; Cox, 1995). As a result of labor market demands and an

increase in access to higher education, a bridge between compulsory education and higher education was conceptualized. Finally, after decades of redefining its overarching roles, community colleges have transformed from pre-collegiate institutions that served as liaisons between high schools and universities to an organized higher education system which provides all citizens access to associates degrees, technical certification, adult education, and lifelong learning opportunities.

The term "community college" represents the evolution of the roles the two-year college now plays in American society (McGrath & Spear, 1991; Ratcliff, 1994). As high school enrollment swelled during this emerging era, so did the need to provide high school graduates with alternatives to the four-year college trajectory. Ironically, four-year colleges and universities struggled with retention of students beyond the first two years of colleges (Cohen & Brawer, 2003; Deiner, 1994). On the one hand, four-year postsecondary institutions needed to retain their freshmen and sophomore programs as a means of encouraging students to persist to the junior and senior years. On the other hand, because the first two years of college were usually consumed with preparing the student for advanced collegiate studies, universities considered the responsibility of remediating and preparing adolescent students for college level work a compromise to their prestigious roles of research and scholarship (Cohen & Brawer, 2003; Ratcliff, 1994).

Consequently, secondary school systems welcomed and found a need to expand their high schools to include 13th and 14th grades (Cohen & Brawler, 2003; Diener, 1994). The expansion of the secondary school system provided pre-adults with the opportunity to receive preparation for upper level collegiate pursuits and vocational

training. Thus, secondary systems developed a new model of education that offered a 6-4-4 approach to education (Deiner, 1994). It comprised elementary instruction from first to sixth grade, compulsory high school that served students in the 7th through 10th grade, and a college preparatory academic program that provided instruction in 11th to 14th grade. The major threat to this practice was the compulsory age edict that was enforced in most states. The statute mandated school attendance for all youngsters 16 years and younger. Thus, continuation of school beyond the compulsory age threatened enrollment in grades 13th and 14th despite its appeal of preparation for enrollment to upper level academic programs. Additionally, high schools that offered collegiate courses still had to compete with the senior four-year institutions since four-year universities did not want to totally relinquish the first two years of their four-year programs (Cohen & Brawer, 2003). In light of the opposition and challenges, most secondary systems finally chose to expand its vocational education as a means of assisting pre-adult students with entering the workforce. Hence, a need to provide a link between compulsory secondary education and senior level four-year postsecondary education birthed the idea of a postsecondary educational system that would serve as a non-compulsory precursor to upper-collegiate education and vocational training. In addition to the new system providing vocational training and remedial coursework, the two-year college system became the roots for student guidance and counseling (Cohen & Brawer, 2003).

The historical accounts that led to the organization and expansion of the early junior colleges are a matter of which side of the debate one chooses to acknowledge asserted Pederson (1997). Critics of the two- year college system believed that the two-

year colleges' mission and purpose was the machination of the wealthy elite (Pederson, 1997; Ratcliff, 1994). The appeal of its vocational training for the immediate workforce and academic remediation attracted citizens who could not afford or did not aspire to obtain the baccalaureate degree. Strategically located in the heart of cities and within close proximities of towns and rural areas, community colleges were most popular with homemakers, older adults, and minorities who often found themselves marginalized in traditional senior institutions (Ratcliff, 1994). According to Pederson (1997), opponents accused community college leaders with having an aim to deter the poor and disenfranchised from pursuing four-year degrees that could lead them to upward mobility. Critics further claimed that by keeping a segment of society undereducated, it minimized the competition for professional positions that were systematically reserved for the offspring of the affluent class.

On the other side of the debate were the proponents of the junior college. Advocates believed that the two-year system opened the doors of access for all citizens who felt left out of the higher education movement (Diener, 1994). Pederson (1997) found that these early supporters of the junior colleges system subscribed to the notion of postsecondary education, regardless of the level of attainment, as an expression of the democratic process.

In addition to the debate over the underlying purpose of the two-year college, historians have deliberated over the major influences of the early community college (Cohen & Brawer, 2003; Diener, 1994; Pederson, 1997; Ratcliff, 1994). One view held by some historians is that the establishment of the junior college system was mostly influenced by the universities (Cohen & Brawer, 2003; Pederson, 1997). Cohen and

Brawer surmised that university leaders encouraged the development of junior colleges as a way to build to a bridge for adolescent high school graduates who were too immature and academically ill-prepared for four-year colleges. The idea was to establish a two-year college system to serve as filler for the academic deficiency gap between secondary and postsecondary education. In addition to providing new high school graduates with preparation for upper division coursework, junior colleges were also charged with the role of developing curricula that provided a diverse student body with academic skills necessary for success at a four-year university.

Alternatively, Pederson (1997) and Ratcliff's (1994) summation of the community college system's major influences included the impact of the changing economy and local leadership in the townships where the colleges were located. The claim asserted that civic leaders partnered with school superintendents to develop a two-year system that would be regionalized like other public entities such as hospitals, libraries, and municipal courthouses (Pederson, 1997). Civic leaders were charged with having an overarching aim that was tied to financial gain and governance of the two-year system. However, civic leadership claimed their only interest was to regionalize services as a means to addressing the needs of residents and stimulating the economy. The latter objective contended Pederson, was the most influential force behind the establishment of the two-year college.

Regardless of which account one chooses to accept as the major influence of the two-year college system, Cohen and Brawer (2003) agreed that the two-year college system in the United States is like no other in the world because of its efforts to increase access for all. An examination of community colleges in other countries showed that

the functions are similar to the functions found in American community colleges; however, the variety of educational programs and community services provided by community colleges in foreign countries are not as comprehensive. Furthermore, Cohen and Brawer stated that the years of compulsory education in other countries are less than the years in the United States.

The origin of the first junior college is traced back to the expansion of secondary grades beyond compulsory age (Cohen & Brawer, 2003). High schools that took on the challenge to provide expanded curricula beyond the 10th grade had the responsibility of providing advanced coursework that would fully prepare students for upper collegiate courses. In Pederson's (1997) treatise of the origin of the first junior college, it reported that standardization of collegiate courses offered at various high schools is what prompted the identification of the first two-year college. According to Pederson, in the late 1800s, an esteemed professor from the University of Michigan wrote a summative report lauding Illinois' Joliet Township High School for its meticulous post-high school curriculum that included the classic teachings of Latin. The college prep courses offered at Joliet were considered to be equitable to the courses taught during the first two years at a four-year university. In the report, Joliet graduates were exceedingly prepared for admission to upper collegiate programs. As a consequence of the summative report, transference of credits from burgeoning junior colleges to four-year systems were the beginning of university influence on the two-year systems. Furthermore, standardization of curricula became an early form of accreditation that public universities used to regulate the quality of courses which transferred from junior colleges to four-year colleges. In the 1920s the practice of course and credit oversight

through standardization was supplanted by a more rigorous and comprehensive accreditation process.

As the surge of two-year colleges heightened in the early 1900s, so did the need to define their role in the American education system (Cohen & Brawer, 2003). Despite two-year colleges' early efforts to be recognized as accredited institutions of higher learning, attempts were made by the newly established U.S. Office of Education to differentiate "real" colleges from arbitrary postsecondary institutions that were rapidly developing (Diener, 1994). According to Diener (1994) and Pederson (1997) the subterfuges to undermine the system's efforts were immediately derailed by political and educational forces. In response to two-year colleges' need to organize and establish themselves as a unified force, the Association of Junior Colleges was founded in 1920 (American Association of Community Colleges [AACC], n.d.). The role and mission of the association gave a voice to two-year institutions that struggled for identity (AACC, n.d.; Cohen & Brawer, 2003). For example, in the 1950s and 1960s, the expression "junior college" mostly described private two-year colleges or universities' lower branches operated by the church (Cohen & Brawer, 2003). The term "community college" emerged in the 1970s as the dominant idiom that described any comprehensive two-year institution which was accredited to award associates in arts and sciences degrees, technical certification, and lifelong learning opportunities. Accreditation to award degrees is the main feature that distinguishes the community college from vocational schools and adult education centers.

Throughout the 20th century community colleges evolved from a postsecondary link between secondary and four-year colleges to a comprehensive system that focuses

on developing services as a means to meeting the needs of citizens and local business and industry (Cohen & Brawer, 2003). Historically, education has always been the moderator between social order and society ills. In the burgeoning development of community colleges, the initial idea for a two-year system was to prepare students for upper-collegiate work and increase access for all citizens (Pedersen, 1997). In reaction to the demand to provide all citizens with an alternative to the four-year college track, community and school leaders developed a plan that was inclusive and responsive to the unique needs of a diverse population (Cohen & Brawer, 2003; Diener, 1994; Pedersen, 1997). As a consequence of the two-year system efforts to close the gap between education and community service, higher education has gained valuable insight on how to respond to the whole student and provide citizens with opportunities to acquire skills that are needed to compete in the workforce. Thus, student services on the community college level has become the most prominent force that binds the goals of providing comprehensive educational programs and services to citizens within the community with the objectives of producing a highly qualified and capable labor force (Cohen & Brawer, 2003; Diener, 1994).

Student services as a function of community colleges extends beyond the *in loco parentis* role that was common to the early American colleges (Jarvis, 2006; White, 2007). The idea of in loco parentis a Latin phrase that denotes "in place of a parent" in the college system originated from the practice of ancient universities when the average age of a college student was 14 (Cohen, 1998; White, 2007). A function of the headmasters in ancient European higher education models was to provide moral development and behavior modification to the young scholars who were away from

home (Perkins, 1994). Cohen contended (1998) that early American colleges not only adopted the teachings of the classic curricula from the European models; the originators of higher education in the United States also adopted the function of acting in place of the parent to young scholars who were residents on college campuses. The explicit practice of in loco parentis actually derived from American higher education law (White, 2007). In 1913, a law was enacted to give colleges and universities the authority to act on the behalf of the parent in situations of discipline, guidance, and protection. White explained that over the course of the 20th century, the law evolved from a broad spectrum of major oversight of students to minimum supervision which holds colleges and universities accountable to students for sponsored events held on and off campus. The tradition of in loco parentis is also enforced in the form of the passage of the Federal Educational Rights Privacy Act which allows university personnel to disclose pertinent information about a student under the age of consent to a parent.

Conversely, the original role of student services in community colleges began with more concern for student development than student discipline (Cohen & Brawer, 2003). The multilayered challenges of recruitment, persistence, student guidance, career development, and community development have situated the two-year college system in a unique position to provide services that aimed at addressing the whole student. Specifically, Cohen and Brawer explained that community colleges approach to student services encompasses six distinct areas: (a) recruitment and retention, (b) counseling and guidance, (c) orientation, (d) extra-curricula activities, (e) vocational/career education and (f) remedial education.

According to Cohen and Brawer (2003), recruitment and retention are the driving forces behind sustaining the overall mission of the two-year college system. The objective of the early founders of the two-year system was to promote education persistence beyond the compulsory age. A strategy used in the early community colleges that continues in contemporary colleges is the recruitment of students while they are still enrolled in high school. For example, the dual enrollment agreement offered in most school systems allows high school students to earn secondary and postsecondary credit simultaneously. Another example of college persistence efforts is the transfer component that most two-year colleges have in accordance with four-year universities. The transfer practice allows credits earned at the community college level to be accepted at senior institutions (Hagedorn, Moon, Cypers, Maxwell, & Lester, 2006; Hoachlander, Sikora, & Horn, 2003).

Counseling and guidance in postsecondary settings according to Cohen and Brawer (2003) have its roots in the community college system. In an effort to address their diverse student body, community colleges found it necessary to develop tactics that would match students' interests and abilities to appropriate academic programs. Assessments, student interviews, and an analysis of students' past academic achievement were used to help student guidance personnel to determine how to best assist students in their educational pursuits. Consequently, counseling and guidance at the two-year level is at the crux of retention and the promotion of students to senior-level universities (Cohen & Brawer, 2003; Hoachlander, Sikora, & Horn, 2003).

Orientation to college life was another overarching role that four-year college leaders had in mind for the original community colleges (Pedersen, 1997; Ratcliff,

1994). The thrust behind the early conceptions of a two-year system was universities' reaction to the decline in students' educational persistence beyond the compulsory age (Diener, 1994; Pedersen, 1997; Ratcliff, 1994). The initial orientation curriculum at community colleges comprised information that assisted the student with successful matriculation (Cohen & Brawer, 2003). Orientation sessions ranged from one-day retreats to term-long coursework. The ultimate goal of this familiarization process was to retain students through to the completion of their associate degree and provide support with transferring to senior level institutions. Contemporarily speaking, most community colleges' orientations have evolved to mandatory credited courses where students become fully indoctrinated of the campus life in an effort to retain students. Hence, orientation continues to play a major role in acclimating students to the rigor and expectations of all levels of collegiate life in a supportive environment (Cohen & Brawer, 2003).

Student involvement in extra-curricula activities is one of the major differences between four-year colleges that enroll mostly traditional students and two-year colleges that cater to primarily nontraditional students (Bean & Metzner, 1985; Cohen, 2003; Choy, 2003; Hoachlander, Sikora, & Horn, 2003; Horn, Neville, & Griffin, 2006; Lanaan, 2003). Student involvement on a college campus according to Astin (1999) and Chickering (2003) is integral to student persistence. The population that the community colleges attract is least likely to become involved in campus activities (Chartand, 1992; Cohen & Brawer, 2003). Engagement for students on community college campuses mostly involved activities that are related to current adult issues (Cohen & Brawer, 2003). In the 1960s, the civil rights movement prompted college students on both

collegiate levels to get involved in human advocacy activities that affected where and how they lived. Aside from civic involvement, community college students are also known to be active in clubs that support their career plans and occasionally attend athletic activities.

Vocational education has always been intricately tied to the mission of all levels of higher education proclaimed Pederson (1997). Preparing students for the immediate workforce is a fundamental feature of the comprehensive community college system (Jacobs & Dougherty, 2006). In the early conception of community colleges, more efforts were concentrated in preparing students for admission into the four-year senior institutions and less in vocation preparation (Cohen & Brawer, 2003). The idea at the time was to continue the tradition of charging the four-year universities with the responsibilities of vocational training. The practice of providing vocational education on the senior level was based on ancient higher education models that assigned the role of training students for the ranks of clergymen, civic leaders, lawyers, and doctors to postsecondary institutions (Perkin, 1997). Cohen and Brawer (2003) explained that in the 1920s the American Association of Junior Colleges was instrumental in establishing vocational education in the community colleges. The objective for providing vocational education in the two-year system was to train paraprofessionals for fields that did not require a baccalaureate degree. As a consequence of the American Association of Junior Colleges' efforts, in the 1960s, community colleges offered terminal degrees in select occupations as an alternative to the four-year professional degree.

Levesque, Laird, Hensley, Choy, and Cataldi (2008) posited that the role of vocational or commonly known as career and technical education throughout the

decades has expanded to link secondary, two-year, adult, and four-year education together. Career and technical education on the secondary level has evolved from programs that were initially meant for students who did not desire or were not academically ready for college matriculation to programs that offer advanced studies and preparation for college-level technical and professional studies (Dare, 2006).

On the postsecondary level, career and technical education efforts began prior to the American Association of Junior Colleges' endeavors to have it officially recognized (Cohen & Brawer, 2003). In 1917 the Smith-Hughes Act and the George-Dean Act of 1937 were the first of many laws that promoted and funded vocational education on the postsecondary levels (U.S. Department of Education [USDE], 2004). Under the Smith-Hughes Act of 1917, secondary vocational education curricula were separated from the postsecondary curricula (Cohen & Brawer, 2003; USDE, 2004). Specifically, the act delineated how federal funds would only be used for experienced vocational education teachers to instruct students who have entered or about to enter the labor force (Prentice Hall, n.d.). The original goal of the Smith Hughes Act was to train laborers for agriculture professions that did not require a baccalaureate degree (Hyslop-Margison, 2001). According to Hyslop-Margison, events surrounding post-World War II and the civil rights movement ushered in the Vocational Educational Act of 1963 that supplanted the earlier laws. Subsequent to 1963 act, many bills were amended which culminated into the Carl D. Perkin Vocational and Technical Education Act, Public Law, 105-332 of 1998 (USDE, 2004). Under the Perkins Act, postsecondary schools have greater resources to provide students with competency-based applied learning

programs that prepare citizens for technical fields that did not require a baccalaureate or advanced education.

Over several decades the vocation education act has endured many alterations and promoted many reforms according to Dare (2006). A higher education reform that is most congruent with early and current vocational education efforts and continues to gain ground in the community colleges is the College and Career Transition Initiative or CCTI. CCTI is an innovative program that has the goal of facilitating the adjustment process from high school to postsecondary education through to employment. State and local businesses play a major role in the initiative by offering career development support for high school and college students. Thus, vocation education in the community college has become one of its major recruitment strategies (Cohen & Brawer, 2003; Dare, 2006; Jacobs & Dougherty, 2006).

Finally, remedial or development education plays a pivotal role in community colleges claimed Cohen and Brawer (2003). In spite of its role to open access to all citizens, remedial education is a subject of contention for many educators across all levels (Levin & Calcagno, 2008; Oudenhoven, 2002; Parsad & Lewis, 2003). The onus of remediation tasks and funding costs were unforeseeable to the founders of community colleges who had the intent to provide pre-collegiate experiences for students who were not academically prepared for admittance to four-year institutions (Cohen & Brawer, 2003; Levin & Calcagno, 2008; Oudenhoven, 2002; Parsad & Lewis, 2003).

A study conducted by Parsad and Lewis (2003) indicated that remedial instruction in postsecondary education is both a burden and benefit to education

depending on which side of the argument one decides to accept. Advocates of remediation see the necessity in providing an academic support program where adults who have been out of the education pipeline for more than three years can receive refresher courses in English, math, and reading (Oudenhoven, 2002). Opponents, on the other hand, viewed remediation as a tragic waste of taxpayers' money because proficiency in areas needed for college success should be addressed at the secondary level. On the whole, remedial education in postsecondary schools is at the heart of economic, educational, and social debate in American education (Cohen & Brawer, 2003; Levin & Calcagno, 2008; McGrath & Spears, 1991; Oudenhoven, 2002; Parsad & Lewis, 2003).

The current status of community colleges in the 21st century mirrors the original mission of the first two-year system in the late 1800s (Horn, Nevill, & Griffin, 2006). In spite of its turbulent beginnings, community colleges have grown from 129 public and private two-year colleges in 1915-1916 to a total of 1,177 in 2009 (AACC, n.d.). Table 1 illustrates the rise and decline of public and private two-year colleges throughout most of the twentieth century. The sharpest rise in public community colleges and the decline in private two-year colleges occurred during the late 20th century through the early millennium, according to Horn, Neville, and Griffith (2006). Cohen and Brawer (2003) postulated that the rise and fall of community colleges were the result of political, ideological, and demographic changes. Nonetheless, even in the midst of its decline, community colleges continue to enroll approximately 40% of all undergraduate students and 53% of adults in the United States (Horn, Nevill, & Griffin, 2006).

Table 1

Rise and Decline of Public and Private two-year colleges, 1915-1999

Year	***Total***	***Public***		**Private**	
		Number	***Percentage***	***Number***	***Percentage***
1915-16	74	19	26	55	74
1921-22	207	70	34	137	66
1925-26	325	136	42	189	58
1929-30	436	178	41	258	59
1933-34	521	219	42	302	58
1938-39	575	258	45	317	55
1947-48	650	328	50	322	50
1952-53	594	327	55	267	45
1956-57	652	377	58	275	42
1960-61	678	405	60	273	40
1964-65	719	452	63	267	37
1968-69	993	739	74	254	26
1972-73	1,141	910	80	231	20
1976-77	1,233	1,030	84	203	16
1980-81	1,231	1,049	85	182	15
1984-85	1,222	1,067	87	155	13
1988-89	1,231	1,056	86	175	14
1992-94	1,236	1,082	88	154	12
1996-97	1,239	1,080	87	159	13
1998-99	1,244	1,075	86	169	14

In conclusion, community colleges in the United States may have had its challenges throughout its early development; however, history has showed that its greatest contribution to American higher education is access to college for all who desire an enhanced quality of life regardless of race, gender, or socio-economic status (AACC, n.d.; Cohen & Brawer, 2003; Hoachlander, Sikora, Horn, & Carol, 2003; Horn, Neville, & Griffith, 2006). Its open-door policies, flexible scheduling, affordable tuition, and distant education practices, have made postsecondary education possible for students who historically were systematically excluded from the higher education process.

Characteristics of Nontraditional Students

The coined phrase "nontraditional student" is a nomenclature in higher education used to describe a demographic of students that was not among the population of students served by the original nine colleges founded in the United States. Prior to the American Revolution in the early 1600s, British North America followed the lead of the world and adopted the European higher education model (Perkins, 1997). According to Perkins' account of the history of universities, the first known organized university began in ancient Europe where scholarship and learning, academic freedom, and corporate autonomy were the premiere features of institutions of higher learning. Paris and Bologna universities were credited as having pioneered the idea of full collegiate institutions in the late 12th century through their academic guilds known as *universitas*.

The universitas or universities was a place where master craftsman and scholars trained lower students, known as undergraduates. On this level of learning,

undergraduates were taught the *trivium*. The trivium in early civilization referred to teachings in grammar, rhetoric, and logic. Once the undergraduate students mastered the trivium, they became bachelors and were able to teach others. Bachelors who successfully completed the *quadrivium* were known as Masters. The quadrivium comprised four additional courses in music, arithmetic, geometry, and astronomy. The models for the trivium and quadrivium were by-products of the early European urban schools which arose from the post German and Viking invasions in the early 12th century. The purpose of the urban schools was to secede from the monastic schools that promoted biblical teachings of the Dark Ages (Perkins, 1997). The academic objective of the urban schools, although limited, was to teach basic literacy skills needed for various professions. Thus, the reason why Paris and Bologna were known as the first two "official" universities was because their goals and objectives were more comprehensive in scope. Additionally, the original universities were the first of its kind to establish autonomy from governance and religious rule.

European models of higher education that emerged out of the first two original universities were quickly adopted by British dissenters who thirsted for autonomy from religious rule like the European universities (Perkins, 1997). Ironically, the first nine colonial colleges that were established prior to the American Revolution were established as religious seminaries to train young scholars in moral instruction. The colonial colleges in early North America comprise: Harvard College at Cambridge, Massachusetts founded in 1636; William and Mary at Williamsburg, Virginia founded in 1639; Yale College at New Haven, Connecticut founded in 1701; Princeton College in New Jersey founded in 1748; Columbia University originally named King' College

in New York, founded in 1754; the University of Pennsylvania at Philadelphia founded in 1754; Brown University at Providence, Rhode Island founded in 1764; Queen's College known as Rutgers in New Jersey founded in 1766; and Dartmouth College at Hanover, New Hampshire founded in 1769. Perkin described the first nine colleges as mirroring the general education models developed by Oxford and Cambridge universities. Eventually as they continued to developed, the first nine colleges evolved into liberal arts colleges that continued to provide access for the sons of the white wealthy elite. Therefore the origin of the term "traditional student" refers to the initial population of students that were predominantly served during the early development of higher education in the United States.

The first piece of legislation that precipitated the initial proliferation of students who were not considered traditional was the Morrill Land Grant Act of 1862 and 1890. Perkins (1997) and Wolanin (2003) indicated that these acts accelerated the growth of a variety of college students and historical black colleges and universities. The goal of the acts was to establish colleges that had liberal arts and technical curricula to foster a boost in agricultural and teaching professions. In 1944, the Servicemen Readjustment Act, currently known as the G.I. Bill, gave financial support to veterans that allowed a substantial number of women and minorities to attend college (Kinser & Forest, 2002; Wolanin, 2003). Two decades later following the G.I. bills, the Higher Education Act of 1965 was enacted. The Higher Education Act of 1965 brought about greater access and financial assistance to all students through federal student grants, loans, and academic support programs.

Hence, the term traditional students no longer characterized students just by virtue of affluence, gender, and ethnicity (Berker, Horn, & Carroll, 2003; Choy, 2002; Chao, DeRocco, & Flynn, 2007; Compton, Cox, & Lanaan, 2006; Provasnik & Planty, 2008; Taniguichi & Kaufman, 2005). The idiom traditional students in the 21st century now refer to students who enroll full-time in a postsecondary institution immediately after high school, are dependent on their parents for financial support, have no children, and are not employed full-time at anytime during the academic year. Nontraditional students, alternatively, possess opposite characteristics of traditional students. Choy's (2002) explanation of the nontraditional student is categorized by three distinct groups: socioeconomics, enrollment status, and age.

Students who are nontraditional due to their socioeconomics status (SES) are students who have background variables that are not congruent with the original traditional student definition which is male, affluent, and white (Perkins, 1997). Nontraditional characteristics are gender, race, income level, marital status (married vs. single), unmarried caring for dependents (single parent), first-generation (neither parent has graduated from a four year institution), and independent of parental support (Chao, DeRocco, & Flynn, 2007; Choy, 2002). According to the National Center for Education Statistics (Choy, 2002), at least 73% of all students are considered nontraditional in some way if using socioeconomics status [SES] as the barometer. SES factors place students at a higher risk of attrition (Berker, Horn, & Carroll, 2003; Byrd & MacDonald, 2005; Chao, DeRocco, & Flynn, 2007, Choy, 2002; Sorey and Dugen, 2008; Taniguchi & Kaufman, 2005; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Pike & Kuh, 2005).

In a study conducted by Taniguchi and Kaufman (2005), SES factors such as low income-levels, marital status (married, divorced or separated), and caring for young dependents all had a negative correlation with degree attainment. Students who have high-status occupations are more likely to complete their degrees than student with low-status jobs. The rationale for student persistence among students with status occupation is students who work in high paying jobs are more than likely to be considered for immediate promotions upon completing their degrees and have access to professional networks that encourage them to persist. Marital status also makes a difference in degree attainment. Women who are married tend to complete their degrees at a higher rate than women who are divorced. Financial and household support from a spouse makes a difference for women who are trying to complete their degree plans. Lastly female students who care for dependent children under the age of 18, more so than men with children or students without children, have lower rates of degree completion.

Pascarella, Pierson, Wolniak, and Terenzini, (2004), Pike and Kuh, (2005), and Ramos-Sanchez and Nichols, (2007) found that students who are first generation are also at high risk of attrition. First generation students typically do not have the same support, preparation for, and exposure to the college process as students who come from households where at least one parent is a college graduate. Research showed that first generation college students are (a) less likely to get involved in college extracurricular activities, (b) more likely to take developmental classes, (c) susceptible to work more hours outside of classes and spend less time studying, (d) more likely to major in fields that do not require critical thinking skills and take on fewer credit hours, (e) less likely to have a social/family support system, and (f) not as committed to a degree plan when

compared to students who are second generation college students (Byrd & MacDonald, 2005; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Pike & Kuh, 2005).

Enrollment status is another salient at-risk factor of nontraditional students that is gaining increased attention because of its impact on retention and graduation rates (Berker, Horn, & Carroll, 2003; Sorey & Dugen, 2008). Berker, Horn, and Carroll's (2003) research on the differences between employees who attend school and students who work described the demographics, enrollment status, and persistence rates of the two groups. It was discovered that students who work full-time and attend classes part-time considered themselves employees who studied. Contrarily, students who worked part-time and attended school full-time described themselves as primarily students who had jobs or worked. The average age of students who are employees is 36 and students who work is 30. Women are in the majority for both categories at 56.2%. The racial breakdown of students who work depicted Caucasian students as having the highest rate at 60% versus 15% for African-Americans, 13% for Latino, and 12% for all other ethnicities. The racial demographics for employees who study are 69% for Caucasian, 14% for African-American, 10% for Hispanics and 7% in other racial groups. Finally, in reference to persistence, employees who study complete a degree at a lower rate (33%) than students who work (44%).

A characteristic that is most prevalent and synonymous with nontraditional students is age (Berker, Horn, & Carroll, 2003; Choy, 2002; Chao, DeRocco, & Flynn, 2007; Provasnik & Planty, 2008; Taniguichi & Kaufman, 2005). According to Choy (2002) and Taniguichi and Kaufman (2005), age is a factor that usually encompasses all nontraditional characteristics and presents implications for how education services are

provided to students. Compton, Cox, and Lanaan (2006) asserted that adult students who are at least 24 years of age and older are considered nontraditional-aged students. Thus, not every nontraditional student is regarded as an adult learner. Adults are considered as individuals who are solely responsible for making their own decisions about their lives. In essence, adults have a self-concept of acting on their own behalf (Arnett, 1998; Butler, 2005; Knowles, 1990; Shea, 2003). Students who are deemed adults typically have delayed first enrollment to college by at least five years, are part-time students and full-time employees, have life experiences/roles that are indicative of living independent of guardians, and an extensive work history. Therefore, age coupled with other SES factors situate adult students at higher risk of attrition than do students who are traditional or minimally nontraditional (Berker, Horn & Carroll, 2003; Choy, 2002; Chao, DeRocco & Flynn, 2007; Compton, Cox & Lanaan, 2006; Provasnik & Planty, 2008; Taniguichi & Kaufman, 2005).

In summary, the term nontraditional student originally referred to students who were excluded from higher of education and then later benefited from the historical events and legislature that provided access for all qualified citizens to attend college. As nontraditional students began to become a dominant force in college enrollment during the latter part of the 20th century through to the new millennium, inclusion and consideration for the growing diverse student population superseded the task of mere access (Bean & Metzner, 1985; Berker, Horn & Carroll, 2003; Billington, 1996; Bowl, 2001; Brookfield, 1986; Bushy, 1992; Butler, 2005; Bye, Pushkar & Conway, 2007; Chartrand, 1992; Choy, 2002; Chao, DeRocco & Flynn, 2007; Compton, Cox & Lanaan, 2006; Council for Adult Experiential Learning. 2000; Cross, 1981; Demick &

Andreoletti, 2003; Donaldson & Townsend, 2007; Donaldson, 1999; Donaldson, Graham, Martindill, Long, & Bradley, 1999; Eppler, & Harju, 1997; Galbraith, 2004; Gilliam-Scott,1984; Goodman, & Savage, 1999; Grabowski & Associates, 1981; Graham, Donaldson, Kasworm, & Dirkx, 2001; Graham & Donaldson, 1996, 1997, 1999; Hensley & Kinser, 2001; Hermon & Davis, 2004; Hermanson, 1996; Honigsfeld & Dunn, 2006; Imel, 1986; Hoyer & Touron, 2002; Johnson, 1991; Justice & Dornan, 2001; Kasworm, 2003; Kerka, 2001; Kiely, Sandmann, & Truluck, 2004; King, 2003; Kinsella, 1998; Knowles, 1990; Knowles, Holton & Swanson, 2005; Kroth & Boverie, 2000; Laanan, 2003; Lawler, 1991; Leith, 2002; Leonard, 2002; Luzzo, 1999; McAdams, Ruetzel & Foley, 1986; MacKinnon-Slaney, 1994; McGivney, 2004; Merriam, 2005; Merriam & Cafferlla, 2001; Mingle & Birkes, 2004; Morris, Brooks & May, 2003; Peverly, Brobst, Graham & Shaw 2003; Provasnik & Planty, 2008; Pusser, Brenenman, Gansneder, Kohl, Levin, Milam, & Turner, 2007; Reynolds & Gerstein,1991; Sandler, 2002; Sorey & Duggan, 2008; Taniguichi & Kaufman, 2005; Terry, 2006; Thoms, 2001; Zmeyov, 1998).

Accordingly, adult student enrollment in college is not a novel idea to higher education. However, understanding and applying knowledge about the adult learner in the classroom is a relatively new challenge that is aggressively gaining ground in postsecondary institutions. The conclusion of this section on nontraditional students continues with an overview of literature relating to adult life transitions and stages, assumptions about the adult learner, adult students' persistence patterns, and adult career development.

Adult Life Transitions and Stages

The importance of how adults' transition and move through life stages is crucial to the understanding of what motivates adults to pursue a college education after having delayed enrollment for more than five years post high school (Aslanian & Brickell 1980; Bauer & McAdams, 2004; Bauer & Mott, 1990; Bee, 1987; Brookfield, 1986; Bushy, 1992; Compton, Cox, & Laanan, 2006; Cross, 1981; Lawler, 1991; Levinson, 1986; Merriam, 2005b). Aslanian and Brickell (1980) described life transitions for adults as:

> The course of adult life is divided into stages through which adults move in a fixed order and at relatively fixed times. The stages are rooted in the biological, psychological, and social nature of adult human beings and constitute the major demarcations in the human life cycle. Passing from one stage to another constitutes a significant transition. Adults lose equilibrium in an earlier stage and must regain it in a later one. Thus transitions pose challenges, create stress, and offer opportunities for growth. Adults cope in different ways with their life transitions and enjoy different degrees of success, depending partly on their personal characteristics and partly on their situation. (p. 27)

Adults respond to the vicissitudes of life in a variety of ways. Erikson's model of psychosocial development refers to the responses as developmental crisis or resolutions (Goetz, Alexander, & Ash, 1992; Miller, 1983). As an individual transition from one stage to another, he/she is presented with opportunities for personal growth. If the response to life's sudden changes does not produce desired results or a resolution then a person is in crisis. Resolution or a positive outcome to unexpected or abrupt

changes is considered a successful transition. Levinson (1986) defined life transitions as stages in life that are fixed during relatively fixed periods. Transitions are internal and external events that are intricately tied to biological, psychological, and social changes. Transitioning from one stage to another is marked by the events that happen in adult life. An external event for instance, is the empty nest phenomenon when children leave home to forge lives of their own and the parent of the adult child is left to create a life without having to care for dependent children. Subsequently, an internal event that may occur in conjunction with children leaving home is re-identification of the parental role. Internal changes as they appropriately address external shifts are at the core of successful transitions.

Levinson (1986) and Merriam (2005a) postulated that life transitions can be expected, unexpected, and latent. Expected transitions are transitions that coincide with social expectations such as marriage, starting a career, and having children (Galbraith & James, 2002). Unexpected transitions are events that happen suddenly without little to any preparation like a terminal diagnoses, divorce, or death of a spouse or child. Latent transitions are those changes that go unnoticed yet appear when the timing coincide certain events. An example of a latent transition is when a woman discovers self-reliance as a result of a divorce. Regardless of the nature of the transition, all transitions provide opportunities for growth or stagnation (Merriam, 2005a).

Not all life transitions are growth producing (Merriam, 2005a). However, when growth occurs from a life transition it is always preceded by a learning encounter. Learning is a combination of self-reflection and a need to apply what is learned to a specific situation at hand; in essence, it is an observable change in behavior that

attempts to solve a problem (Hergenhahn & Olson, 2001; Hoyer & Touron, 2002; Lawler, 1991; Levinson, 1986; Merriam, 2001, 2004, 2005a). The process of learning for an adult in transition can result in learning that is developmental and/or additive asserted Merriam (2005b). Developmental learning is a process in which an individual creates a new meaning from an experience through altering their mindset. Unlike, developmental learning, additive learning does not require a fundamental change in how a person thinks, it involves learning new skills, adapting to new social roles, and taking on different behaviors that are meant to address a issue.

Learning that is additive for an adult is intricately tied to life transitions that require action to change or respond to a present condition (Aslanian & Brickell 1980; Bee, 1987; Brookfield, 1986; Compton, Cox & Laanan, 2006; Cross, 1981; Merriam, 2005b). A study conducted by Aslanian and Brickell (1980) to ascertain the types of transitions that prompted learning showed that a large majority of adults reported career-related changes as the number one reason for enrolling in a formal education setting to pursue a college degree or gain advanced technical skills. Attendance to college or participation in formal learning environments is not the only means in which adults learn. Learning can also take place informally and at any time (Tough, 1971). An example of informal learning is mentoring in the workplace. Adult learners who have a need to resolve feelings of anxiety about job security may choose to develop a mentoring relationship with a senior employee to learn strategies about how to advance in the workplace.

Adult learners in transition participate in the learning process for a variety of reasons. According to Houle' learning typology (Aslanian & Brickell 1980; Cross,

1981), adults' motivation to learn can be classified by three themes (a) goal-oriented, (b) activity-oriented, and (c) learning-oriented. Adults who are goal oriented learn with a specific objective in mind. The goal is exclusively tied to fulfilling a need to know something in order to resolve an issue. Goal-oriented learners seek knowledge through a variety sources such as books, formal education programs, seminars, or cultural encounters. Activity-oriented learners are known to be social learners. Adults who feel a void in their social life and are in need of companionship are typical of activity-oriented learners. Learners of this ilk seek opportunities to join social clubs, attend classes on hobby-related activities, or engage in community education programs such as programs at the YMCA. Learning-oriented adults are considered higher ordered learners who pursue learning for the pure pleasure of gaining knowledge. Adults who are classified as learning-oriented are also considered as life long learners who have no specific learning objectives to accomplish other than expanding their understanding of the world.

In summation of adult life transitions, adulthood is not a designation in which a person arrives at a pre-determined time. Adulthood is a process of having a sense of responsibility for one's own life choices that are independent of the choices of others. Every adult experiences a variety of life transitions that are fixed or unfixed. Fixed transitions are biological and psychological changes that are a result from the aging process. Unfixed transitions are social or unexpected changes such as getting married or losing a child. All transitions provide opportunities for growth; however, growth is relative and dependent upon the individual adult's needs at the given time. Awareness of crisis brought on by a transition is usually followed by a learning opportunity to

resolve an issue. Learning for adults can be transformative or additive. Transformative learning is a course of action that involves reflection that leads to a change in perception. Additive learning involves reflection coupled with adding skills or knowledge that facilitates a change in behavior. Adults who engage in formal and informal learning seek to gain skills or knowledge that will lead to resolution of problem. The majority of adults, who choose formal learning such as enrolling into an education program, tend to do so out of a need to address career-related issues. Adults who have the need to accomplish a specific objective are considered a goal-oriented learner. Activity-oriented learners are gregarious learners seeking companionship through learning opportunities that are purely social in nature. Learners who are more introspective learn for the pleasure of acquiring knowledge.

Assumptions about the Adult Learner

Berker, Horn, and Carroll (2003) reported that nontraditional-aged students 24 years and older account for at least 43% of all undergraduates enrolled in postsecondary institutions. Of the 43%, at least 40% are in their mid to late 20s, 32% make up students in the 30s age group, and the remaining 28% comprise adults 40 years and older. Within the entire nontraditional-aged group 54% attend a two-year college. As enrollment of an adult population in higher education increases, implications for educational strategies and adult learning models are becoming prominent (Bauman, Wang, DeLeon, Kafentzis, Zaval-Lopez, & Lindsey, 2004; Bean, 2005, Bean & Metzner, 1985; Berker, Horn, & Carroll, 2003; Bedy, 2004; Billington, 1996; Bowl, 2001; Brookfield, 1986; Bushy, 1992; Chao, DeRocco, & Flynn, 2007; Chartrand, 1990, 1992; Council for Adult Experiential Learning, 2000; Cross, 1981; Demick, &

Andreoletti, 2002; Donaldson & Townsend, 2007; Donaldson, 1999; Donaldson, Graham, Martindill, Long & Bradley, 1999; Edmunds, Lowe, Murray, & Seymour, 1999; Galbraith, 2004; Grabowski & Associates, 1981; Graham, Donaldson, Kasworm, & Dirkx, 2001; Graham & Donaldson, 1996, 1997, 1999; Hart, 2003; Hermanson, 1996; Hermon & Davis, 2004; Honigsfeld & Dunn, 2006; Howe, 1977; Hoyer & Touron, 2002; Justice & Dornan, 2001; Kasworm, 2003; Kiely, Sandmann, & Truluck, 2004; Kinsella, 1998; Knowles, 1980, 1990; Knowles, Houlton & Swanson, 2005; Kroth & Boverie, 2000; Laanan, 2003; Lawler, 1991; Leith, 2002; Leonard, 2002; MacKinnon-Slaney, 1994; Merriam, 2005b; Merriam & Cafferlla, 2001; Ozuah, 2005; Pusser, Brenenman, Gansneder, Kohl, Levin, Milam, & Turner, 2007; Reynolds & Gerstein, 1991; Stahl & Pavel, 1992; Thoms, 2001; Zmeyov, 1998).

Legislation, land-grant colleges, and the two-year college system have played a pivotal role in opening access to adult students. A corollary of adult student enrollment is reconsidering how adults learn and how educators should respond to their unique needs. In Zmeyov's (1998) historical overview of the origins, developments, and trends in adult learning models, it attributed mass education in colleges as the catalyst for change in how educational service providers addressed adult students. Prior to the influx of adult student enrollment in higher education, all education models were primarily based on pedagogical principles that were developed to guide and educate children (Knowles, 1990; Ozuah, 2005). Pedagogy which literally means the "art and science of teaching children" arose from the teaching methods in monastic schools during 17th century (Ozuah, 2005). The pedagogical assumptions about a learner are (a) students have no knowledge of their own learning needs, (b) all learning must be

subject specific, (c) external stimulus must be present to guide learning, and (e) students' prior experience was irrelevant. Additional to serving and understanding all students through a pedagogical lens, early research on adult learning was limited to whether or not adults can learn (Merriam, 2001).

The foundation in which adult learning theories were erected is based on set of principles known as andragogy. Andragogy is a term coined by a German educator Alexander Kapp in the mid-1800 (Zmeyov, 1998). Over the years, andragogy which means the "art and science of helping adult to learn" has evolved from a variety of theories which dates as early as the 19th century (Ingram, 2000; Knowles, 1990; Ozuah, 2005; Zmeyov, 1998). According to Ingram's (2000) account of the development of andragogy, educators and philosophers John Dewey and Robert Mills Gagne were two of the first theorists to receive credit for their contributions to adult learning through their theories of learning as a lifelong process aimed to resolve life's issues. B.F. Skinner and his protégés' theories on stimulus and motivation influenced the assumption about adults' incentives to learn. Experiential learning is known as a hallmark of adult learning that is attributed to humanist Carl Rogers's person-centered theory. Facilitation of personal growth as a process of teaching adults was inspired by Abraham Maslow's hierarchy of needs model. Paolo Freire's theory on the necessity of a mutual relationship between teacher and student as opposed to a power relationship is recognized as paramount in the practice of teaching adults. Integration of the whole learning process which includes thoughts about how to solve the problem is a contribution to the field of andragogy by Gestalt theorist Kurt Lewin. Finally, learning

preferences based on an adult students' experience is attributed to David Kolb's experiential learning model.

The most influential contribution to the field of andragogy however, is the work of Malcolm Knowles (Billington, 1996; Bedi, 2004; Buedia, 2003; Bushy, 1992; Cross, 1981; Demick & Andreoletti, 2002; Galbraith, 2004; Grabowski & Associates, 1981; Honigsfeld & Dunn, 2006; Howe, 1977; Hoyer & Touron, 2002; Ingram, 2000; Kasworm, 2003; Kiely, Sandmann, & Truluck, 2004; Knowles,1980, 1990; Knowles, Holton, & Swanson, 2005; Kroth & Boverie, 2000; Lawler, 1991, 2003; Leith, 2002; MacKinnon-Slaney, 1994; McGivney, 2004; Merriam, 2005a; Merriam & Cafferlla, 2001; Ozuah, 2005; Ross-Gordon, 2003; Terry, 2006: Thoms, 2001; Zmeyov,1998). Knowles is one of the first theorists to assert that andragogical principles are not theories about how adults learn; andragogy is based on a set of assumptions about the adult learner (Kiely, Sandmann, & Truluck, 2004).

Knowles (1980, 1990) postulated that adults learn differently than children and a distinction between the two types of learners must be made to guide educators in their efforts to effectively serve adult students. Consequently, Knowles presented a set of assumptions to explain what makes the adult learner different from the child learner. In Knowles's (1980) original set of assumptions he conceptualized that adult learners: (a) have a sense of self-directedness, (b) possess a readiness to learn, (c) learn out of a need to resolve problems and (d) bring a wealth of experience to the classroom. Knowles along with other adult educators (Knowles, Holton, & Swanson, 2005) later recognized that an adult's right to know and internal motivation were additional characteristics about the adult learner that needed to be included in the set of assumptions.

Specific to the elements that comprise the assumptions, in reference to self-directedness, adult learners unlike children have a self-concept of independence and responsibility for what they want to learn. Self-directedness is a hallmark of adult learning according to Tough (1971). Self-directed learning involves a series of related episodes that lead to deliberate acquisition of skills, information, and/or understanding. In terms of readiness to learn, adults who decide to learn a new skill do so when they are prepared to learn as opposed to children who are mandated to learn according to the laws that govern school systems. The problem-centeredness assumption is based on adult life transitions and the need to resolve life's issues. The last characteristic, experience, acknowledges how adults not only bring a rich reservoir of life experiences to the classroom; adults also play a variety of social roles that influence how they apply and understand abstract concepts. The experience characteristic above all of the other assumptions is the most salient difference between adult and child learners.

Accordingly, assumptions about the adult learner present implications for how adult education providers should approach instruction and services to meet the needs of adult students (Billington, 1996; Cross, 1981; Galbraith, 2004; Kiely, Sandman, & Truluck, 2004; Lawler, 2003; MacKinnon-Slavey, 1994; Ross-Gordon, 2003; Thoms, 2004). Adult educators as facilitators in the teaching process as opposed to authority figures address the self-directedness assumption which states that adults are aware of their immediate needs and can benefit from the assistance of others to achieve their goals. Additionally Roger's person-centered approach and Maslow's hierarchy of needs model, support the use of facilitation in the teaching process as a means of recognizing the adult learner as a unique evolving individual with a self-concept of

independence and capacity to organize and plan their learning objectives. The adult facilitator stated Bedi (2004) and Thoms (2001) guides and oversees the learning process in contrast to dictating it to the student. In an effort to be an effective facilitator, Kiely, Sandmann, and Truluck (2004) suggested that educators to adults become aware of their own beliefs, values and assumptions that shape their philosophies about education. Galbraith (2004) believed that in addition to having an awareness of what shapes an instructor's philosophy towards education, an effective instructor of adults is organized, practical, creative, authentic, and develops a teaching style that fosters personal growth.

Teaching style is an expression of the instructor argued Galbraith (2004) and Lawler (1991, 2003). An effectual style in the teaching process with adult students require instructors to (a) have knowledge of andragogical principles; (b) understand their beliefs, values, and attitudes in regard to the teaching and learning process; (c) complement their understanding of andragogical assumptions with the knowledge of adult physical, social, psychological, ego, and moral development; and (d) possess competence and confidence in their subject areas.

The implications for college administrators who provide support services to adult learners are focused on creating an environment and identifying interventions conducive to helping the adult student to realize their full potential and complete their educational plans (Kim, 2002; Ross-Gordon, 2003). In McKinnon-Slaney's (1994) Adult Persistence Learning Model (APLM), it implied that in order for adult students to persist toward the completion of their educational goals, service providers to adults must take into consideration the unique needs of adult learners and their social roles.

The APLMI is a synthesis of adult learner assumptions, life span models, and psychosocial theories. The model has three major components that address personal, learning, and environmental challenges.

Component I- *Personal Issues*, dealt with students' self-awareness, clarification of career and life goals, mastery of life changes, developing a sense of interpersonal competence, and willingness to delay gratification. One of the assumptions about the adult learner is an adult's sense of self as being independent and capable of making decisions that are in their own best interest. The APLM suggested that service providers encourage adults to become aware of how past experiences, social roles, and their own feelings about their learning competencies can affect their career choices and progress towards their educational goals. In other words, adult students can benefit from service providers assistance with developing a stable sense of who they are and their motives for attending school (Hermon & Davis, 2004).

Component II- *Learning Issues*, recommended that service providers consider providing learning opportunities that can aid the adult student to learn in and adapt to their environment. Learning issues involved integrating the adult student's experience and making it relevant in the learning and teaching process. Factors that are highlighted in this component are educational, intellectual, and political competence. Educational competence is accomplished when adult students learn how to be successful in class and their coursework. The APLM suggested that institutions offer mandatory study skills courses that focus on the physiological, emotional, and social challenges that adults will possibly encounter in the education process. Intellectual and political competence is when the adult learner understands and is realistic about the overarching goals of higher

education. Critical thinking skills is a consequence of undergraduate courses, however, degree attainment is the goal that most institutions seek to fulfill. Thus, students need an understanding of the time and commitment it takes to complete a plan of study that leads to a degree. Reconciling the role of politics in postsecondary education is another area of competence that adult students need to achieve in order to persist. Adult students are challenged to accept that gender, race, and other cultural biases can affect the learning and teaching process.

Component III-*Environmental Issues* addressed institutional climate that can affect adult students' ability to learn. The critical points of this component are informational retrieval, awareness of opportunities and hindrances, and compatibility with the environment or person-environment fit. Access to information at all times for the adult student is crucial. Nontraditional age students unlike traditional-age students do not necessarily perform tasks in a linear fashion asserted MacKinnon-Slaney. Adult learners are prompted to start or stop a task based on problems that arise. For instance, a parent with multiple financial obligations may decide to take a semester off to work more hours in order to raise money for a future semester. Consequently, nontraditional-aged students must have easy access to information during those times when their education is interrupted. Service providers need to be well-informed and resourceful to accommodate the adult learner's life roles and transitions. Establishing convenient student services office hours and employing caring knowledgeable staff members to assure ambivalent students are examples of addressing environmental issues.

In conclusion of the assumptions about the adult learner, andragogy which means the art and science of helping adults to learn is based on a set of assumptions

developed by Malcolm Knowles in the 1970s. Knowles asserted that adult learners share common themes that shape their learning and set them apart from child learners. The first assumption states that adults are self-directed and have a self-concept of independence. Secondly, adults are motivated by life transitions, and thus have a readiness to learn. Learning as a means to resolve life's problems is the third assumption about the adult learner. The fourth assumption claims that adults have life experiences and social roles that influence their perception of what is learned. An additional two assumptions were later added to the original set of assumptions that addressed adult students' right to know what their learning objectives are and their internal motivations for learning.

The set of assumptions about the learner implicates instructors of adult students to develop strategies that involve transforming teaching styles from an authoritarian mode to a mode of facilitation. The implications for student support service providers of adult learners entail taking into consideration the adult student's personal, learning, and environmental issues that affect persistence.

Adult Students' Persistence Patterns

Persistence, retention, and attrition in higher education have different meanings for different purposes (Berger & Lyon, 2005; Johnson, 1991; Mortensen, 2005; Ramist, 1981). Hagedorn (2006) defined persistence in reference to a student who enrolls in college and remains enrolled until he/she completes a degree. Retention, a term that is synonymously used with persistence, also means staying in school until degree completion. Attrition on the other hand, is the act of dropping out of school without completing an intended degree program. The problem with defining persistence is the

myriad circumstances that are linked with attrition. For instance, Tinto (1987) observed persistence and attrition as:

> Student departure takes a variety of forms and arises from a diversity of sources, individual and institution…in the midst of this complexity it is possible to identify a number of major causes of student withdrawal from institutions of higher education. (p. 2)

McGivney (2004) identified adult students' persistence patterns as upwards, sideways, downwards, or zigzag to differentiate between traditional and nontraditional-aged students. The former group of students engages in a more linear pathway to their degrees, whereas the latter encounter barriers that temporarily forces them off the path of persistence. For the purpose of this study, persistence is subsequent enrollment at an institution each semester until the completion of a student's declared program of study (Bean & Metzner, 1985).

Enrollment to postsecondary programs for the adult student is purposeful and instrumental (Chartand, 1992). The set of assumptions about the adult learner as self-directed, ready to learn, problem-centered, experienced, and intrinsically motivated embody the notion of education as utilitarian. Most adults who pursue postsecondary programs do so in an effort to resolve life's issues that usually center on making career changes or increasing their earning potential (Aslanian & Brickell, 1980; Bee, 1987; Brookfield, 1986; Compton, Cox, Laanan, 2006; Cross, 1981; Merriam, 2005b). The assumptions about the adult learner imply that adult students are highly motivated, organized, prepared, and mature to meet the demands of completing a college program. However, adult students' persistence patterns and the factors that influence attrition are

incongruent with adult learner's characteristics. In a report on adult students who work Berker, Horn, and Carroll (2003) stated that of the adult students who were 24 years old and older and who began their postsecondary studies in 1996 and completed six years after in 2001, only 38% completed their intended programs. Specifically, of the adult students who considered themselves as employees first and students second, 68% did not attain any degree. In contrast, adults who reported themselves as students first and employees second, 56% did not complete their educational programs. Enrollment status demonstrated varying persistence rates of 50% for students who were enrolled full-time and 30% for students enrolled part-time. Lastly, the type of degree students pursue affects persistence rates. Overall, 53% of all adult students are enrolled at public community colleges versus 35% at four year colleges. Of the students seeking an associates degree 31% persist toward goal completion versus 33% persistence rate for students seeking bachelor's degrees.

Thus, the inference drawn from the adult student persistence rates when considering Tinto's (1987) and Bean and Metzner's (1985) definitions of attrition and Knowles (1980) adult learning characteristics is there are mitigating factors related to the process of persistence that are external and intrinsic. Studies conducted on nontraditional-aged college students who attend a two-year college or 4-year commuter colleges/universities demonstrate that adult student persistence is complex and mostly related to situational and non-cognitive factors (Allen, 1999; Bean, 2005; Bean & Metzner,1985; Chartrand, 1992; Donaldson, 1999; Eppler & Harju, 1997; Eschenmann & Olinger, 1992; Graham & Donaldson, 1996, 1997, 1999; Hensley & Kinser, 2001;

Johnson, 1991; Kasworm, 2003, 2008; Kim, 2002; McGivney, 2004; 2004; Sandler, 2000a, 2001; Simmons, 1995; Taniguchi & Kaufman, 2005; Wonacott, 2001).

In a study conducted by McGivney (2004) on adult persistence patterns, it presented data that is compatible with Levinson's (1986) assertions about adult development. According to McGivney, adults engage in the education process according to events happening in their lives. Levinson labeled life events as transitions that solicit a response. Nontraditional-aged adult students, more so than traditional-aged students, persist or depart in response to life transitions. Hence, the adult student's enrollment patterns are not linear toward completion of their intended degree plan as it is for traditional students. McGivney (2004) described enrollment patterns for the adult learner as:

> After an initial learning episode, an adult's learning journey may come to a temporary halt or meander in and out of several possible directions: *upwards* to gain higher level skills and qualifications; *sideways*, continuing learning without the pressure of assessment; *downwards*, engaging in learning at a lower level to further a particular interest or to enhance knowledge and skills; or a *'zigzag'* direction, moving between lower and higher level learning programmes. (p. 33)

Factors such as job displacement, career advancement, social identification, and lifestyle changes have direct relationship to why and when adults participate in formal learning settings (Cross, 1981).

Student background, family support and responsibilities, financial stability, and work scheduling are factors that have been decidedly related to adult students' attrition (Bean, 2005; Bean & Metzner, 2005; Graham & Donaldson, 1999; McGivney, 2004).

Unlike traditional students whose total identity is that of a student primarily, nontraditional adults contend with juggling several roles that include student, worker, spouse, head of household, parent, and/or member in their community. Balancing life roles with school demands is a major threat to the adult student's intentions to persist (Kasworm, 2008; McGivney, 2004). Persistence for the adult student is dependent upon how well the student adjusts to the collegiate environment (Chartrand, 1990; 1992).

Institutional factors that affect persistence are mostly related to an adult learner's ability to cope with experiences in and outside of the classroom. Models of student involvement postulated by Tinto (1987) and Astin (Astin & Schroeder, 2003) suggested student retention is highly dependent on social integration with peers and faculty on campus. Adult students' retention is best explained through their connection with community, life issues, and faculty (Donaldson, Graham, Martindill, Long, & Bradley, 1999; Compton, Cox, & Laanan, 2006). In a study conducted by Graham and Donaldson (1999), it demonstrated that involvement for the adult student is usually limited to opportunities that include interaction in the classroom, family, work, and community activism. Another study conducted by Keith (2007) on adult students' use of academic and social support services, it showed that nontraditional-aged took advantage of support services far less than traditional-aged students due to off-campus obligations. In reference to the classroom, Kasworm (2003) explained that the adult learner's experiences in the classroom is constructed and negotiated based on their perception of the instructor and instructional strategies. Adult students who perceive their learning environment as relevant to their life situations and issues tend be

motivated to complete their educational goals (Eschenmann & Olinger, 1992; Kasworm, 2008).

Support services and course offerings are other institutional factors that are related to adult student attrition and persistence. Chartrand's (1992) evaluation of Bean and Metzner's (1985) model nontraditional student adjustment shows how adult students' satisfaction with their degree plan in relation to certainty about their career path is most predictive of their intent to persist. Course availability, perceived study skills abilities, and academic advising also indicate statistically significant relationships with students' intent to leave.

Adult Career Development

Life transitions and the need to resolve problems that are the consequences of lifestyle changes, environment, and self-concept are the most dominant forces behind adult learners' pursuit of a formal education (Aslanian & Brickell, 1980; Bee, 1987; Brookfield, 1986; Compton, Cox, Laanan, 2006; Cross, 1981; Merriam, 2005b). Deemed to be predominantly goal-oriented learners, most adults attend college out of the need to change or upgrade their career status. Career development is intricately tied to the self-concept and life stages (Osipow & Fitzgerald, 1996; Super, 1953). For the educator of adults in transition, assisting a student with reconciling where they are and where they would like to be is at the heart of adult career development. According to Super (1953), career development is a matter of passing through five vocational developmental stages and tasks. Career developmental stages explain the behavior and attitudes held during that designated time frame on the life span (Zunker, 1994). The stages are:

1. Growth (birth-age 15)-develops capacity, attitudes, interests, and needs that reflect self-concept.

2. Exploratory (ages 15-24)-career choices begin to formalize but not finalize.

3. Establishment (ages 25-44)-experimentation through work experiences informs definite career paths.

4. Maintenance (ages 45-64)-continual adjustments are made to improve or maintain career.

5. Decline (ages 65+)-preparation for retirement through reduced work output.

Developmental tasks as exemplified in Table 2 are the responses to the vocational life stages. Although the vocational developmental tasks framework provides an age range for each task, Super later revised the process by asserting that a person can cycle and recycle through one or more stages at any given age (Zunker, 1994).

Table 2.

Super's Vocational Developmental Tasks

Vocational Developmental Task	**Age**	**General Characteristics**
Crystallization	14-18	Formulation of initial goals
Specification	18-21	Identification of specific career preference
Implementation	21-24	Completion of training and entering employment
Stabilization	24-35	Demonstration of career choice through work experience
Consolidation	35+	Establishment in a career by advancement, status, and seniority.

The implications of the career development stages and tasks specific to nontraditional-aged students are overcoming situational, dispositional, and environmental barriers to career decision making (Albert & Luzzo, 1999; Foltz & Luzzo, 1998; Goodman, 1994; Hackett, 1995; Lucas, 1999; Lent, Brown, & Hackett, 2000; Luzzo, 1999; and Niles, Anderson, & Goodnough, 1998). A study conducted by Lucas (1999) indicated that adults who lack vocational identity are also most likely to view themselves as having lack of self-confidence and assertiveness. Hackett (1985) and Luzzo (1999) contended that in spite of nontraditional-aged students' readiness to learn and life experiences characteristics, adult learners can benefit from career exploration activities just as traditional-aged students. However, Hackett and Luzzo cautioned service providers to take into consideration the role of perceived barriers that some adults have which can thwart their career decision making ability.

The social cognitive career theory as postulated by Lent, Brown, and Hackett (2000), based on Bandura's self-efficacy theory, attempts to explain the processes through which adults develop interests, make decisions, and achieve educational and occupational goals. Accordingly, factors such as a person's expectations, personal goals, and perceived ability to perform are intricately related to situational and environmental factors which can either promote or hinder self-directedness in the process of career decision making and career development (Albert & Luzzo, 1999). For instance, a first-generation adult student may have high expectations about earning a degree, set reasonable career goals in relationship to the degree, and have strong confidence in their ability to accomplish their goals; however, if the student is in a situation where the family values work over education, then the student's best efforts can be threatened by lack of environmental support.

In response to the challenges that adults encounter during career transitions, Super, Thompson, Lindeman, Myers, and Jordan (Whiston, 1990) developed the *Adult Career Concerns Inventory* [ACCI] to measure the career development concerns of adults. The main focus of the ACCI is on career adaptability as opposed to career maturity. The objective of the instrument is to address issues that arise during the recycling stages. The ACCI takes into consideration adults' ability to plan according to past experience and future goals, explore appropriate options, use information to make sound decisions and base decisions on rational thought.

In summary of adult career development, research showed that similar to the career needs of traditional-aged students nontraditional-aged students have needs that are related to career exploration. Super's model of career developmental tasks indicate

that adults cycle and recycle through stages which have implications for adults pursuing educational goals to address the tasks. Self-efficacy, expectations, and goal settings are directly influenced by environmental and situational factors that affect self-agency in the career decision making and career development process.

In conclusion of the discourse on nontraditional student characteristics, the term nontraditional student represents an evolution of practices and policies in higher education. Historically, access and participation in postsecondary education was intended for the affluent young white male. The first pieces of legislation to revolutionize higher education practices were the Smith-Hughes Act of 1917, and the Morrill Land Grant Acts of 1862 and 1890. Both acts influenced the development of liberal curricula offerings that were responsive to industry needs. In addition to creating a variety of program offerings that empowered the industrial and technological workforce, colleges and universities were charged with opening their doors to a varied population of students. The largest increase in student enrollment occurred post World War II. The G.I Bills of 1942 and the Higher Education Act of 1965 attracted the highest matriculation of students in U.S. postsecondary education history.

The increase in student enrollment also heightened the efforts of college educators to meet the academic and social needs of students who were considered nontraditional by virtue of their socioeconomic status, enrollment patterns and age. Throughout the years as college student enrollment swelled due to changes in the economy, it was observed that the majority of students who attended any level of higher education were nontraditional in some way. Additionally, it was recognized that the two-year college system mainly attracted students who were nontraditional in every

way. Studies conducted on nontraditional-aged students show that adults have learning characteristics that are congruent with their life stages and transitions. As a result of the conclusions derived from previous studies, the discipline of andragogy emerged as a set of assumptions to guide adult education service providers with helping adults to learn.

In spite of the efforts to understand and help adults with their college adjustment, research indicated that the attrition rates for adult students are incongruent with the characteristics of the adult student. The assumptions about the adult learner state most adults who have collegiate pursuits are self-directed, ready to learn, problem-centered, experienced, purposeful, and internally motivated. However, studies show that adult student persistence is a complex phenomenon that is intricately tied to institutional barriers, socioeconomic factors and most of all a student's ability to harmonize their educational pursuits with their social roles and situational needs. Adult students who decide to enroll in postsecondary programs do so out of a need to resolve life's issues. Although adults engage in learning opportunities for a variety of reasons, career change or job advancement is the primary objective for most adult learners.

Hence, barriers to degree completion for the adult student are external and personal. External barriers are family, work, and institutional factors. Personal factors that affect adult students are perceptions about the education process and their ability to balance life' roles and challenges with their pursuit of a degree.

Evolution of Education Motivation Theories

Adult student persistence is a consequence of factors that are complex and multidimensional. Situational, environmental, and dispositional issues have been directly related to adult students' intent to persist (Allen, 1999; Bean, 2005; Bean &

Metzner, 1985; Chartrand, 1992; Donaldson, 1999; Eppler & Harju, 1997; Eschenmann & Olinger, 1992; Graham & Donaldson, 1996, 1997, 1999; Hensley & Kinser, 2001; Johnson, 1991; Kasworm, 2003, 2008; Kim, 2002; McGivney, 2004; 2004; Sandler, 2000a, 2001; Simmons, 1995; Taniguchi & Kaufman, 2005; Wonacott, 2001). The most salient feature at the crux of all related factors to adult persistence is motivation. Motivation, the Latin root of "motive" which means to move, is an extension of behavioral and social cognitive theories that explain why an individual does what he/she does with or without reinforcement (Green, 1989; Hergenhalm & Olson, 2001; Miller, 1983; Pew, 2007; Weiner, 1990). Schaie and Willis (1986) described motivation as "…a function of how attractive or desirable a certain goal is for an individual and the likelihood (probability) of attaining that goal" (p. 219).

In Weiner's (1990) discussion on the evolution of motivational research in education as extracted from the *Encyclopedia of Educational Research from 1941 to 1990*, it provides an outline of theoretical developments that occurred in a span of five decades. Beginning in the decade between 1941 and 1950, the original assumptions about any form of motivation as written by Paul Thomas Young were rooted in a Darwinism. Then, it was believed that an organism responded to stimulus out of a need to survive. Organisms with weaker survival instincts perished. The study of sub-human motivation did not quite satisfy educational psychologists who were more interested in learning incentives. In the 1960s educational theories were synthesized by Melvin Marx to include explanations for drive and learning, drive and frustration, activation and of drives and motives, reward, knowledge of results, fear and anxiety and arousal. The goal of this decade for educational psychologists was how to motivate

students to engage in learning activities.

Later in 1969, Weiner cited how Marx's collection of theories emphasized the theoretical influences of Watson, Hull and Spence, Lewin and Atkinson, Freud, and Tolman. John Watson, father of American behaviorism, is best known for his contribution on associative stimuli and its effect on learning continuity (Hergenhalm & Olson, 2001). Watson's associative stimulus counters Pavlovian's operant conditioning by suggesting that learning occurs not with mere reinforcement, it can also happen by related events happening subsequent to the original learning encounter. Clark Hull and Kenneth Spence are credited for their reciprocal works on the theory of incentive. The drive theory formulated by Hull explained how the initial stimulus to incite a learning response must involve satisfying a need. Later, Hull's protégé Spence further developed the theory about drive to include instrumental behavior patterns. Instrumental behavior patterns are patterns of learned responses in the absence of reinforcement. Succinctly explained, the incentive theory is a process in which learning is a latent occurrence that does not always need the presence of immediate reinforcement and thus can be elicited when there is a drive present to demonstrate what is learned. The law of contiguity, a recall of an earlier learning experience applied to a later similar experience, best illustrates the synergy between Hull and Spence's drive theory.

Cognitive theorists Kurt Lewin and John Atkinson were instrumental in expanding nonhuman motivation theories to human motivation theories (Weiner, 1990). Unlike theorists who justified motivation as being mechanical and related only to reinforcement, the cognitive theorists claimed that motivation was a direct link to

achievement. Lewin, a Gestaltist psychologist, believed all human behavior was a result of what is consciously experienced and that individuals are products of their environment (Hergenhalm & Olson, 2001). Thus, Lewin's contribution to human motivation was how the environment influences an individual's ambitions (Weiner, 1990).

Atkinson expounded on Lewin's achievement theory by developing a 2X4 equation model explaining achievement-related tasks that varies in levels of difficulty. Specifically, the achievement-related tasks explained that the tendency to attain a goal is based on two motivational factors and four situational factors. The motivational factors are the motives to achieve success and the motives to avoid failure. The motive to achieve is defined as a feeling a sense of pride for having to accomplish a goal. Contrarily, the motive to avoid failure is explained as evading a sense of shame. The four situational factors are the probabilities of success, probabilities of failure, incentives of success, and incentives of failure. The probabilities situational factors of success and failure are defined as the likelihood of achieving a goal. The incentive situational factors are the desire to feel good when accomplishing a difficult task and the desire to avoid shame when failing to accomplish a simple task. The achievement-related task model eventually became the foundation for a later achievement goal model developed by Dweck (1986).

Psychoanalysis, a synthesis of neurological structures and mind healing played an integral part in the development of human motivation theories (Green, 1989; Weiner, 1990). Freud (Green, 1989) postulated that adult human behavior and motives are shaped by earlier childhood experiences. Personalities, drives, and urges are all a

consequence of unfulfilled desires in childhood. In reference to motivation, psychoanalysis explained that the underlying cause for some human motives comes from a need to fulfill a yearning (Weisskopf-Joelson, 1971).

Another influential figure in the early development of educational motivation research is Edward Chace Tolman (Hergenhamn & Olson, 2001, Weiner, 1990). Tolman's theory on purposive behavior is a combination of behaviorism and Gestaltism. Purposive behavior implies that actions are goal-oriented and will continue until the goal is accomplished. From a Gestalt perspective, Tolman asserted that learning is a matter of discovering how one event can lead to another event which leads to a series of events that can eventually lead to a desired goal. Therefore motivation is not always a requirement for learning something new. However, motivation is important for what will be learned in the process.

Lastly, during the midst of the age of behaviorism and cognitivism which shifted the movement of motivation research from infrahuman to humans, another prominent movement was steadily gaining ground in the field of psychology. In the 1950s Carl Rogers and Abraham Maslow introduced a branch of psychology known as *humanistic psychology* (Leahey, 2001). Humanistic psychology is known as the third force of psychology that followed the first two forces, behaviorism and psychoanalysis respectively. The focus of humanistic psychology is on the subjective experience of the individual as opposed to the positivism experiences. Humanistic psychology hypothesized how internal processes, the ability to adapt, positive influences, and self-appraisal affect individual functioning (Pajares, 2001). Maslow's theory of motivation embodies the essence of humanistic psychology by suggesting that humans are capable

of fully realizing their full potential if a continuum of needs is met (Maslow, 1943). Accordingly, Maslow developed the hierarchy of needs model as shown in Figure 1 to illustrate the levels of needs that must be satisfied in order for humans to reach their fullest potential. Self-actualization, stated Maslow, is the highest level that an individual needs to reach in order to realize their most ideal selves.

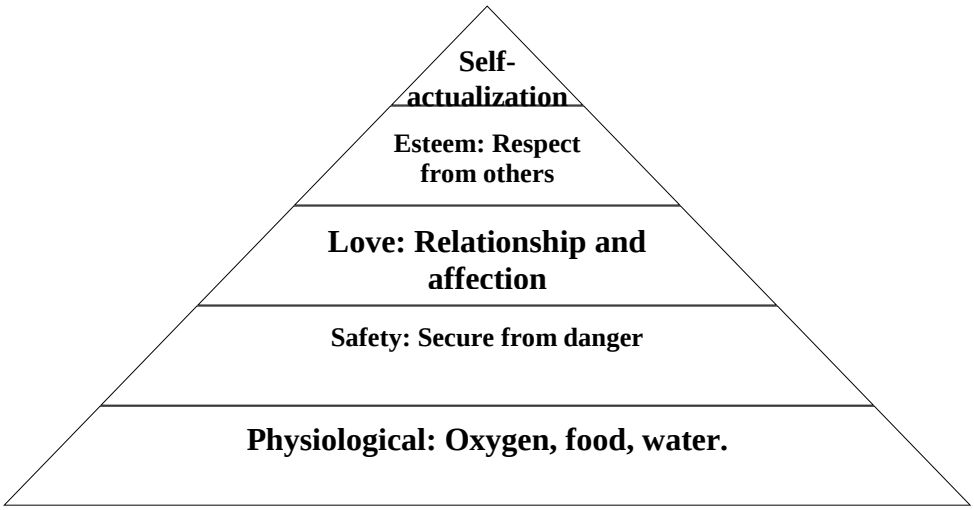

Figure 1. Maslow's Hierarchy of Needs.

In educational motivation, Masolow's hierarchy of needs model was one of the first and most recognized theories to introduce the extent of how intrinsic factors influence behavior (Leahay, 2001). In reference to the adult learner, intrinsic motivation is the force that drives the adult student to use the learning goal approach as a means to achieve academic pursuits (Bye, Pushkar, & Conway, 2007; Eppler, Carsen-Plentl, & Harju, 2000; Eppler & Harju, 1997; Morris & May; 2003). The learning goal orientation as opposed to performance goal orientation requires students to have a greater sense of self-efficacy and self-determination (Elliot & Dweck, 1988). The theory of self-determination according to Deci, Vallerand, Pelletier, and Ryan (1991)

suggested that students who have a genuine interest in learning, value education, and a positive self-appraisal about their abilities will be more determined to accomplish their goals. Hence, internal motivation is a characteristic that heightens the presence of the other characteristics such as readiness to learn and self-directedness that are specific to the adult learner (Pew, 2007).

Educational motivation research in the 1980s through the 1990s expanded motivation to include the attribution theory, anxiety, self-esteem, levels of aspiration, affiliation, biochemical correlation to motivation, and reinforcement (Weiner, 1990). During these two decades the focus on subhuman diminished as the study of self-perceptions became the primary explanation for student success and failures. The most notable contributions to education motivation during these decades came from Dweck, Bandura, and Weiner.

Dweck's (1986) achievement motivation goals model is a by-product of Atkinson's achievement task model. Dweck contended that achievement goals are divided by two categories: (a) learning goals which involve mastery of subject area to improve competence and (b) performance goals to gain favorable judgment and avoid negative judgment. Elliot and Dweck (1988) tested the model on children and concluded that individuals who used the learning goals approached tend to persist toward their goals in spite of their perceived abilities. Contrasted against the children who used learning goals, performance oriented children tended to avoid challenges and developed learned helplessness when they had low perceptions about their ability to accomplish a task.

Studies using the achievement goals motivation model with traditional-aged and nontraditional-aged college students showed that adult students were more likely than traditional-aged student to use a learning goals approach in college (Eppler, Carsen-Plentl, & Harju, 2000). Furthermore, Eppler and Harju (1997) found that nontraditional-aged students who used the learning goals approach as opposed to the performance goals approached had higher grade point averages and thus persisted towards their goals.

Bandura's theory of self-efficacy developed in the early 1980s is a combination of behavioral, affective, cognitive, and social conditioning (Weiner, 1990). The theory stated that the individual self is an active agent in achieving goals (Bandura, 1993, 1995). The premise of self-efficacy states that human behavior is not only purposed, it is based on self-appraisal of capabilities. Sources of efficacy, stated Bandura (1995), is developed by four main forms of influences: (a) mastery experiences, considered to be the most robust influence, are based on prior experiences with successful outcomes; (b) vicarious experiences which are provided by social models give individuals a sense of "what others can do, I can do too"; (c) social persuasion is an external influence that comes from others; and (d) physiological and emotional states inform individuals of their physical and affective capabilities. For instance, headaches for some people are a sign that a specific task is too intense to handle.

In addition to the sources of efficacy influences, Bandura contended that efficacy beliefs are regulated through four major processes:

1. Cognitive processes are the initiators of action. If an individual can visualize and strongly believes in his/her abilities to accomplish a goal, then efforts towards the goal are more concentrated.

2. Motivational processes are highly influenced by efficacy beliefs. Causal attributions, outcome expectancies and developed goals play a role in regulating motivation.

3. Affective processes are indicators of how well a person can cope with stress brought on by unexpected challenges or perceived threats to goal completion.

4. Selection processes are the means by which an individual chooses an ideal environment where he/she can thrive best.

In summary of Bandura's self-efficacy theory, human capability is a result of highly organized, cognitive, social, motivational, affective, and behavioral attributes. A person's perception of their ability to achieve a goal determines the level of self-efficacy that they will have. A person with higher levels of self-efficacy is most resilient in the face of challenges and is more likely to set higher goals for themselves. An individual with low self-efficacy is at risk of higher levels of anxiety, helplessness, and failure.

The attribution theory is another example of a major influence in educational motivation during the 1980s (Bandura, 1998; Elliot & Dweck, 1988; Weiner, 1990). According to Weiner (1985) the attribution theory describes how individuals explain their success or failures. Three causal dimensions were identified in the model which

explained how people define their causes of success or failure. Locus of causality, not to be confused with locus of control, is the first dimension which ascribes success or failure to internal or external events. The second dimension is the stability cause. The stability cause explains the fluctuations that are common to internal and external occurrences. Weiner used the examples of aptitude which is an internal factor that is constant; and mood another internal factor that is subject to change and thus unstable. Weiner further argued that a person who believes a cause is stable and thus produced a desired effect will be more than likely to exhibit the same behavior over again. The third dimension in the model is controllability. Depending on the factor being internal like fear or external like driving proximity to school, a person decides if the factor can be controlled or uncontrolled.

Extensions of the causality dimensions that influence motivation in the classroom are ability, effort, task difficulty, and luck. Ability is said to be internal, stable, and uncontrollable. Effort is internal, unstable, and controllable. Task difficulty is external, stable, and uncontrollable. Luck is considered external, unstable, and uncontrollable for the most part.

In brief of the attribution theory, the model combines cognitive processes along with self-efficacy to explain how individuals ascribe their success or failures. The theory implies that attributing causes for success or failure assist students with maintaining a positive self-concept. Thus, a student who performs well on a test will be more likely to attribute their success to factors that are internal, controllable, and stable. On the other hand, a failing student is more likely to attribute failure to factors that are external, uncontrollable, and unstable. In either instance, the goal behind ascribing the

cause for success or failure is for the person to maintain a favorable perception of their abilities which is at the crux of personal efficacy.

In conclusion of the historical advancements made in the study of motivation in education, behavior and reinforcement models that used experimentation on nonhumans laid the foundation for all motivation models. Cognitive research was most influential to human motivation because it offered theories of how behavior is informed by thought processes. Lewin and Atkinson's theories of human aspiration and achievement had the most influence on the study of human motivation with the notion that perception, choice and persistence are the gauges of behavior. Aspiration and achievement shifted the focus of motivation from mechanical reinforcement to purposeful human behavior that is driven by a need to satisfy internal desires. Through having an understanding of how information is processed, educational psychologists in the early stages of motivational development accomplished their goal to ascertain how individuals used their knowledge to accomplish their goals as oppose to how individuals developed knowledge. In the 1950s leading up to contemporary research in educational motivation, a major shift in psychology occurred which placed more emphasis on internal processes and the self as the lead agent in motivation. As corollary of the shift, in the 1980s and 1990s, educational motivation focused more on achievement, efficacy, and outcome attribution.

Bean and Metzner's Nontraditional Student Attrition Model

Models of persistence, retention, and attrition in higher education are as convoluted as the meanings ascribed to persistence and attrition (Bean & Metzner, 1985; Berger & Lyon, 2005; Cabrera & Castaneda, 1992; Chartrand, 1990; Hagedorn,

2006; Johnson, 1991; Leonard, 2002; MacKinnon-Slaney, 1994; Mortensen, 2005; Pascarella, Duby, & Iverson, 1983; Pascerella & Terenzini, 1979; Ramist, 1981; Tinto, 1987). Tinto's (1987) explanation of attrition best synthesized the themes presented in all college student departure models:

> Student departure takes a variety of forms and arises from a diversity of sources, individual and institution. The variation in causes of departure is, in a very real sense, as varied as the institutional settings from which it arises. Nevertheless, in the midst of this complexity it is possible to identify a number of major causes of student withdrawal from institutions of higher education. (p. 2)

Of the most notable models used to explicate the student attrition process only one model exclusively focuses on the departure of nontraditional-aged adult students from college. The foundation for Bean and Metzner's (1985) model of nontraditional student attrition came from the earlier works of Spady, Tinto, Pascarella, Duby, and Iverson. Spady, credited as the first theorist to develop a model on student departure, borrowed from the sociological model originally conceptualized by Durkheim's suicide model (Bearman, 1991; Habley & McClanahan, 2001). The sociological model of student departure promoted the idea of social integration as the preeminent factor in a student's intent to persist. Accordingly, Spady's model on the undergraduate dropout process emphasized family background and previous educational history as the main determinants of academic potential and institutional assimilation (Johnson, 1991). Social integration is touted as intrinsically rewarding for students who become fully engaged in the collegiate life on campus. The ability to successfully pass courses and

complete a degree program is the extrinsic reward. Hence, Spady asserted that achieving intrinsic and extrinsic rewards through social integration, academic accomplishment, and intellectual development is the key to student persistence.

Subsequently, Tinto's model of student persistence was developed by extending Spady's model and has become one of the most influential frameworks in college student retention research (Bean & Metzner, 1985, Cabrera, Castaneda, Nora, & Hengslter, 1993; Cofer & Johnson, 2000; Halpin, 1999; Johnson, 1991; Kahn & Nautu, 2001; Lau, 2003; Leonard, 2002; Leppel, 2001; Liu & Liu, 1999; Pascarella, Duby, & Iverson, 1983; Pascarella & Terenzini, 1979; Sandler, 2000a; Sorey & Duggan, 2008; Tharp, 1998; Titus, 2004). Similar to Spady's model, Tinto explored student factors such as family background, institutional commitment, intellectual development, and social integration as a longitudinal process to dropout (Johnson, 1991; Tinto, 1987). However, Tinto's model expanded several of the original factors to recognize the interactions among student accomplishments, academic integration, and social adaptation. Thus, Tinto's path model compartmentalized variables to include (a) individual factors, e.g. family background, gender, race and age; (b) commitments on behalf of the student to the institution and vice versa; (c) academic progress, i.e. passing coursework for an extrinsic reward; (d) social integration through interpersonal relationships and personal/intellectual growth, i.e. having a sense of connectedness which produces intrinsic reward; and (e) outcomes from prior commitments, e.g. peer group involvement, campus activities, and faculty interactions.

Essentially, Tinto posited that in order for students to persist, background factors must support the student's decision to be fully committed to the institution and the institution must be prepared to meet the needs of the student. Commitments made by the student and institution will influence overall grade performance, intellectual development, and peer and faculty interaction. As a result of the former stage, commitments between student and the institution will solidify and persistence towards achieving academic goals will increase.

Pascarella, Duby, and Iverson (1983) agreed that Spady and Tinto's models are comprehensive and invaluable to attrition research in higher education; still, they argued that the model focused mostly on traditional-aged students in a college residential setting. Consequently, Pascarella, Duby, and Iverson developed a model that took into consideration students who commute to campus as opposed to live on camps. The rationale for analyzing and later reconceptualizing the original models was to demonstrate how the person-environment fit variable did not support commuter students.

Accordingly, Pascarella, Duby, and Iverson (1983) concluded from their research that although academic integration was still paramount in the attrition process for commuter students, social integration was not statistically significant. Social integration in attrition research is highly linked to Astin (1999) and Chickering's (1972) theories on student involvement. The student involvement theory implies that environment assimilation is integral to intellectual growth and is the pathway towards persistence. Social integration on a commuter campus is statistically insignificant due to other explanations that are not congruent with the implications of the student

involvement theory and the path to attrition. For instance, Pascarella, Duby, and Iverson ascertained that on one hand, students who do withdraw from commuter campuses tend to do so because of lack of opportunities available to get involved and not because of their failure to get involved when opportunities arise. Therefore, attrition from the commuter campus in this case may be a result of personality type or person-environment fit. On the other hand, students who choose and thrive at commuter schools are students who are not necessarily interested in or have a need for social integration because of other outside commitments. Hence, background variables that include factors such as affiliation needs, i.e. the need to belong, and the mediating variable, the intent to persist, are the hallmarks of Pascarella, Duby, and Iverson's reconceptualization of Tinto's model.

Bean and Metzner's model of nontraditional student attrition was influenced by the preliminary works of Spady (as cited in Johnson, 1991), Tinto (1987), Pascarella, Duby, and Iverson's (1983), and Bean's (1979a, 1979b, 1985) seminal research on student attrition. Based on the conclusions made from earlier studies on student attrition in mostly traditional residential colleges, Bean and Metzner (1985) asserted that no inferential studies had been conducted or theoretical frameworks had been developed on nontraditional students. Bean and Metzner also concurred with Pascarella, Duby, and Iverson (1983) that linking the social integration variable to attrition was not apposite in a model for nontraditional students. Therefore, as shown in Figure 2, Bean and Metzner constructed a similar longitudinal model that retained the background and academic variables from traditional models of attrition and included three new major variables. The three added variables include academic outcome,

environmental, and psychological factors to explain the direct and compensatory effects that can lead to students dropping out. The major direct effects in the model are variables that have the most influence and thus lead to a direct path to a student's departure. For example, students who have poor study habits, inadequate academic advising, high absenteeism, uncertain majors, and insufficient courses to choose from are at highest risk of adverse academic performance. Poor grades are therefore directly related to attrition according the model. Indirect effects within the model stated Bean and Metzner (1985) are variables that can be analyzed for statistical significance. High school grades and their statistically significant correlations to college performance are used to illustrate an indirect effect on attrition. Within the model there are also

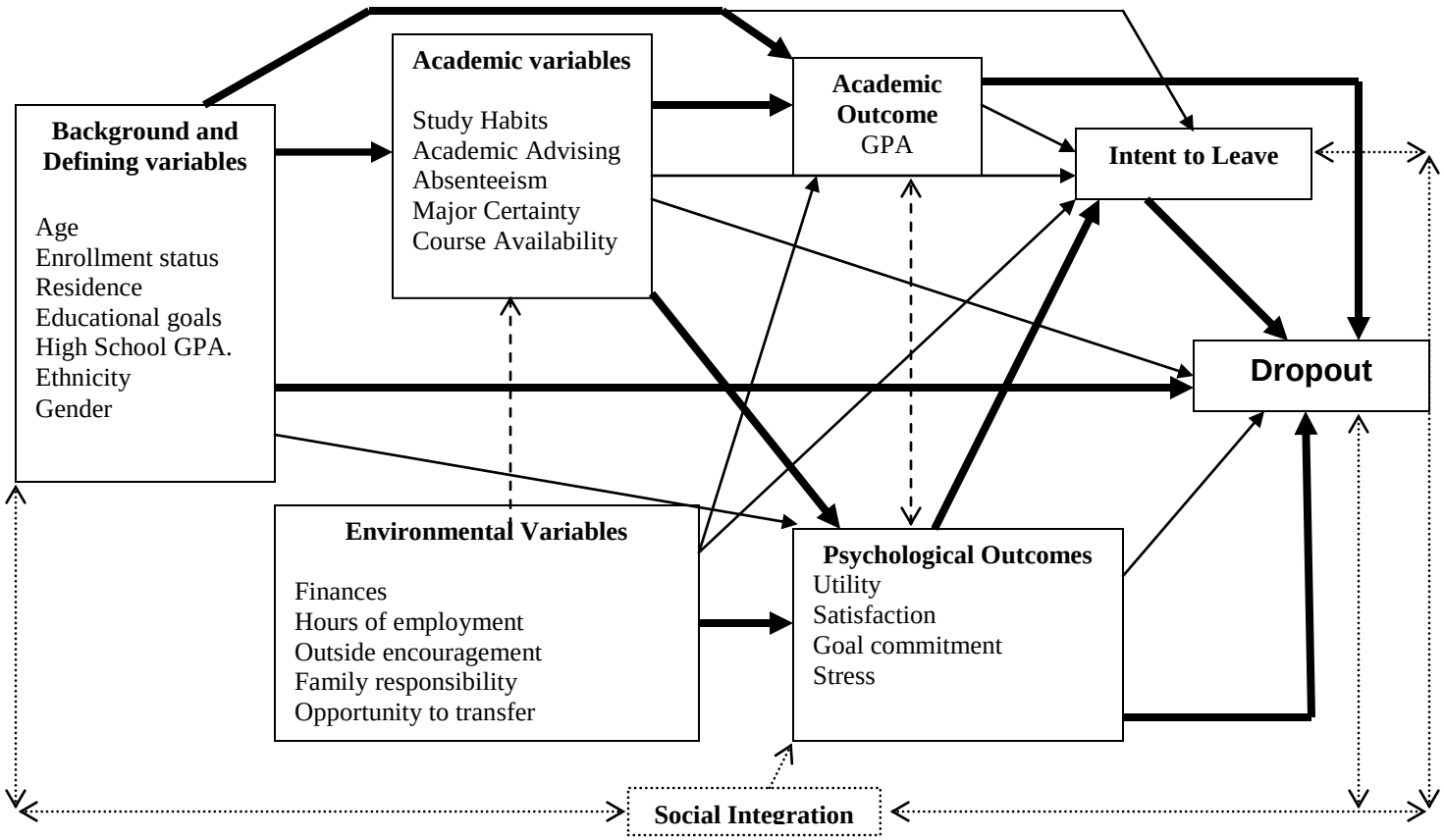

Figure 3. Bean and Metzner's Model of Nontraditional Student Attrition

Key: Direct effect presumed most important — Direct effects

Compensatory interaction effect — Possible effects

compensatory effects. Compensatory effects explain how one variable interacts with another variable. An instance of this is an environmental factor such as child care. If a student with young children has child care needs secured during time that they are in school and the student is adjusting well in school and receiving institutional support, then the persistence is favorable. Conversely, if an adult student is adjusting well in school but their work schedule will not allow time to take classes on a consistent basis, then attrition is likely. Another combination to explain compensatory interaction effect is when academic performance is poor but a student is satisfied with institutional support which lowers their stress level, then attrition is less likely. In short, environmental support compensates for weak academic support and psychological factors compensates for academic outcome.

Background and Defining Variables

Background and defining variables presented in traditional attrition models were retained in the nontraditional model because they explain how past behaviors predict future behaviors (Bean & Metzner, 1985; Pascarella, Duby, & Iverson, 1983; Pascerella & Terenzini, 1979; Tinto, 1987). In addition to the gender, race, educational goals, and high school performance variables, Bean and Metzner (1985) added three more variables that are characteristic of nontraditional students. The variables are age, enrollment status, and residence.

Age as it relates to nontraditional students is considered as an indicator of other major factors that indirectly affect attrition. Factors such as family responsibilities, hours of employment, and absenteeism are assumed to have a positive correlation to age contended Bean and Metzner (1985). Thus, older students are most likely to dropout at

higher rates because of life situations that accompany their age.

Enrollment status refers to the number of academic credit hours a student takes per semester. Students who take 12 or more credit hours are considered full-time as opposed to part-time in most postsecondary institutions. Part-time students are considered to be at greater risk of attrition due to other outside responsibilities that affect hours spent on studying and attending classes.

The residence variable is a factor that typically distinguishes nontraditional students from traditional students. Residence in the nontraditional model is a controlled variable because of commuter students' low affiliation needs and higher levels of commitment to activities outside of the college setting. Therefore, social integration in the nontraditional model is considered a weak effect on the attrition process.

Academic Variables

The second major variable that was retained from traditional attrition models and presented in Bean and Metzner's (1985) model of nontraditional attrition is the academic factor. In the nontraditional model, academic variables do not have a direct effect on attrition in the manner that they have in the traditional attrition model. Instead Bean and Metzner postulated that academic variables have indirect effects on attrition through academic outcome, psychological outcome variables and one of the major variables, the intent to leave. Study skills, absenteeism, major certainty, and course availability are factors which are prominent under the academic variable.

Nontraditional-aged students are known to have delayed enrollment (Choy, 2002). As a result of a delay in enrollment, adult students tend to enter college with a need for remediation in study skills according Bean and Metzner (1985). Thus,

possessing ineffective study skills and performing poorly in the coursework is a factor that indirectly affects attrition through withdrawing or being released for not maintaining an adequate grade point average [GPA].

Absenteeism is a factor that is usually accompanied by low academic confidence and is positively related to attrition Bean and Metzner hypothesized. Absenteeism is also an indicator of dissatisfaction with the role as a student and insufficient grades. Work and family responsibilities are included as having a positive relationship to the amount of days missed from class.

Bean and Metzner (1985) cited major certainty as a variable that is positively linked to persistence. Research supported the notion that students, regardless of traditional or nontraditional status, will have higher degrees of persistence when they were sure about their major (Chartrand, 1992; Compton, Cox, & Laanan, 2006; Donaldson, 1999; Eschenmann, & Olinger, 1992; Ferguson, 2007; Graham, & Donaldson, 1999; Idaho State Occupational Information Coordinating Committee, Boise, 1993; Kerka, 2001; Kroth, & Boverie, 2000; MacKinnon-Slaney,1994).

Courses that are available during the times and days needed is a major factor of attrition for the nontraditional student. Course availability is of utmost importance for nontraditional students who are most likely to arrange school around work and family responsibilities as opposed to arranging work and family around class schedules.

Environmental Variables

Environmental factors are issues that the institution has very little contorl over but are detrimental to persistence. Finances, work schedules, lack of emotional support, family responsibilities, and the opportunity to transfer to another institution are factors

which have direct and compensatory interaction effects. Bean and Metzner (1985) concluded that environmental variables probably have the highest influence on a student's departure from an institution. Because most nontraditional students have background variables that include working full-time and attending school part-time and family responsibilities, the need to feel financially stable and supported by employers and family is paramount to persistence. The opportunity to transfer refers to mostly community college students who desire to matriculate into a four-year college to complete their bachelor's degree. Hence, environmental variables that are unfavorable will affect a student's intent to leave despite institutional support.

Psychological Outcomes

Psychological outcomes are variables that include a student's perceived usefulness of their college education, satisfaction with having a student status in college, importance of completing a college degree, and levels of stress. The factors that are within psychological outcomes are the direct result of academic and environmental variables. Utility of the degree, satisfaction with being a college student, and commitment to an educational goal are deemed to increase persistence towards completion. Perceived levels of high stress decreases the intent to stay enrolled.

Intent to leave

Bean and Metzner (1985) found in their review of attrition literature that departure from school was positively related to a student's intent to leave their current institution before graduating. Adding the intent to leave variable to a nontraditional model was necessary to explain (a) why students leave in spite of institutional commitment, (b) attrition in short-term studies, and (c) other mitigating circumstances

that are unique to nontraditional students, e.g. transfer to another institution, and thus can be used as control factors. Most importantly, the intent to leave variable minimizes arriving at the wrong conclusions about why nontraditional-aged students depart their institution prior to the completion of their educational programs.

Academic Outcome

A student's academic performance from an institution's standpoint is measured by a standard minimum level of achievement. Failure to adhere to the standards is usually a justification for dismissal (Bean & Metzner, 1985). However, as Spady (Johnson, 1991), Tinto (1987) and Bean (1979a, 1979b, 1985) postulated, maintaining a high GPA has both intrinsic and extrinsic rewards. The intrinsic reward is the feeling of accomplishment. The extrinsic reward is persistence towards completion and receiving a degree or certificate. Therefore, Bean and Metzner (1985) theorized that a student's GPA has a direct effect on attrition through a student's intent to leave.

Social Integration Variables

The social integration variable is a factor conceptualized in Spady (Johnson, 1991) and Tinto's (1987) models of attrition. The variable explicates how a student's interaction with the college environment increases the probability of persistence. Specifically, social integration explains the quality of relationships that the student has with peers and faculty, involvement in extra-curricular activities, and overall satisfaction with and assessment of those social experiences (Bean & Metzner, 1985). Studies cited by Bean and Metzner demonstrated that nontraditional-aged students found little benefit in having involvement on campus beyond activities in the classroom. As a result of studies that did not show statistically significant positive correlations

between nontraditional persisters and social integration, Bean and Metzner included this variable only to demonstrate possible indirect effects. Family and other outside encouragement which is included in the environmental variables are considered much stronger indicators of nontraditional student persistence than social integration argued Bean and Metzner.

In conclusion of the presentation on Bean and Metzner's model of nontraditional student attrition, a model of attrition that takes into consideration the unique circumstances and needs of the adult student is necessary to fully understand and explain nontraditional student attrition. Seminal attrition studies conducted on traditional students provided the groundwork needed to develop other variables related to nontraditional persistence. Background variables presented in original attrition models did not adequately expound on how age is positively related to family responsibilities and full-time employment. Academic variables for nontraditional-aged students unlike with traditional-aged students have compensatory interaction effects with environmental variables and direct effects on psychological variables. Psychological variables also have compensatory interaction effects on a student's overall GPA. The major difference between the nontraditional attrition model and traditional attrition models is the minimal effect of social integration and the major effect of environmental factors.

Accordingly, the model of nontraditional student attrition is helpful with understanding both extrinsic and intrinsic factors that affect adult students. However, Bean and Metzner (1985) contended that further research is still needed on nontraditional students that is "…(a) based on a theory, (b) does not emphasize social

integration, (c) includes variables from students' external environments, and (d) uses multivariate research designs" (p. 528). Additionally, attrition research using nontraditional students should examine indirect effects to enhance educator's understanding of the dropout process.

Markus and Nurius' Possible Selves Construct

Nontraditional college students bring a rich repertoire of experiences, needs, and unique circumstances that distinguish them from traditional students. Choy (2002) reported that nontraditional students account for 73% of all undergraduate students. Of the 73% enrolled, at least 69% are highly nontraditional which means that they are students 24 years old and older. Aslanian and Brickell (1980) and Levinson (1986) contended that adult students who attend college do so out of the need to address life transitions. Knowles (1990) recognized that adult students have learning characteristics that differentiate them from traditional-aged students. Donaldson (1999), Eppler, Carsen-Plentl and Harju, (2000), Graham and Donaldson (1999), Graham, Donaldson, Kasworm, and Dirks (2000), Justice and Dornan (2001), and Kasworm (2003) found differences in how adults make meaning out of their college experiences and that their achievement orientations are geared toward learning beneath the surface. Super's (1953) stages of career development recognized the concerns and challenges that adults face when making transitions to new careers. Finally, Bean and Metzner (1985) argued that the path to attrition for adult students should consider age, environmental variables and psychological factors that influence nontraditional-aged students' decisions to dropout from college.

Despite the vast attention given to nontraditional-aged students, models of attrition and theories about adult student experiences still do not account for intrinsic mediating variables that explain the relationship between institutional effectiveness and an adult student's intent to persist (Bailey & Alfonso, 2005; Bean & Metzner, 1985; Berker, Horn, & Carroll, 2003; Bushy, 1992; Butler, 2005; Chao, DeRocco, & Flynn, 2007; Chartrand, 1992; Cofer & Somers, 2001; Compton, Cox, & Laanan, 2006; Cross, 1981; Donaldson, 1999; King, 2002; Horn & Griffith; Kasworm, 2003; Kinsella, 1998; Laanan, 2003; Lawler, 1991; MacKinnon-Slaney, 2001; McGivney, 2004; Quimby & O'Brien, 2004; Sandler, 2002; Stahl & Pavel, 1992; Taniguchi, 2005; Terry, 2006)

The possible selves construct as conceptualized by Markus and Nurius (1986) is a relatively new concept that is considered as a link between learning goal orientation and the motivation to persist toward goal completion (Erikson, 2007; Inglehart, Markus, Brown, & Moore, 1987; Oyserman, Bybee, & Terry, 2006; Plimmer & Schmidt, 2007; Rossiter, 2007a; Thorne, 1963). It also provides a probable mediating intrinsic variable between institutional support services effectiveness and an adult student's decision to complete their academic program (Bean & Metzner, 1985; Hoyle & Sherrill, 2006; Pizzoloto, 2006). Markus and Nurius (1986) postulated that the possible selves construct explores the self in future orientations and is one of few constructs that attempts to relate an individual's performance to their belief in what is possible for them to become. Specifically, Markus and Nurius defined possible selves as "…the direct result of previous social comparisons in which the individual's own thoughts, feelings, characteristics, and behaviors have been contrasted to those of salient others. What others are now, I could become" (p. 954).

Grounded in social cognitive, behavioral, and working self-concept theories, the possible selves construct focuses on the self as constantly responding to and evolving according to life's circumstances (Bybee & Wells, 2002; Hoyle & Sherrill, 2006). As a social cognitive construct, the possible selves is supported by Bandura's (1995) self-efficacy processes that involve four major influences: (a) mastery experiences, considered to be the most robust influence, and are based on prior experiences with successful outcomes; (b) vicarious experiences which are provided through social models and give individuals a sense of "what others can do, I can do too"; (c) social persuasion is an external influence that comes from others; and (d) physiological and emotional states to inform individuals of their physical and affective capabilities. In addition to the sources of efficacy influences, the possible selves construct is regulated through the four major processes: cognitive, motivational, affective, and selection.

Premised on behavioral theories, the possible selves construct encourages individuals to take appropriate actions through self-regulation to accomplish their desired selves and avoid their undesired selves (Pizzolato, 2006; Strahan & Wilson, 2006). Similar to Bandura's theory of self-efficacy, motivational processes thrive on a person's ideal selves that are the result of self-definitions (Markus & Nurius, 1986). Self-definitions are an individual's perception of their readiness to engage in certain behaviors. In a longitudinal analysis conducted by Inglehart, Markus, Brown, and Moore (1987), it illustrated how possible selves are directly related to the motivation process by providing a person with goals to strive for and the perseverance to reach their goals. Therefore, students who are convinced that they can be what they envision

themselves to be, will more than likely persist towards their educational goals (Inglehart, Markus, Brown, & Moore, 1987; Markus & Nurius, 1986).

As a career related construct, Chartrand's (1992) examination of the model of nontraditional attrition supported Bean and Metzner's assertion about institutional support factors such as academic advising and major certainty as having the greatest influence on adult student's decision to leave. Consequently, Chartrand (1992) and MacKinnon-Slanney (2001) suggested that institutions make degree planning and career development a priority for nontraditional students. Thus, the acknowledgement of the career possible selves construct for adult students allows for a connection to be made between institutional support services and the motivation to persist (Frazier & Hooker, 2006; Hill & Spokane, 1995; Inglehart, Markus, Brown, & Moore, 1987; Oyserman, Bybee & Terry, 2006).

The career possible selves construct in the Bean and Metzner's (1985) model of nontraditional student attrition relates to the psychological variable which is considered one of six major variables in the model. According to the process leading to attrition, academic variables and a student's intent to depart is mediated by psychological outcomes. Thus, the possible selves construct is hypothesized to be a latent psychological outcome which serves as a mediator between institutional support and a student's motivation to persist.

In conclusion, the possible selves construct in academic advising and career development is useful for understanding the adult learner across the life span which can aid administrators in adult education settings with apprehending the effects of life transitions on career choice (Cross & Markus, 1991; Hill & Spokane, 1995; Plimmer &

Schmidt, 2007; Rossiter, 2007a, 2007b). Assisting adults with navigating through career stages can minimize student's frustration and increase persistence towards goal completion (Inglehart, Markus, Brown, & Moore, 1987; MacKinnon-Slaney, 1994). Ultimately, the possible selves construct can assist college administrators and faculty with closing the gap between where students are now to where students desire to be upon completion of their educational program (Babineau & Packard, 2006; Markus & Nurius, 1986).

Summary

In conclusion of the literature review related to the career possible selves construct as a mediating variable of institutional support services effectiveness and the motivation to persist among nontraditional-aged college students, studies show that adult students are a growing population with specific needs and unique concerns that must be addressed in order to close the gap between access and success (Choy, 2001; Bailey and Alfonso, 2005; Billington, 1996; Brag, Kim, & Barnett, 2006; Chao, DeRocco, & Flynn, 2007; Council for Adult Experiential Learning, 2000; Ferguson, 2007; Hagedorn, 2006; Hensley & Kinser, 2001; Hoachlander, Sikora, Horn, & Carroll, 2003; Horn & Nevill, 2006; Laanan, 2003; Leonard, 2001; MacKinnon-Slaney,1994; McGivney, 2004; Marti, 2008; Pusser, Brenenman, Gansneder, Kohl, Levin, Milam, & Turner, 2007; and Wonacott, 2001)

Specifically literature related to community colleges indicated that the establishment of the two-year postsecondary system was based out of the needs to provide access to nontraditional students and meet labor demands. Of the nontraditional students served through the community college system, at least 53% are

over the age of 24 years old (Horn & Griffith, 2006). In spite the gains made in access for nontraditional students, Berker and Carroll (2003) reported that only 38% of all adult students persisted toward attainment of degrees or certificates.

Descriptive studies conducted on nontraditional-aged students illustrated that persistence rates are lower than traditional-aged students due to some salient differences. In terms of meta-cognitive differences, researched has shown that nontraditional-aged students have a tendency to have a learning oriented achievement approach more so than traditional-aged students (Elliot & Dweck, 1988; Eppler, Carsen-Plentl & Harju, 2000; Grant & Dweck, 2003). Knowles (1990) argued that the most significant differences between traditional-aged students and nontraditional-aged are adult students' life experiences, intrinsic motivation, readiness to learn, self-concept, and problem-solving needs.

Literature on the evolution of motivation in higher education delineated history of motivation in education which began with behaviorism (Weiner, 1990). Cognitive theories expanded the behavioral models of motivation with implications for how individuals use the environment and past experiences to inform their thought processes (Hergenhahn & Olson, 2001; Weiner). Maslow's (1943) theory of human motivation introduced the importance of understanding the role of intrinsic stimulus in achieving goals. Bandura's social-cognitive theory combined behaviorism, thought processes, motivation, and social influence as an explanation of how having confidence in one's ability is a key to academic achievement. Elliot & Dweck's (1986) extensive research in motivation achievement presented the effects of learning-oriented achievement and performance-oriented achievement on college persistence.

Lastly, the possible selves construct as presented in the literature provided relevance of the academic, psychological and departure intention elements found in the Bean and Metzner's model of nontraditional student attrition (Markus & Nurius, 1986). As an amalgamation of behavioral, social-cognitive, existential, motivational and psychological variables, the possible selves construct addresses the adult student across the life span and bridges the gaps between career aspiration, academic motivation and goal achievement (Babineau & Packard, 2006; Cross & Markus, 1991; Hill & Spokane, 1995; Markus & Nurius, 1986; Plimmer & Schmidt, 2007; Rossiter, 2007a, Rossiter, 2007b).

CHAPTER III

METHODS

Introduction

This study explored the relationship of the career possible selves construct as a mediating variable between the institutional support services effectiveness and the motivation to persist among adult students attending one public two-year community college in the southeastern United States. The first section presents the research questions and theoretical framework that guided the study. The second section details the development of the survey instrument used in the study. The third part of this chapter discusses the sample population. The fourth component provides the methods used to collect data. The last segment presents information regarding how the data were analyzed.

Research Questions

The following research questions directed the study:

1. What is the relationship, if any, between institutional support effectiveness and adult students' motivation to persist?
2. What is the relationship, if any, between the career possible selves construct and institutional support effectiveness?
3. What is the relationship, if any, between the career possible selves construct and adult students' motivation to persist?

4. What are the relationships, if any, between institutional support effectiveness, career possible selves construct and adult students' motivation to persist?

Theoretical Framework

Bean and Metzner's (1985) model of nontraditional undergraduate student attrition is a path analysis model of factors that lead to student drop-out. The conceptual model detailed five major variables as they relate to direct and indirect paths to the drop-out process. Academic variables included study habits, institutional advising as it relates to career development, absenteeism, major certainty and course availability. Psychological variables are perceived usefulness of pursuing a college education, satisfaction with the institution, commitment to pursuing educational goals, and stress. The third major variable, environmental, comprised finances, hours of employment, outside encouragement, family responsibilities, and opportunity to transfer. The intent to leave variable explained additional explanations for attrition not linked to other variables found in the model. Lastly, background variables such as age, enrollment status, campus residency, educational goals, high school G.P.A., gender, and ethnicity have been cited as a major influence on student attrition. Background variables, as postulated by Bean and Metzner (1985), are not indigenous to nontraditional students and thus are not included as having a significant impact on attrition of adults because these variables are applicable to both traditional and nontraditional students. The other non-major variables such as social integration are indirect variables that address the extent and quality that students are integrated into the campus environment.

Bean and Metzner's (1985) model as presented in Figure 3 has been tested under various conditions using path analysis modeling (Chartrand, 1992). Path analysis modeling is a form of causal or regression analysis that allows for the examination of measured and latent variables (Garson, 2008). The results gathered from various studies that have tested the model's path to attrition on four-year campuses have demonstrated that the roles of institutional, psychological, and environmental variables have a statistical significant impact on students' intent to drop-out or persist (Cabrera, Nora, & Castaneda, 1993; Chartrand, 1992). Non-cognitive factors such as encouragement from others, low-stress, and high levels of perceived usefulness of their education were salient in the testing of the path but not perceived to be dominant in the path of dropping out (Bean and Metzner, 1985; Cabrera, Nora, & Castaneda, 1993; Chartrand, 1992).

Bean and Metzner (1985) contended "Due to the large number of paths and the dearth of path analyses using nontraditional students as subjects, indirect effects were not discussed in detailed. Future researchers should study indirect effects to enrich our understanding of the dropout process" (p. 529). This study explored the latent indirect effects of the career possible selves construct among nontraditional adult students enrolled at one public two-year community college.

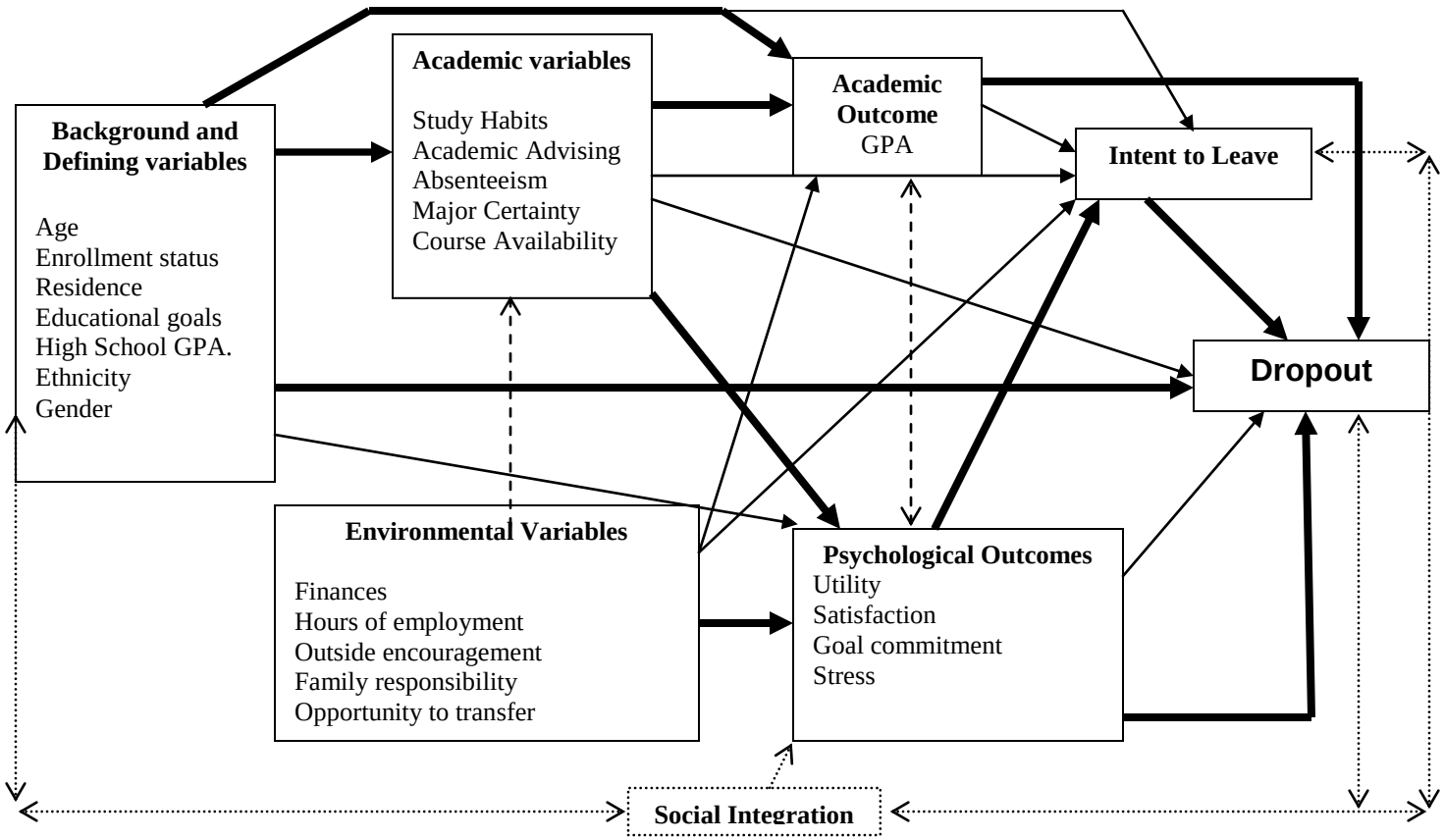

Figure 3. Bean and Metzner's Model of Nontraditional Student Attrition

Key: Direct effect presumed most important — Direct effects

Compensatory interaction effect — Possible effects

Instrumentation

A researcher-designed demographics questionnaire and survey were used in this study. The demographic questionnaire asked for information on the participant's age, gender, race, declared education program (academic or technical), student status (part-time or full-time), and either parent's highest level of college education. The survey instrument was based on Bean & Metzner's (1985) model of *Nontraditional Student Attrition*, the *Noel-Levitz Student Satisfactory Inventory* (1993), *Adult Career Concerns Inventory* (Super & Thompson, 1985), and *Possible Selves Questionnaire* (Markus, 1987). Two independent expert panels, the Q-sort method, a pilot study, and statistical analysis were used to substantiate the validity of the instrument.

Demographics Questionnaire

Background variables, as postulated by Bean and Metzner (1985), are variables that are indigenous to each individual. Variables such as age, gender, race, high school G.P.A., socioeconomic background, student enrollment status, educational goals, and a student's residence are considered as having an indirect effect on a college student's intent to persist. This study used a demographic questionnaire which assessed student background data to determine if pre-existing variables differ between subjects as they relate to a student's motivation to persist.

Survey Instrument

The instrument used in this study was a researcher-developed survey. Surveys are used to provide a quantitative description of phenomena occurring in a population by studying a sample of that population (Creswell, 2003). For this survey instrument, the development of the survey was constructed in three stages. The first stage engaged

the expertise of a panel of college student services professionals and university instructors. The panel was responsible for selecting 21 statements out of 30 possible statements as they related to the three examined variables. The second stage involved a second panel of experts who matched the selected 21 survey statements to the three examined variables using the Q sorting method. The final stage engaged a pilot study to measure the survey instrument's validity and the instrument's appropriateness (e.g., wording, scales, and format).

Expert Panels

Two independent panels of experts were formed using administrators, faculty, and undergraduate/graduate students from a four-year university and community college. The purpose of the panels was to select survey statements that best represent the three variables being tested. Of the 30 statements (ten statements represented each of the three variables) provided by the researcher, the first panel was asked to select 21 items (seven statements to represent each variable). The results of the first panel's selection were used for the Q-sort method conducted by the second panel.

Q-Sorting Method

The method of Q-sorting was first introduced by British physicist psychologist William Stephenson in the 1930's and later developed in the United States by Professor Stephen Brown (Block, 1961; Shinebourne & Martin, 2007). The goal of Q-sorting is to have individuals explain or give meaning to phenomena or constructs that have abstract meaning and mass perception (Shinebourne & Martin, 2007). Participants in a Q-sort or Q-sorters as so referred, have the task of identifying broad categories or common themes found in subjective matters based on their individual perception

(Block, 1961; Brown, 1981; Kerpelman, 2006; Shinebourne & Martin, 2007; van Exel, 2005). Analysis involves a statistical measure that determines the most common themes which best describe the phenomenon under investigation. Q-sorters in essence establish the content validity of the statements that are used in a survey instrument (Kerpelman, 2006; Shinebourne & Martin, 2007; van Exel, 2005).

The three variables examined in this study, institutional support services effectiveness, the career possible selves construct, and the motivation to persist are all phenomena subject to individual interpretation. The 21 statements (seven representing each variable) recommended by the first panel of experts served as the Q-sort statements also known as descriptors (Witte, 1997). The Q-sorters had the task of matching the 21 descriptors with one of the three variables also known as strand identifiers. Upon the completion of the sorting, the descriptors and strands were reviewed for agreement and revisions were made as required. The goal of the sort was to reach 95% or higher match of the descriptors and strands among the panel members. The final analysis culminated the first draft of the survey instrument.

Pilot Test

Upon the analysis of the Q-sort, items found in the final results were used to draft the survey instrument (Appendix A). Permission was sought and granted by Auburn University and Troy University's Institutional Review Board (Appendices B and C) and a pilot test was conducted using the draft survey instrument on a student population that was similar to the population used in the research study. The pilot group comprised a random sample of 126 (N=126) nontraditional adult students enrolled in Associate and Bachelor Degree programs at a four year university. The 21-

item survey instrument was designed to measure each participant's perception about institutional support services effectiveness, their career possible selves, and their motivation to persist. Thus, it was divided into three sections that corresponded to each of the three factors. The survey asked participants to respond to each of the 21 items by indicating whether they "strongly agreed," "agreed," "disagreed," or "strongly disagreed" to each statement. Administration of the survey is not timed and took approximately 10 minutes to complete. The objectives for the pilot study measured for internal consistency reliability of the survey, instrument's appropriateness (e.g., wording, scales, and format), and survey item validity using confirmatory factor analysis.

Internal consistency reliability is a statistical method that assesses whether or not individuals respond consistently on an instrument that measures traits or constructs each time the instrument is used (Colosi, 1997). The computation from the internal reliability test yields a Cronbach's alpha score between zero and one. Confirmatory factor analysis is a technique used to identify commonalities among measures (survey items) and their relationship to factors (variables) that may underlie the measures (Field, 2005; Garson, n.d.; Green & Salkind, 2008). The results from the internal consistency reliability test yielded the following Cronbach's alpha coefficient scores: Institutional Effectiveness (.90), Career Possible Selves Construct (.63), Persistence (.71), and overall instrument (.83). The output on the confirmatory factor analysis showed coefficients and factor loadings that were adequate and appropriate. Accordingly, the instrument showed that all measured items had high internal consistency reliability, correlate fairly well, and none were overlapping significantly.

Sample Population

The purpose of this study was to examine the career possible selves construct as a mediating variable between institutional support services effectiveness and an adult student's motivation to persist. According to Cohen (1992), studies using regression analysis must consider power analysis when determining the minimum sample size. Power analysis is paramount for testing the null hypothesis in social and behavioral science studies (Cohen, 1992). In this study, the statistical analysis determined the extent of the relationship between institutional support services effectiveness and adult students' motivation to persist controlling for the effects of the career possible selves construct. The null for this study was there are no relationships among the variables. In order to minimize Type I error in the decision to reject the null, the sample population must be adequate in size (Cohen, 1992). Thus, Green (1991) recommends studies that use regression analysis to consider the "rule of thumb" method to determine sample size. The "rule of thumb" method takes into account the number of predictors, effect size, power (1-β), and the alpha criterion (1991). The sample size for this study based on the rule for studies evaluating partial correlations is $N \geq 89+ (m-1)$ with m equaling the number of predictors and instruments. The predictors or variables for this study are institutional support services effectiveness, career possible selves construct, and the motivation to persist. The instruments are the demographic questionnaire and the researcher developed instrument. Accordingly, the minimum sample size was N=93 participants enrolled in one public community college in the southeastern United States.

The participants in this study included a random sample of 108 students enrolled in a public community college in the southeastern United States. The participants were

enrolled in technical and academic degree programs. Demographic information was obtained in this study using a questionnaire designed by the researcher.

Data Collection

Permission from the President of a two-year college was granted in writing to solicit students' participation for the study (Appendix D). Through the coordination with the research site's Director of Institutional Research and Advancement (IRA) days and times were designated to administer the survey. The Director of IRA was provided full disclosure of the nature of the study from the principle investigator. Participants were approached in the 2009 summer semester at the end of their class time. The investigator gave a verbal and written explanation of the study and participants were provided a research packet that had a copy of the Auburn University's IRB approved Information Letter (Appendix E) and the demographic questionnaire and survey instrument. The collection of data was completely anonymous and asked for no identifiable information from the research participant. Thus, each participant was informed that by completing the research instruments, it was their assent to participate in the study and a signed consent form was not needed. However, a copy of the informed consent/assent letter was retained by the participant for their personal file. The investigator advised the participants of the approximate time that it will take to complete survey. Once the questionnaire and survey were completed in class, the participants were directed to hand the research forms to the primary investigator. The primary investigator secured all collected surveys in an envelope.

Once data were collected, all information was handled and kept with the primary investigator at the investigator's home. All data were downloaded and analyzed using

SPSS 16.0 for Windows software that is loaded on the researcher's laptop. The laptop is password protected for confidentiality purposes.

Statistical Analysis

For this inferential study, partial correlation or causal analysis was used to examine the path of institutional support services effectiveness, adult students' motivation to persist, and the career possible selves construct. The method involves examining the correlation between two variables while controlling for a third or more variable (Levin & Fox, 2006). Further analysis included a one-way analysis of variance (ANOVA) to evaluate the relationships of between subjects to the dependent variables.

According to Green and Salkind (2008), partial correlations are computed to examine how two or more variables are correlated. Correlations can by explained by the common cause hypothesis or mediator variable hypothesis. The mediator variable hypothesis was used to examine whether or not the career possible selves construct mediates institutional support services effectiveness and adult students' motivation to persist. Results using the partial correlations can yield (a) the relationship between institutional support services effectiveness, the career possible selves construct and the motivation to persist; (b) the relationship between institutional support services effectiveness and the career possible selves construct; (c) the relationship between career possible selves construct and the motivation to persist; and (d) the relationship between institutional support services effectiveness and the motivation to persist controlling for or partialling out the career possible selves construct. The mediator variable hypothesis stipulates that the institutional support services effectiveness variable and the motivation to persist variable are correlated because the mediating

variable (career possible selves) stands between the two variables in the examined path.

Correlations describe the degree linearity among variables. A relationship between two or more variables can be positive, negative, or zero (Levin & Fox, 2006). A positive correlation indicates that when the scores on the dependent variable are high, then the scores on the independent variable are high. A negative correlation indicates that when the scores on the dependent variable are low or high, then the scores on the independent variable are the opposite of the dependent variable. A zero or null correlation says that when the scores on the dependent variable are low or high, then the independent scores are both low and high.

Gender (male or female) the independent variable, and the overall score for the institutional support services effectiveness, career possible selves construct, and motivation to persist dependent variables, were examined using the analysis of variance. Academic program choice (Associates or Technical) and the combined dependent variables, institutional support services effectiveness, career possible selves construct, and the motivation to persist were analyzed through ANOVA. Student enrollment status (part-time vs. full-time) the independent variable, and institutional support services effectiveness, career possible selves construct, and the motivation to persist combined means, the dependent variable were examined using the analysis of variance. Parents' highest level of education (parents with a four year degree and those with less) the independent variable, and the dependent variables, institutional support services effectiveness, career possible selves construct, and the motivation to persist were analyzed through ANOVA.

Summary

This chapter presented the purpose of the study, research questions and theoretical framework used to guide the study. Additionally, it discussed the sample population, instrumentation, and data collection techniques. The validity of the instrument was confirmed through the use of two independent panels of experts, the Q-sort method, a pilot study, confirmatory factor analysis, and an internal consistency reliability test. Data collection is in compliance with the research guidelines as set by the Auburn University Institutional Research Board. All questionnaires, consent forms, and a copy of the instrument are included in the appendices and attachments sections.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to explore the relationship of the career possible selves construct as a mediating variable between institutional support services effectiveness and the motivation to persist with adult students attending one public two-year commuter college in the southeastern United States. An overview of the study was presented in Chapter I. Chapter II provided a review of literature as related to the historical roles American community colleges have played in education for nontraditional students, the characteristics of the adult learner, the theories of motivation, an adult student attrition model, and the possible selves construct. Chapter III described the development of the research instrument, sample population, and methods used to collect and analyze data. Chapter IV details the results from the analyzed data.

Research Questions

The following research questions directed the study:

1. What is the relationship if any, between institutional support services effectiveness and nontraditional adult students' motivation to persist?
2. What is the relationship if any, between the career possible selves construct and institutional support services effectiveness?

3. What is the relationship if any, between the career possible selves construct and nontraditional adult students' motivation to persist?

4. What are the relationships if any, between institutional support services effectiveness, career possible selves construct and nontraditional adult students' motivation to persist?

Instrument

A researcher-designed demographics questionnaire and survey were used in this study. The demographic questionnaire asked for information on the participant's age, gender, race, declared education program (academic or technical), student status (part-time or full-time), and either parent's highest level of college education. The survey instrument was based on Bean & Metzner's (1985) model of *Nontraditional Student Attrition*, the *Noel-Levitz Student Satisfactory Inventory* (1993), *Adult Career Concerns Inventory* (Super & Thompson, 1985), and *Possible Selves Questionnaire* (Markus, 1987). Two independent expert panels, the Q-sort method, a pilot study, and statistical analysis were used to substantiate the validity of the instrument. Internal reliability was assessed using Cronbach's Alpha test. The final draft of the survey comprised 21 questions divided by three sections of seven questions. Each section of seven questions related to one of the three examined variables. Participants were asked to respond to each question by using a rating scale which indicated whether they "strongly agreed," "agreed," "disagree," or "strongly disagreed".

Demographics Profile

The total sample included N=108 participants. The demographics questionnaire consisted of six sections: age, gender, race, academic program, enrollment status, and

parent's highest level of education. The results from the age section yielded an age range of 19 to 63 years with a mean of 28.45 years, a mode of 19 years, and median of 25 years. In reference to the participants' gender, 63 were females and 45 were males. Table 3 presents the distribution and percentages of participants by gender.

Table 3

Distribution and Percentages of Participants by Gender/Sex

Gender	*n*	***%***
Female	63	58.3%
Male	45	41.7%

***N*=108**

The race section asked participants to identify themselves as one of the following: African American, Caucasian, Hispanic/Latino, Asian, Native American, or other (please specify). Out of the 108 participants, 70 identified themselves as African American, 36 participants selected Caucasian, one identified Hispanic/Latino, and one selected other. The distribution and percentages of participants by race is presented in Table 4.

Table 4

Distribution and Percentages of Participants by Race

Race	***N***	***%***
African American	70	64.8%
Caucasian	36	33.3%
Hispanic	1	.9%
Other	1	.9%

***N*=108**

The academic program section asked participants to select whether they are pursuing an Associate's degree, Technical degree, or Bachelor's degree. Table 5 yields the distribution and percentages of participants by academic program.

Table 5

Distribution and Percentages of Participants by Academic Program

Academic Program	***n***	***%***
Associates	73	68.%
Technical	35	32%

***N*=108**

In the enrollment status section of the demographics questionnaire, participants were asked to select whether or not they were enrolled full-time or part-time. The responses by distribution and percentages are presented in Table 6

Table 6

Distribution and Percentages of Participants by Enrollment Status

Enrollment status	***n***	***%***
Full-time	79	73.1%
Part-time	29	26.9%

***N*=108**

The last section of the demographics questionnaire asked participants to select the highest level of education that either parent has received. Participants who selected among the following choices: some high school, high school diploma, technical certification, or two years college, were considered fist-generation college students. Participants who selected Bachelor's or Graduate degree were considered second-generation. Table 7 displays the distribution and percentages of participants by parent's level of education.

Table 7

Distribution and Percentages of Participants by Parent's Level of Education

Parent's Level of Education	***n***	***%***
First Generation	95	88.0
Second Generation	13	12.0

***N*=108**

Results

The survey instrument consisted of 21 questions divided by three sections. Each section comprised seven questions and related to one of the three examined variables: institutional effectiveness, possible career selves, and motivation to persist. The mean and standard deviation scores for each section are presented in Table 8. Correlation coefficients and partial correlation coefficients were computed among the three variables. Using the Holmes Sequential Bonferroni approach to control for Type I error across the three correlations, a p-value of less than .01 (.05/3=.01) was required for significance on the correlation coefficients and a p-value of less than .05 on the partial correlation coefficients. The results of the bivariate correlational analyses are presented in Table 9 and the results of the partial correlational analyses are presented in Table 10.

Table 8

Mean and Standard Deviation scores for Effectiveness, Possible Selves, and Persistence

Variable	*Mean*	*SD*
Effectiveness	4.00	.57
Persistence	4.59	.48
Career Possible Selves	4.50	.49

N=108

Table 9

Bivariate Correlation for Effectiveness, Possible Selves, and Persistence

	Effectiveness	***Persistence***	***Career Possible Selves***
Effectiveness	1.00	*.438	*.498
Persistence		1.00	*.767
Career Possible Selves			1.00

Note * Correlation is significant at the .01 (2-tail)

Table 10

Partial Correlation ***(p_r)*** *controlling for Career Possible Selves*

	Effectiveness (p_r)	***Persistence (p_r)***
Effectiveness	1.00	.14
Persistence		1.00

Research question 1

Research question 1 asked "What is the relationship if any, between institutional support services effectiveness and nontraditional adult students' motivation to persist?" The results of the bivariate correlation analyses indicated a moderate and statistically significant correlation between the institutional support effectiveness and nontraditional adult students' motivation to persist variables (r=.438, p<.01). Specifically, the analysis suggests that adult students' motivation to persist toward their goal is moderately related to their perception of the institution's support services as being effective.

Research Question 2

Research question 2 asked, "What is the relationship if any, between the career possible selves construct and institutional support services effectiveness?" The results of the bivariate correlation analyses indicated a moderate and statistically significant correlation (r=.498, p<.01) between the career possible selves construct and institutional support services effectiveness. The inference drawn from the analysis is adult students' ability to identify with a possible career self is moderately related to their perception about the effectiveness of the institution support services.

Research Question 3

Research question 3 asked, "What is the relationship if any, between the career possible selves construct and nontraditional adult students' motivation to persist? The results of the bivariate correlation analyses indicated a strong and statistically significant correlation (r=.767, p<.01) between the career possible selves construct and an adult student's motivation to persist. Thus, the results assert that adult students who are able to identify with a possible career self are highly motivated to persist toward their educational goal.

Research Question 4

Research question 4 asked, "What are the relationships, if any, between institutional support services effectiveness, career possible selves construct and nontraditional adult students' motivation to persist?" The results of the bivariate correlation analyses indicated that the correlations among all three variables are statistically significant (p<.01). However, when the career possible selves variable was controlled using partial correlation computation, the analyses showed a very low

correlation between institutional effectiveness and an adult student's motivation to persist which was not statistically significant (p_r =.14, p>.01).

ANOVA Results

Analysis of variance (ANOVA) statistic was used to measure whether the variance of the combined means from the three examined variables differed significantly within gender (male and female), academic program (Associate and Certification programs), enrollment status (part-time and full-time, and parent's level of education (first generation and second generation). ANOVA was tested at the .05 level.

Gender

A one-way analysis of variance was conducted to evaluate the relationship between gender (male or female) and the overall mean scores from the survey instrument. The independent variable, gender factor, included two levels: male and female. The dependent factor was the overall mean scores from the survey that measured participants' perception of institutional effectiveness, career intent, and their motivation to persist. The ANOVA results for gender, was significant, $F(1,106) = 5.30$, p=.02. The strength of the relationship between gender and overall mean scores, as assessed by η^2, was moderate accounting for 5% of the variance of the dependent variable. Means and standard deviations are reported in Table 11.

Table 11

Mean and Standard Deviation for Gender

Gender	***M***	***SD***	***n***
Male	4.26	.43	45
Female	4.45	.41	63

Academic Program

A one-way analysis of variance was conducted to evaluate the relationship between academic program (Associates or Technical) and the overall mean scores from the survey instrument. The independent variable, academic factor, included two levels: Associates and Technical. The dependent factor was the overall mean scores from the survey that measured participants' perception of institutional effectiveness, career intent, and their motivation to persist. The ANOVA results for academic program, was not significant, $F(1,106) = 1.72$, $p = .19$. The strength of the relationship between academic program and overall mean scores, as assessed by η^2, was low accounting for 1% of the variance of the dependent variable. Means and standard deviations are reported in Table 12.

Table 12

Mean and Standard Deviation for Academic Program

Academic Program	***M***	***SD***	***n***
Associates	4.41	.44	73
Technical	4.29	.41	35

Enrollment Status

A one-way analysis of variance was conducted to evaluate the relationship between enrollment status (full-time and part-time) and the overall mean scores from the survey instrument. The independent variable, enrollment factor, included two levels: full-time and part-time. The dependent factor was the overall mean scores from the survey that measured participants' perception of institutional effectiveness, career intent, and their motivation to persist. The ANOVA results for enrollment status, was not significant, $F(1,106) = 1.36$, $p = .245$. The strength of the relationship between enrollment status and overall mean scores, as assessed by η^2, was low accounting for 1% of the variance of the dependent variable. Means and standard deviations are reported in Table 13.

Table 13

Mean and Standard Deviation for Enrollment Status

Enrollment Status	***M***	***SD***	***n***
Full-time	4.40	.44	79
Part-time	4.29	.38	29

Parent Level of Education

A one-way analysis of variance was conducted to evaluate the relationship between parent's level of education (first generation or second generation) and the overall mean scores from the survey instrument. The independent variable, the parent's education factor, included two levels: first generation and second generation. The dependent factor was the overall mean scores from the survey that measured

participants' perception of institutional effectiveness, career intent, and their motivation to persist. The ANOVA results for parent's education, were not significant, $F(1,106) = 1.31$, $p = .25$. The strength of the relationship between parent's education and overall mean scores, as assessed by η^2, was low accounting for 1% of the variance of the dependent variable. Means and standard deviations are reported in Table 14.

Table 14

Mean and Standard Deviation for Parent's Level of Education

Parent's Education	***M***	***SD***	***n***
First Generation	4.39	.42	95
Second Generation	4.24	.44	13

Summary

The purpose of this research study was to examine the career possible selves construct as a mediating variable between institutional support services effectiveness and an adult student's motivation to persist. Chapter IV presented the results of the study as they related to the research questions and demographics information. Partial correlations and ANOVA analyses were used to extract the findings for this study. Accordingly, the results of the bivariate correlation showed a statistically significant relationship among all three variables. However, the partial correlation analysis indicated that there was no statistically significant relationship between institutional support services effectiveness and an adult student's motivation to persist when the career possible selves variable was controlled. Hence, the implication from the results suggests that the career possible selves variable does mediate between institutional effectiveness and an adult student's motivation to persist.

ANOVA analysis measured whether or not there were differences among group factors as they related to the overall score from the survey. The results from the ANOVA on gender showed that there was a statistically significant difference between males and females. The ANOVA analyses from the group factors academic program, enrollment status, and parent's level of education did not show a statistically significant difference.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Conclusion

The purpose of this research study was to examine the career possible selves construct as a mediating variable between institutional support services effectiveness and an adult student's motivation to persist at one community college in the southeastern United States. A researcher developed survey instrument was used to measure adult students' perception about the services available at their institution, their career intentions, and their motivation to persist. A demographics questionnaire was used to gather information on participants' age, race, gender, academic program, enrollment status, and parents' highest level of education. A sample population of 108 (N=108) adult students participated in study.

Partial correlation (p_r) analysis was used to examine the relationships among career possible selves, institutional support services effectiveness, and an adult student's motivation to persist. The results of the bivariate correlation showed a statistically significant relationship among all three variables. However, the partial correlation analysis indicated that there was no statistically significant relationship between institutional support services effectiveness and an adult student's motivation to persist when the career possible selves variable was controlled.

ANOVA analysis was conducted to measure whether or not there were statistically significant differences among four demographics factors as they related to

the overall score from the survey. The results from the ANOVA on gender showed that there was a statistically significant difference between males and females. The ANOVA analyses from the group factors academic program, enrollment status, and parent's level of education did not show a statistically significant difference.

Accordingly, the results from the research showed that the relationships among the career possible selves construct, institutional support services effectiveness, and an adult student's motivation to persist are statistically significant when all three variables are present. However when the career possible selves construct was controlled, the institutional support services effectiveness and an adult's motivation to persist variables did not show a statistically significant relationship. Additionally among the within group factors, gender was the only factor indicated a statistically significant difference in the overall survey score.

Implications

The purpose of this study was to examine the career possible selves construct as a mediating variable between institutional support services effectiveness and an adult student's motivation to persist. The results of this study showed that the institutional support services and motivation to persist variables did not have a statistically significant relationship when the career possible selves was partialed out or controlled as the mediating variable. Thus, the inference that can be drawn from the results is career knowledge and identifying with an ideal career self are essential links between the institutional support and adult students' persistence.

Bean and Metzner's (1985) model of nontraditional student attrition suggests that the academic variables, major certainty and career planning, have a direct effect on

adult students' psychological outcomes such as commitment to an educational goal and positive feelings towards degree utility. Major certainty is based on a student's long-term career plan. In most cases, students' majors are declared with the assistance of institutional support services (Jacobs & Dougherty, 2006). The results of this study suggests that in spite of assistance through academic advising, students who do not have an association with an ideal career self will not be as motivated to persist towards their educational goals.

Another implication from the results of this study is in reference to the characteristics of the adult learner as they relate to the path of persistence. The career possible selves construct as an influential factor in the path to persistence supports Knowles (1990) assertion about the adult learner as being problem-centered and intrinsically motivated. In addition to the career possible selves construct as being connected to adult learners' characteristics it also substantiates the claim that most nontraditional-age students are goal oriented and diligence is tied to non-cognitive factors (Allen, 1999; Bean, 2005; Bean & Metzner,1985; Chartrand, 1992; Donaldson, 1999; Eppler & Harju, 1997; Eschenmann & Olinger, 1992; Graham & Donaldson, 1996, 1997, 1999; Hensley & Kinser, 2001; Johnson, 1991; Kasworm, 2003, 2008; Kim, 2002; McGivney, 2004; 2004; Sandler, 2000a, 2001; Simmons, 1995; Taniguchi & Kaufman, 2005; Wonacott, 2001).

Finally, the results of the study imply that identifying with a future career self for the adult student has a direct impact on motivation and persistence towards completing an educational goal. Markus and Nurius (1986) posited that the possible selves construct heightens an individual's drive to succeed. According to the tenets of

the construct, it encourages individuals to take appropriate actions through self-regulation to accomplish their desired selves and avoid their undesired selves. Additionally, students who are connected to fulfilling their ideal selves are most likely to choose a learning orientation that promotes a stronger sense of self-efficacy and perseverance in the face of challenges (Elliot & Dweck, 1988; Eppler, Carsen-Plentl & Harju, 2000; Grant & Dweck, 2003).

Recommendations

Career development for the adult student is vital in the educational process. In the path to attrition, Bean and Metzner (1985) theorized that psychological factors such as usefulness of the degree, commitment to goals, and satisfaction with the institutional climate are among the variables that have direct effects on nontraditional students' action to leave. The nontraditional aged students, according to the results of this study, are most susceptible to attrition if there is no connection to a future career self that the student can identify. Hence, the following are recommendations based on the results of the study:

1. Future studies could measure the extent that first generation students and second generation differ in being able to identify with career possible selves that require advanced/professional degrees.
2. Future studies could measure the extent that men and women differ in being able to identify with career possible selves that require advanced/professional degrees.

3. Future studies could measure whether or not there is a relationship between a specific career possible self and achievement orientation (learning or performance oriented).
4. Institutional support services can develop a first-year experience program that emphasizes adult career planning.
5. Similar to the learning communities that are effective with traditional age students, career and mentoring communities can be used with nontraditional age students that could increase adult student involvement and promote career exploration for adult students who have limited exposure to professional careers.

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APPENDICES

APPENDIX A

Adult Students Motivation to Persist Survey
DEMOGRAPHIC QUESTIONNAIRE

The purpose of this questionnaire is to compare students' background traits and their relationship to persistence.

Please provide the following information:

A. Age_____

B. Gender (please check one):

_____Male
_____Female

C. Race (please check one):

_____African American _____ Caucasian
_____Hispanic/Latino _____ Asian
_____Native American _____ Other (please specify) _____

D. Academic Program (please check one):

_____Associate Degree
_____Technical Certificate
_____Bachelor's Degree

E. Enrollment Status (please check one):

_____ Full-time
_____ Part-time

F. What is the Highest Level of Education that <u>either</u> parent has (please check one):

_____Some High School _____ Technical Certification _____Bachelor's Degree
_____High School Diploma _____ Two years College _____Graduate Degree

PLEASE TURN OVER

Adult Students Motivation to Persist Survey

The purpose of this study is to examine the role of personal career intentions as a link between the effectiveness of institutional support services, e.g. Success Center, and an adult student's motivation to complete their degree. By participating in this study, you will assist college administrators with determining whether or not the support services offered at their institution support students in their efforts to complete their education. Additionally, the study will highlight the role of career development as an essential part of the educational process for the adult student.

General Directions: This survey will take approximately 10 minutes to complete. Using a scale of Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree, please respond to each item by marking an **X** in the box that indicates the extent that you agree or disagree with the statement.

I. Institutional Support Services, e.g. Success Center: How do you perceive your academic support services?	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
1. The academic support center staff members seem to understand my career development needs.					
2. There is assistance for students who are unsure about their career goals.					
3. The location and hours of the academic support center are convenient to my work schedule.					
4. The staff members at the academic support center seem to understand adult students' needs.					
5. The academic support center provides non-academic support e.g. financial aid assistance, personal counseling, social clubs, etc.					
6. The academic support center has helped me to overcome some of my learning barriers.					
7. The academic support center provides opportunities for students to attend student development workshops.					
II. Career Intentions: What do you hope for in the future regarding your career?	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
8. I hope to have a career that requires a college education.					
9. I hope to have a career that has a high earning potential.					
10. I hope to have a career that is an expression of my values, interest, and skills.					
11. I hope to have a career that reflects my own personal choice.					
12. I hope to have a career that affords career advancement based on my education.					
13. I hope to have a career that requires a professional license or certification.					
14. I hope to have a career that requires a technical certification.					
III. Persistence: What motivates you to complete your degree?	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
15. I have definite plans for my degree upon completion.					
16. I believe education is a key to a better future.					
17. My family and friends support my choice to pursue a college degree.					
18. The time it takes to complete my degree is worth it to reach my career goals.					
19. Going to college brings me personal fulfillment.					
20. It is important to me that I am a role model to my friends and family.					
21. I have knowledge of the types of careers that are related to the degree I wish to obtain.					

APPENDIX B

AUBURN

UNIVERSITY

Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Telephone: 334-844-5966
Fax: 334-844-4391
hsubjec@auburn.edu

May 29, 2009

MEMORANDUM TO: Ronda Westry
Adult Education

PROTOCOL TITLE: "An Examination of the Career Possible Selves Construct as a Mediating Variable between Institutional Support Services Effectiveness and Adult Students Motivation to Persist"

IRB FILE NO.: 09-125 EX 0905

APPROVAL DATE: May 18, 2009
EXPIRATION DATE: May 17, 2010

The referenced protocol was approved "Exempt" on May 18, 2009 under 45 CFR 46.101 (b) (2):

> "Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
> (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
> (ii) any disclosure of the human subjects' response outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation."

You should retain this letter in your files, along with a copy of the revised protocol and other pertinent information concerning your study. If you should anticipate a change in any of the procedures authorized in this protocol, you must request and receive IRB approval prior to implementation of any revision. Please reference the above IRB file number in any correspondence regarding this project.

If you will be unable to file a Final Report on your project before May 18, 2010, you must submit a request for an extension of approval to the IRB no later than May 2, 2010. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to May 18, 2010 you must suspend the project immediately and contact the Office of Human Subjects Research for assistance.

A Final Report will be required to close your IRB project file. Please note that the approved, stamped version of your information letter should be provided to participants during the consent process.

If you have any questions concerning this Board action, please contact the Office of Human Subjects Research at 844-5966.

Sincerely,

Kathy Jo Ellison

Kathy Jo Ellison, RN, DSN, CIP
Chair of the Institutional Review Board
for the Use of Human Subjects in Research

cc: Dr. Jose Llanes
Dr. James Witte

APPENDIX C

Institutional Review Board

Adams Administration
LL Rm 11 A
Troy, AL 36082

334-808-6264 Office
334-670-3912 Fax

http://www.troy.edu/institutionalreview

TROY UNIVERSITY

March 17, 2009

Ms. Ronda Westry
Student Support Services
Montgomery

Dear Ms. Westry:

The Troy University Institutional Review Board has finished reviewing your application for Examination of the Possible Career Selves Construct as the Mediating Variable of Institutional Support Services Effectiveness and Adult Students Motivation to Persist. PILOT STUDY (protocol #2008 –Westry, R.) and has approved your protocol, as is.
This approval is good from March 17, 2009 until March 17, 2010. If you wish to continue your research after this date, you must complete and submit a Continuation Application.

You must use the IRB-approved and stamped Informed Consent form that accompanies this letter. If you are posting the Informed Consent information on-line you must use the exact wordage from the approved form.

You are also responsible for immediately informing the Institutional Review Board of any changes to your protocol, or of any previously unforeseen risks to the research participants.

Please let me know if you have any questions.

Sincerely,

Janet R. McNellis, Ph.D, Acting Chair

APPENDIX D

H. Councill
Trenholm
STATE TECHNICAL
COLLEGE

Samuel Munnerlyn
President

1225 Air Base Boulevard
Montgomery, Alabama 36108
Phone: 334.420.4200
Fax: 334.420.4206
www.trenholmtech.cc.al.us

January 17, 2009

Auburn University, Institutional Review Board
C/O Office of Human Subjects
307-D Samford Hall
Auburn University, AL 36849
ATTN: Ms. Niki L. Johnson, JD, MBA

Dear Institutional Review Board:

Ms. Ronda Westry, Principal Investigator, has my permission to conduct research with H. Councill Trenholm State Technical College students for her dissertation, *An Examination of the Possible Career Selves Construct as a Mediating Variable of Institutional Support Service Effectiveness and Adult Students' Motivation to Persist.*

Trenholm State Technical College contact person with whom Ms. Westry will work is Dr. Mimi Johnson, Director of Institutional Research and Advancement. She may be contacted at (334) 420-4243 or mjohnson@trenholmtech.cc.al.us. The coordination between Dr. Johnson and Ms. Westry is hereby approved so that the survey instrument may be used with Trenholm State Technical College students.

Ms. Westry has assured me that the survey process will follow procedures of anonymity and confidentiality to protect Trenholm State Technical College students and that the study conducted will in no way cause harm to the students engaged in the research.

Sincerely,

Sam Munnerlyn, President
H. Councill Trenholm State Technical College

cc: Ronda R. Westry, Coordinator
Student Support Services
TROY University Montgomery Campus
Bartlett Hall, Suite 304
P.O. Drawer 4419
Montgomery, AL 36103

APPENDIX E

The Auburn University
Institutional Review Board
has approved this document for use
from 5/18/09 to 5/17/10
Protocol # 09-125 EX 0905

AUBURN UNIVERSITY

COLLEGE OF EDUCATION

EDUCATIONAL FOUNDATIONS, LEADERSHIP AND TECHNOLOGY

PARTICIPANT INFORMATION LETTER
For a Research Study Entitled:

An Examination of the Career Possible Selves Construct as a Mediating Variable of Institutional Support Services Effectiveness and an Adult Student Motivation to Persist

You are invited to participate in a research study to examine the relationships between campus support services effectiveness, career plans, and an adult student's motivation to persist. This study is being conducted by Ronda R. Westry under the supervision of Dr. James Witte, Associate Professor in the Auburn University Department of Adult Education. We hope that this examination of these three variables can lead to a better understanding of what most impact a student's motivation to persist towards completing their college education. We hope that this research can influence college policy makers and administrators to consider career development as necessary and a most important part of an adult student's educational process. You were selected as a possible participant because you are an undergraduate student at Troy University or Trenholm State Technical College and 19 years of age or older.

If you decide to participate, please complete the demographics sheet and survey attached to the copy of this form. The time it will take to complete this survey is 10 minutes. The risks to completing this survey are minimal and may include breach in confidentiality, coercion to participate, and/or psychological discomforts. The survey is anonymous and has no identifiable information that can link you directly to the results. No individual information would be shared with your professor or the university. No group data will be reported in group sizes less than ten. To minimize coercion to participate, if you feel pressured to participate or would like to withdraw from the study, you may do so at any time without judgment or penalty. If you feel uncertainty about your career or feel discomfort about your educational pursuits please contact the Career Services Center on your campus for assistance with your career planning.

Although there is no benefit to you for participation in this study, an awareness of how having a definite career goal along with the assistance of your campus's support services office, can increase your chances of completing and using your degree successfully. It is my hope that these findings will lead to increased attention to adult career development and higher rates of persistence and graduation. We cannot promise that you will receive any or all of the benefits described.

Page 1 of 2

4036 Haley Center, Auburn, AL 36849-5221; Telephone: 334-844-4460; Fax: 334-844-3072
www.auburn.edu

Any data collected from this study will be stored on a disk that will be password protected and kept in a lock file cabinet at my home. No one will be able to identify you from the findings written in my study.

If you have any questions about the study or your participation thereof, we invite you to ask them now. If you have questions later, please feel free to contact me at rwestry@troy.edu or Dr. James Witte at witteje@auburn.edu.

For more information regarding your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334) 844-5966 or email at hsubjec@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

	5/27/09		5/27/09
Investigator's Signature	Date	Supervising Professor's Signature	Date
Ronda R. Westry		James E. Witte, PhD	
Investigator's Printed Name		Supervising Professor's Printed Name	

Page 2 of 2

The Auburn University
Institutional Review Board
has approved this document for use
from 5/15/09 to 5/17/10.
Protocol # 09-125 EX 0905