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Pre-College Career Guidance and Persistence at a Small Private University in Tennessee

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**PRE-COLLEGE CAREER GUIDANCE AND PERSISTENCE AT A
SMALL PRIVATE UNIVERSITY IN TENNESSEE**

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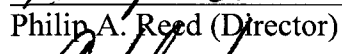
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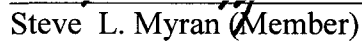
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ABSTRACT

PRE-COLLEGE CAREER GUIDANCE AND PERSISTENCE AT A SMALL PRIVATE UNIVERSITY IN TENNESSEE

Raymond D. Carson

Old Dominion University, 2011

Director: Dr. Philip A. Reed

This mixed methods study was designed to determine the type and quality of pre-college career guidance experiences of college freshmen and the impact of those experiences on student performance and retention. This study was limited to first time freshmen at a small private university in Tennessee. The population was 46% male and 54% female from 6 different ethnic groups. Students came from 5 different secondary school settings including Seventh-day Adventist (SDA) academies, home school environments, public high schools, other Christian schools, and individuals who had obtained a general education diploma (GED).

Qualitative data were collected through a phone survey to academies, student interviews, secondary classroom observations, and document reviews. These served to determine the extent of career guidance activities that were provided for the students prior to enrollment in college. Quantitative data were collected and analyzed from an on-line survey that yielded 491 responses or 78% of the freshman class.

Interviewees who experienced limited pre-college career guidance were at a disadvantage in their ability to make meaningful choices when selecting a major. These

students based their career decisions on factors that were unrelated to their own skills, aptitudes, or the job market. They relied on the opinions of friends or family as the major influence for their choices. All of the interviewees who had received minimal pre-college career guidance expressed a desire to know more about their personal traits and appropriate career options. In contrast, those who were exposed to substantial amounts of career guidance described their experience as enlightening and beneficial. One-on-one career counseling and aptitude assessments were singled out as particularly valuable by those of this group.

Significant relationships were found between the assessments variable as well as work experience variable with grade point average, but no significant relationships were found between any of the career guidance variables with re-enrollment for the next school year.

Recommendations included further study of the impact of career guidance on a long term basis and identification of new career guidance variables. The development and implementation of a comprehensive career guidance model for SDA academies was also suggested.

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I dedicate this work to teachers, counselors, and others who aspire to help students find their unique calling.

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I want to express my appreciation to the following people who helped me grow and overcome. Doris Herron, my mother, who instilled the value of work at an early age and who always had confidence in my abilities; to my wonderful wife Mabel who always provided encouragement and support, and to my two daughters Heather and Melissa for their unfailing love.

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Pre-College Career Guidance on Student Persistence and Performance in a Small Private University

Retaining students in college has always been a concern, but in the early 1990s it was recognized as a significant problem in the United States. It was estimated that 40% of college students would leave without getting a degree (Porter, 1990) and 75% of those would leave within the first two years (Tinto, 1987). More recent studies show the problem is not improving, but is getting worse with approximately 50% of college freshmen not finishing college (ACT, 2003; Cassel, 2003; Garza & Landeck, 2004; NCES, 2007; Raley, 2007).

This is a serious issue for both individual students and institutions. Those who have not earned a college diploma earn less, have a lower quality of life and generally are less inclined to participate in a host of civic activities (Watts, 2001). It is a problem for institutions because they are operating with tight budget constraints and the loss of students means a loss of funding (Jamelske, 2009). It is also more expensive to continually recruit new students than to retain those already enrolled.

The early research efforts to understand the problem of retention produced mixed results with little understanding of the real issues. The initial research efforts on retention, operated under the assumption that cognitive factors such as grade point averages and test scores were key issues to the problem. Later studies revealed that non-cognitive factors were much more relevant to the problem revealing the role of self-concept, goals, and integration into the social and academic system of the school (Garza & Landeck, 2004; Pickering, Calliotte, & McAuliffe 1992).

Although there has been much concern for the retention issue, very little attention has been given to the value of career goals as a motivating factor for students to remain in school (Harrington & Harrington, 2006; Chope, 2008; Patton & McIlveen, 2009). Therefore, the purpose of this study is to determine the type and quality of career guidance experiences that the incoming freshmen are getting from their secondary education, and if any of those experiences are having an effect on retention and performance.

The Problem

The small private university, which is the site of this study, experiences the same difficulty in retaining students as other colleges and universities in the United States, losing approximately 30% of the freshmen class each year (Southern Adventist University, 2008). A majority of the students come from denominational academies where a variety of career guidance experiences are provided. Many other students come from a home-school environment where nothing is known about their career guidance experiences. From interviews with guidance counselors at some of the academies, it was evident that some schools provide in-depth career guidance and others do not. The problem of this study was to determine the impact of various career guidance experiences on student retention and performance at a small private university.

Research Questions

Research Questions

Four research questions guided this study.

1. *What pre-college career guidance experiences were provided to the traditional college freshmen?* This question explores the various career guidance experiences the

students had before coming to the university. This question was investigated through several venues. An on-line questionnaire was given to students asking what pre-college career guidance experiences they had. Students were also interviewed about their career guidance experiences. All of the academies of the Southern Union were surveyed by telephone regarding the career guidance services they provide. Lastly, analysis of the survey and interview information was reviewed to determine exemplary practices by the academies and on-site observations and document reviews of guidance materials and activities were made to determine the extent of these practices.

2. *What types of pre-college career guidance experiences do traditional college freshmen report?* Regardless of what the teachers and counselors thought they were providing, the important issue is the students' experience. Often times there is a disparity between what is perceived by the student and what educators intended to provide. This was addressed through student interviews.

3. *To what extent do students perceive these pre-college career guidance experiences as beneficial?* Even if the experiences of students are consistent with what educators intend to provide, the crucial issue is whether or not the students perceive it as helpful. This question was answered through student interviews.

4. *What is the impact of pre-college career guidance experiences on student persistence and performance?* This question explores the relationship between the pre-college career guidance activities and the student retention data. To answer this question the researcher developed survey questions for students on career guidance experiences which were compared to retention and performance data.

The first three questions were addressed through a narrative study using interview, observations, and document reviews. The last question was addressed through a quantitative analysis of survey results with enrollment and academic performance records.

Background and Significance

Some of the early research to understand the problem of retention began in the late 1970s after Vincent Tinto developed an explanatory, predictive model of the dropout process (Mannan, 2007). In his more recent theoretical synthesis of attrition, Tinto (1988) explains that an understanding of the drop out phenomenon should also consider motivational attributes of individuals. He mentions specifically the positive effect on retention from helping students identify career and educational goals. Although there are other theorists in the area of retention, a meta-analysis by Robbins, Lauver, Davis, Langley, & Carlstorm (2004) of 109 studies on educational persistence and motivational theory models, explained that, “Two dominant theories of college persistence have emerged, the theories of Tinto (1975, 1993) and Bean (1980, 1985)” (p. 263). Bean’s (1980, 1983) model focuses more on behavioral indicators whereas Tinto focuses on perceptual measures.

Recent research has focused on cognitive and non-cognitive factors of persistence, but only a very few studies address both issues of career guidance and persistence. A study by Maguire (2004) explores outcomes of career guidance and explained that career guidance can enhance the likelihood of individuals to achieve, but he also states that there is a lacking of robust data that shows a causal link between career guidance and increased rates of retention.

Over the past 25 years, there has been a scarcity of research on retention for small private universities. The retention research that has been done focuses on a variety of issues including school ranking in *U.S. News and World Report*, GPA, and other cognitive factors relating to predicting student drop-out, effectiveness of assessment instruments to identify social and academic integration in college, and identification of students for counseling services (Curtis, 2005; Chowdhury, 2006; Brandt, 199; & Bray, 1985). None of these consider career guidance as a factor of retention although the study by Brandt (1991) indicates that *Institutional and Goal Commitment* to be significant factors in retention.

On the overall topic of career guidance and retention, only two recent studies were found that closely relate to the present study. The research by Hull-Banks et al. (2005), which studied the relationship between career goals and retention related factors. The researchers found that “Those first-semester freshmen without an identified career goal made less positive persistence decisions than did those with a defined job-related career goal” (p. 24). They also stated, “It is likely that without defined goals, students lack the motivation to make and follow through with persistence decisions” (p. 24). Although the study showed a clear positive relationship between career goals and retention, it did not study the impact of career guidance activities with retention.

Another recent retention study was a dissertation by Metz (2005) which involved 902 freshmen college students who were enrolled in a first-year seminar course. This research was designed to determine the value of career related variables on traditional college freshmen student performance and retention. The researcher reported that career-related variables did not account for significant variance in college student retention.

This finding may have been the result of a poor choice of the student sample. All the participants in the Metz (2005) project were students in the first-year seminar UNIV 101 course. Of the students in this course, 66% were required to be in the class because they were under a “special admissions contract”; the other 34% were enrolled on a voluntary basis. This is a very specialized sample of the freshmen population comprised of those who were required, probably on academic probation, and those who volunteered because they recognized they had no career direction. Metz suggested that more attention should be given to the use of career-related variables and vocational theory to explain persistence and performance.

Considering the lack of data linking career guidance and retention and that recent studies found on the subject did not adequately address the focus of the problem of this study, it is reasonable to assume that this study will make a worthy contribution to the research. This project identifies the type and quality of career guidance SDA academies are currently providing and the extent that those activities are making an impact on persistence and performance. There is also an absence of research on this topic for small private universities.

Limitations

This study is limited by the sample of the population of traditional aged college freshmen at a small private university. The fact that students attending the Seventh Day Adventist (SDA) educational system are a unique group with unique values and life goals from the mainstream population somewhat limits the applications of the findings although the outcome of the research may serve the SDA educational system and provide inferences to that population. The study is also limited in that it does not attempt to

determine the difference between students who dropped out of school or chose to enroll elsewhere. No considerations were made for ethnicity or special needs students.

Assumptions

The most significant assumption of this project is that the students attending the institution of this study are representative of typical SDA students in the United States. It is assumed that identification of a career goal constitutes a form of intrinsic motivation for students to persist and perform well. It is assumed that the 10 item questionnaire as designed by the researcher will be a reliable and valid measure of career guidance activity.

Procedure

The small private university chosen for this study has an enrollment of 2,900 and is a religious coeducational liberal arts college in southern Tennessee. This research project was a *mixed methods descriptive study using quantitative and qualitative methods*. The quantitative component compared variables of pre-college career guidance experiences with student data on retention and performance. Qualitative research was done through interviews, observations, and document reviews.

Narrative research is suitable for this study because it provides an appropriate way to characterize the human experience (Creswell, 2007). Interviews took place with traditional college freshmen at the site of this study to understand their pre-college experiences. Interviews were also held with academy personnel who were implementing exemplary career guidance practices to determine type and quality of the experiences provided. Interviews through open-ended questions provide in-depth responses about personal experiences, perceptions, feelings, and knowledge (Patton, 2002). Observing

class proceedings and other related career guidance activities at the academies was important to determine the extent and quality of their guidance activities. Observing enhances understanding and is a means of triangulating the data for validity (Patton, 2002). Document reviews were another avenue to understand the extent of exemplary practices for career guidance activities. Qualitative data through the use of documents is helpful in identifying issues (Patton, 2002). These materials provided a background for the content of coursework and guidance activities to help determine the quality and depth of the exemplary practices at the academies. Exemplary practices were identified through analysis of student survey and interview responses that indicated high levels of career guidance for specific academies.

A spiral process of qualitative data analysis (Creswell, 2007) was used to interpret and make sense of the data from interviews, observations, and document reviews to answer the first three research questions: (1) *What pre-college career guidance experiences were provided to the traditional college freshmen?*; (2) *What types of pre-college career guidance experiences do traditional college freshmen report?*; and (3) *To what extent do students perceive these pre-college career guidance experiences as beneficial?*

Correlational analysis through Pearson product-moment coefficient (r), an independent-samples t test, regression analysis, and Analysis of Variance (ANOVA) were conducted to evaluate question four: *What is the impact of pre-college career guidance experiences on student persistence and performance?* These are appropriate analysis approaches because the Pearson product-moment coefficient (r) can be used to assess the degree that quantitative variables are linearly related in a sample. Independent-

samples *t* tests evaluate the difference between the means of two independent groups (Green, & Salkind, 2008). The independent groups in this instance were those who have had career guidance activities compared to those who had not. Regression analysis provides a method for pointing a finger in the direction of causation (Sprinthall, 2007). This helped identify the predictive nature of career guidance. The ANOVA was used because it helped reveal impact of more than two variables on the dependent variable (Sprinthall, 2007).

The Statistical Package for Social Sciences software (SPSS), version 18.0 was utilized to analyze the data. An inductive approach to thematic analysis was used to identify quantitative patterns and develop appropriate codes for interviews, observations, and document reviews.

Definition of Terms

The following definitions will be used throughout this study. The National Vocational Guidance Association assembled a panel of career guidance experts to define career guidance terms which provided the definition of career guidance.

1. Career Guidance. Those activities and programs that assist individuals to assimilate and integrate knowledge, experience, and appreciations related to:
 - a. Self-understanding, which includes a person's relationship to his/her own characteristics and perceptions, and his/her relationship to others and the environment.
 - b. Understanding of the work of society and those factors that affect its constant change, including worker attitudes and discipline.
 - c. Awareness of the part leisure time may play in a person's life.

- d. Understanding of the necessity for and the multitude of factors to be considered in career planning.
 - e. Understanding of the information and skills necessary to achieve self-fulfillment in work and leisure.
 - f. Learning and applying the career decision-making process (Sears, 1982, p. 139).
2. Pre-college career guidance experiences: Experiences provided in the secondary education setting helpful to students in formulating their own ideas about which careers are appropriate for them (Hughes and Karp, 2004).
 3. Persistence: The decision to remain enrolled in higher education.
 4. Traditional college freshmen: First time college students ages 17 to 19 years old.
 5. MAP-Works: On-line assessment product used to identify and coordinate intervention for at-risk students (MAP-Works, 2010).
 6. Classroom observations: In-person observations of classroom activities to assess type and quality of pre-college career guidance experiences provided to students.
 7. Document reviews: Review of course materials, syllabi, handouts, web sites, and other documentation related to the delivery of pre-college career guidance activities (Patton, 2002).
 8. Interviews: One-on-one interviews between the principal investigator and college freshmen regarding their attitudes and perceptions about their pre-college career guidance experiences.

9. Southern Union: This is one of nine unions (including Canada) which comprise the North American Division of the World Church of Seventh-day Adventists. The union is made up of 244,000 church members with 16 academies and 3 universities from eight states (Southern Union Conference 2011).

Summary and Overview

This research project arose in response to the recognized problem of continued high attrition rates of college freshmen at the site of this study and other schools in the United States. This negatively impacts the future lifestyle of students in numerous ways including earning power, civic participation, and a host of other quality of life experiences. It creates extra work for institutions because it drains valuable resources to continually recruit new students as opposed to serving those they have. This project is premised on the idea that career guidance experiences help students be self directed and motivated which in turn improves their performance and retention in higher education. Therefore, the goal of this study is to examine the relationship between pre-college career guidance experiences with retention and performance of traditional aged freshmen. The sample of students was from a small private university which may not correlate directly to the rest of the population of traditional aged freshmen in the United States.

Chapter II provides a review of the literature to document the legitimacy of the retention problem in colleges and universities all across North America, various theories on the retention issue and research efforts to understand factors of retention were discussed and finally, the role of career choice as a motivator in retention was explored.

Chapter III explains the methods and procedures used for collection and analysis of the data. Quantitative data were gathered, and analyzed using triangulation of the data

from observations, interviews, and document reviews. Quantitative data was analyzed using correlations through Pearson product-moment coefficient (r) and an independent-samples t test. Chapter IV reported the findings which consisted of a narrative explaining the results of the statistical analysis along with graphs and charts for a clear representation of the results. Chapter V provides an overview of the study along with conclusions based on the results of the study and recommendations for further research.

CHAPTER II

REVIEW OF THE LITERATURE

The phenomenon of students dropping out of higher education has been recognized as a problem with serious consequences for both students and institutions of learning. Research shows that students who do not complete their higher education suffer a diminished quality of life in many areas beyond mere finances (Watts, 2001). Some of the problems this causes for institutions of higher education are reduced numbers and costs to recruit new students (Jamelske, 2009). This is a serious issue for colleges and universities causing them to expend much time and resources to find solutions.

This review of the literature will focus on the hardships arising from the retention problem, the related research theory, and efforts to understand this phenomenon. The first section of this chapter will review the literature on the impact of the retention problem has for individuals, institutions, and society. The second section will provide a background on predominant theories of retention and the most significant factors that impact retention outcomes. The third section will discuss career development theory and its influence on motivation, self efficacy, motivation, and career choices. The final section will reveal the gaps in the literature concerning the outcomes between career guidance with retention and performance for higher education in general and for small private schools, specifically.

The Drop-out Problem

Problems for Students and Society

Individuals and educational institutions are not the only ones to suffer from students dropping out of higher education. This phenomenon has implications for society as a

whole. In a report prepared by the Institute for Higher Education Policy (Merisotis 2005), six measurable indicators of economic and social benefits to the public from higher education were studied in all 50 states. Arkansas showed a 147 percent increase in annual income for those holding a bachelor's degree (\$53,646) over those with a high school diploma (\$21,719). All states showed an increase in income with the lowest being increases of 50 percent. Unemployment rates showed impressive differences between those with a high school diploma and those with a bachelors degree ranging from 10 percent to 24 percent difference. Twenty seven states showed a decrease of 100 percent of those with a bachelor's degree relying on public assistance compared to those with a high school diploma. Only three states did not show a significant difference in public assistance for those with a bachelor's degree. In Alabama the proportion of bachelor's degree recipients who indicated they were in "excellent, very good, or good health" was 23 percentage points higher than for those with high school diplomas. All states showed increased health for those with a bachelor's degree with the lowest increases for health at roughly 5 to 9 percent. Differences in volunteerism ranged from 199 percent increase to 35 percent higher for those with a bachelor's degree. The differences in national voter turnout were 36 percent higher for those with a bachelor's degree. Other recent research provides a similar picture with children of non-college graduates being less likely not to complete college and to live in poverty than children of college graduates (Carnevale & Desrochers, 2004; Choy, 2001; Kojaku & Nunez, 1998).

Problems for Institutions of Higher Education

Colleges and universities directed much attention on the issue of persistence for several decades to find successful interventions because it is much cheaper to retain students than to continually recruit new ones. The Noel-Levitz Group (2006) consults to colleges and universities on strategies for retention issues. They compiled student recruiting costs from one hundred and seventy one institutions and found that it costs approximately \$455 per student for a public institution and over \$2,000 for a private institution. The retention issue also has an impact on institution marketability. Higher retention rates are often viewed as indicators of college effectiveness as reflected on college guides and other publicity media (Astin, 1993, 1997; Wyman, 1997).

Retention strategies include extended orientation programs, supplemental instruction, peer mentoring, and First-Year Experience Seminar along with expenditures on consulting services like those of Noel Levitz Group. Other efforts focus on trying to understand issues of the student experience to keep them engaged and in school. Many use the National Survey of Student Engagement (NSSE) to discover what their students are doing in school, what the institution requires of them, how they perceive the institution, and how they estimate their growth while there. Seven hundred and seventy two institutions used the NSSE nationwide in 2008 (Kuh, D.G., 2009). Walters, E. (2003) discusses the importance of using tools like NSSE to focus on issues that will encourage students to remain at the institution. These efforts are labor intensive and expensive for institutions.

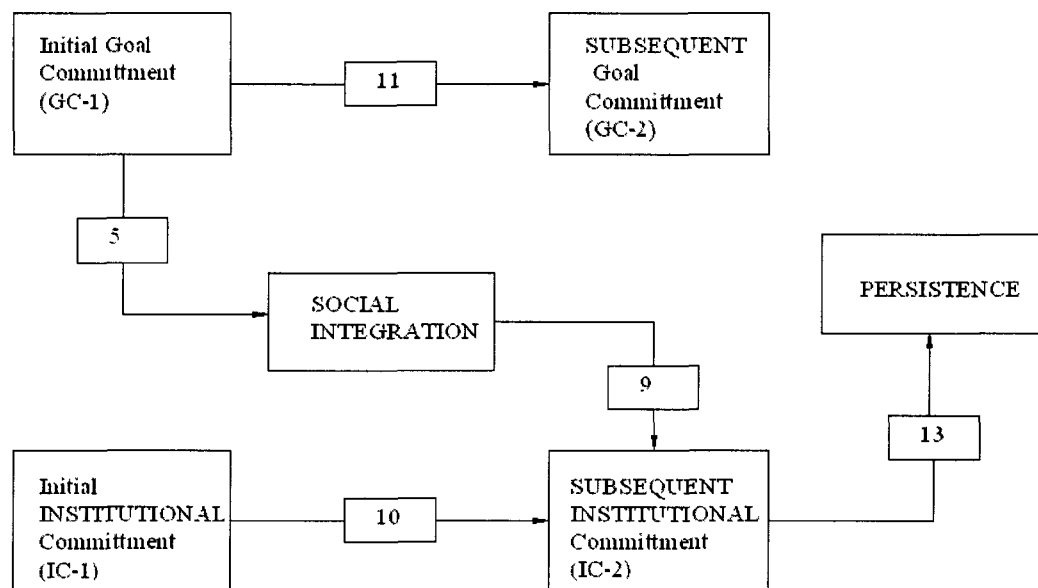
Retention Theory

In a meta-analysis of research of 109 studies on educational persistence and motivational theory models, Robbins et al. (2004) reveal that “Two dominant theories of college persistence have emerged, the theories of Tinto (1975, 1993) and Bean (1980, 1985)” (p. 263). In 1975 Tinto developed an explanatory, predictive model of the dropout process that explains dropout behavior primarily on the ability of a student to integrate into the academic and social systems of the college. This theory was later supported by other studies pointing to the importance of the social, emotional, and academic experience (Chiu, 1990; Pickering, Calliotte, & McAuliffe, 1992). In his more recent theoretical synthesis of attrition, Tinto (1988) explains that an understanding of the drop out phenomenon should also consider motivational attributes of individuals. He mentions specifically the positive effect on retention from helping students identify career and educational goals.

Bean’s (1980, 1983) model focuses more on behavioral indicators, particularly interaction with faculty and time spent away from campus which are seen as proxies for student interaction and lack of involvement respectively. Although Bean and Tinto perceived the same factors of retention, they differed in their outlook using behavioral verses perceptual measures of the student involvement construct (Robbins et al., 2004). They both agree that student involvement leads to greater integration in the social and academic systems of the college which promotes institutional commitment (Baxton et al., 2004).

Braxton, Sullivan, and Johnson (1997) assessed the thirteen testable propositions of Tinto’s model by examining the magnitude of support for each proposition as revealed

in empirical research. The researchers rated each proposition as strong, moderate or weak depending on the percentage of tests that revealed statistically significant information for that proposition. For residential universities similar to the institution of this study, strong empirical support was obtained for five of the thirteen of Tinto's propositions (see Figure 1).



Note: Arrows indicate strongly supported propositions. The numbers correspond to the number of each individual proposition of the thirteen propositions listed in Tinto's Propositions..

Figure 1. Tinto's five most significant propositions (Braxton, Hirschy, & McClendon, 2004, p. 15).

Factors in Retention

The research on college retention is voluminous. Braxton (2000) traced research on the topic going back over 70 years. In their influential book *How College Affects Students*, Pascarella and Terenzini (1991) identified 3,000 research investigations that

deal with theories and models of student performance and retention over a 20 year period. The authors distinguish between verbal, quantitative, and subject matter competence of students, all of which are primarily classified as cognitive factors (Robbins et al., 2004). During the same time period, an interest in motivation theories within psychology took place evidenced by the use of goal theories and motivational dynamics in an effort to understand child development and educational psychology (Covington, 2000; Eccles & Wigfield, 2002). The educational research focused more on the cognitive factors and the psychological community tended to emphasize the non-cognitive.

Due to the overwhelming amount of research on the topic, this literature review will only focus on those factors that have shown sustained empirical attention. These can be divided into the two major groups just mentioned: (1) cognitive, which includes GPA, standardized test scores etc.; and (2) non-cognitive, including academic and social integration, social and family support, self-efficacy beliefs, and goals in addition to several others.

Cognitive Factors. The preliminary research on retention placed emphasis on academic performance for the purpose of predicting persistence problems in individual students. This produced numerous studies demonstrating that students with lower scores on pre-college ability tests (e.g. SAT scores) are less likely to persist than those with higher scores (Bayer, 1968; Pascarella, Terenzini, & Hibel, 1978; Velez, 1985). In addition, those students who were retained had higher pre-college GPAs than those who departed (Metzner, 1989). Although these academic factors are predictors of retention, by themselves they are not tremendously useful in planning efforts to improve

persistence. Johnson's study (1996) found that dropout students from arts and education had higher grade point averages than science students who persisted in college. The fact that higher pre-college GPAs and SAT scores correlate to higher retention rates does not provide help for workable interventions. Cubeta, Travers, & Scheckley (2001) called for an exploration of alternate predictors of performance and persistence including self-efficacy, attitudes towards college, and social measures.

Non-Cognitive Factors. Studies on psychological factors of retention have consistently shown the interaction between an individual's emotional and psychological needs and retention. Pascarella and Terenzini (1979) concluded that social isolation was the most important factor of student drop out, above and beyond the effects of academic performance. Pritchard & Wilson (2003) report student emotional and social health are significant factors of higher GPAs and retention and that "demographic and academic variables alone did not fully explain the variation in academic success of college students" (p. 26). More recently, Sorey & Duggan (2009) reported findings consistent with Tinto's model that academic integration exerted a strong influence on persistence especially for traditional-aged students.

Self-Efficacy. Torres & Solberg (2001) hypothesized that students' perceptions of family support would have a positive influence on academic self-efficacy and have an inverse relationship with levels of stress. These researchers found that family support was strongly associated with self-efficacy which in turn was associated strongly with social integration and persistence intentions.

Bandura's Self-Efficacy Theory (1977, 1986, 1987) explains the value of self-efficacy in determining if a behavior will be initiated, the amount of effort spent, and the

persistence of behavior when encountering obstacles. Numerous researchers have found positive correlations between self efficacy and academic performance. Kahn & Nauta, (2001) studied college students from their first year through their second year. They found that first semester self-efficacy beliefs were not related to persistence. However, they did find that second semester self-efficacy beliefs and performance goals were significant predictors of persistence. Pascarella and Terenzini (1991) reported that when student performance matched their expectations (e.g., their expectation to receive high grades was fulfilled), their expectations for future success remained strong. Conversely, when their performance did not match their expectations (e.g., they expected high grades but got low grades), their beliefs in their abilities decreased which the researchers suggested may lead to student departure.

In a meta analysis of 36 empirical studies, Multon, Brown, & Lent (1991) found strong effect size for the relationship between self-efficacy and performance and for the relationship of self-efficacy and persistence. Their calculations indicate that self-efficacy accounts for approximately 14% of the variance in academic performance and approximately 12% of the variance in academic persistence.

Goals. In a study of 433 college freshmen, Hull-Banks, Robinson Kurpius, Befort, Sollenberger, Foley Nicpon, & Huser, L. (2005) reported that freshmen without an identified career goal made less positive persistence decisions than did those with a defined job-related career goal. One of the problems we currently face is that many students either have vague goals or no goals at all. Schneider and Stevenson (1999) reported that students were having a difficult time identifying concrete academic goals and action plans. Chickering & Reisser (1993) proposed that there are seven vectors

associated with the development of a student's sense of identity and motivation to persist in college. Two of those vectors were (1) developing a sense of purpose and (2) clarifying career goals. The researchers also stated that students who experience difficulty developing one or more of these vectors may drop out.

Demographics. There is a plethora of research on demographics as it relates to retention. Variables including part-time versus full-time students, age, gender, ethnic background, residence (on or off campus), and recipients of financial aid have been studied to characterize students who are likely to persist or to drop out. For example, Feldman (1993) tells us that the highest attrition rates were for students between the ages of 20 to 24, and Austin (1964) found that women had higher attrition rates than men (14% and 9% respectively). Metzner (1989) found ethnicity was significantly related to college GPA with minority students performing lower than nonminority students. Although this information is useful in determining interventions that the colleges may provide for specific student groups, it is not pertinent to the purpose of this study in determining the impact of career guidance experiences in helping all students persist in higher education.

Mental Health. Numerous researchers report findings relating emotional health and college student retention. Houston (1971) found that a higher percentage of first-year college students reported psychological distress and sought counseling services than upper class students. The researcher suggested that students found it psychologically distressing to transition from high school to college. Leafgran (1989) reported that emotionally healthy students have a greater chance of persisting in college than students who are not emotionally healthy.

An important mental health consideration relating to persistence and choices is the phenomenon of indecisiveness. This is different than the common experience of career indecision which makes it difficult for an individual to choose a career. Indecisiveness prevents the individual from being able to make a decision. This generally necessitates psychological help (Osipow, 1999).

Personality. The research reveals a mixture of results on how personality impacts performance and persistence. In the mid 1960s, researchers seemed more sure that there was a correlation, with Austin (1964) showing moderate correlations for the relationship of individual traits such as overemphasizing personal pleasure, low self-control, aloofness, self-centeredness, and assertiveness and student retention. More recently, Evans, Baer, & Segerstrom (2009) found that trait mindfulness, particularly its non-judging and non-reacting facets, predicted increased persistence on a difficult lab task ($N=142$). The same researchers were surprised that self-critical facets of self-consciousness were negatively related to mindfulness and self-consciousness and did not predict persistence as expected.

In a study of 2,423 community college adults, Maitland, Nyberg, Bäckman, Nilsson & Adolfsson (2009) tried to correlate personality traits to character qualities through the use of the widely accepted Temperament and Character Inventory (TCI). The TCI is used as a measure of psychological aspects of personality which identifies character traits as self-directedness, cooperativeness, and self transcendence and temperament traits as novelty seeking, harm avoidance, reward dependence, and persistence. They found no support that individual differences on the seven TCI factors reflect distinct temperament or character dimensions of personality. The researchers

reported, “Results for novelty seeking were marginal and self-transcendence, reward dependence and/or persistence factors were not acceptable” (p. 180). More simply put, the researchers could not correlate the character traits to specific temperament traits like persistence.

Summary of Retention Issues

The meta-analysis by Robbins, et al. (2004) analyzes 109 studies to clarify the relationship of what the authors call Psychological and Study skill Factors (PSF) with retention. The PSF factors included were achievement motivation, academic goals, institutional commitment, perceived social support, social involvement, academic self-efficacy, general self-concept, academic-related skills, and contextual influences (financial support, size of institution and institutional selectivity). This was a meticulous analysis of the research, but one of the most significant findings for the present study was that the relationships between “(...academic-related skills, academic self-efficacy, and academic goals) and retention were highly positive” (p. 270). Their conclusion was that the PSF constructs were a much better predictor of retention than other factors. “Supplementary regression analyses confirmed the incremental contributions of the PSF over and above those of socioeconomic status, standardized achievement, and high school GPA in predicting college outcomes” (p. 261). This is important to consider in light of the fact that the career development also emphasizes motivation, academic goals, and other PSF constructs as shown in the following sections.

Career Development Theory

The field of career development is recognized as formally beginning one hundred years ago with the publication of Frank Parsons’ book, *Choosing a Vocation*, (1909).

Parsons ideas were very interesting to the young people of his time with the idea of matching the individual's interests and aptitudes with job traits (Baker, 2009). Parsons thought it was very important for people to take a scientific approach to their career pursuits which are reflected in this statement from his book.

The wise selection of the business, profession, trade, or occupation to which one's life is to be devoted and the development of full efficiency in the chosen field are matters of the deepest moment to young men and to the public. These vital problems should be solved in a careful, scientific way, with due regard to each person's aptitudes, abilities, ambitions, resources, and limitations, and the relations of these elements to the conditions of success than if he drifts into an industry for which he is not fitted. An occupation out of harmony with the worker's aptitudes and capacities means inefficiency, unenthusiastic and perhaps distasteful labor, and low pay; while an occupation in harmony with the nature of the man means enthusiasm, love of work, and high economic values, superior product, efficient service, and good pay (Parsons, 1909, p. 3).

Parson's ideas are still a significant part of career guidance today although we now understand there is more to career guidance than interest and aptitude.

Presently, John Holland and Donald Super are recognized as the two most prominent theorists in the field of career development. Their articles and books, along with works written by others about their theories, dominate the career development literature (Weinrach, 1996). Holland's theory, first published in 1959, was based on personality traits in contrast with Parson's ideas of interests and aptitudes. He provided a taxonomy of six personality dimensions (Realistic, Investigative, Artistic, Social,

Enterprising, and Conventional). According to this theory, one or more of these dimensions describes a person's individual work personality. Holland further proposed that work environments could be categorized along these same six dimensions by the personalities of those working in various occupations. The work environments also could be categorized by detailed job analysis identifying the dimensions that would be needed in a specific job. In the ideal scenario, an individual's personality traits would match up with work environments to indicate which occupations would best suit that individual. Several instruments have been developed with Holland's theory including the Vocational Preference Inventory (VPI) and the Self-Directed Search (SDS) (Weinrach, 1996).

Donald Super began publishing his ideas in the late 1940s. He explains that vocational psychology was essentially a psychology of occupations up until 1950. The occupations were the subject instead of the people. Super's approach was different in that it focuses on,

...life stages and processes in vocational development, on patterns of career development, on the nature and causes of vocational maturity and its role in choice and adjustment, and on the individual as the synthesizer of personal data, the interpreter of experience, and the maker of decisions (Super, 1969, p. 2).

Super was influenced by the work of other psychologists, especially those of Charlotte Buehler (1933) and Eli Ginsberg (1951) (Super, 1969). Super advocated that occupational choice is an unfolding process, not a point-in-time event. He viewed careers as a series of unfolding developmental stages with each stage characterized by certain "appropriate" tasks. Numerous instruments were developed to test for a construct

he called career maturity (CM) which would indicate the validity of an individual's wisdom or realism of a vocational choice (Patton & Lokan, 2001).

Another perspective on career variables is that of Hackett and Betz (1981) who proposed that self-efficacy beliefs (one's belief in his or her ability to carry out actions to reach a desired goal) were the central issue of behavior towards a goal. The authors' review of literature on self-efficacy beliefs shows that this was a good predictor of academic achievement and persistence.

Lent, Brown, and Hackett (1994,1996,2000) extended the work of Hackett and Betz to what is known as social cognitive career theory (SCCT) which was based on Bandura's (1977) social cognitive theory. The basic propositions of SCCT are that the environment exposes one to a variety of career relevant experiences during the life span and that an individual is differently reinforced for pursuing certain activities and not reinforced for pursuing others. These experiences eventually result in the development of personal efficacy beliefs for a wide domain of activities. According to this theory, the combination of an individual's self-efficacy beliefs and outcome expectations will account for more variance in career interests than will either variable taken alone. The authors predicted that developing interests, along with outcome expectations and self-efficacy beliefs will influence the establishment of goals.

Research on Career Guidance Outcomes

Although research can be found on the topic of career guidance, there is a general dearth of research that connects career guidance to retention and performance. In his analysis of current career theory and practice around the globe, Amundson, (2005) explains that worldwide research on career theory and practice is piecemeal, fragmented,

and unsystematic. Three annual reviews in *Career Development Quarterly*, (Harrington & Harrington, 2006; Chope, 2008; Patton & McIlveen, 2009) discuss the recent research in career guidance in multiple areas, but only one study reported outcomes related to the impact of a career guidance intervention with students and that did not deal with retention or performance. These research and articles covered client populations around the world, gay and lesbian issues, working with the disabled, mentoring service delivery systems, various counseling models that have been implemented, international perspectives, and book reviews. One study (Brewer & Landers, 2005) implemented a program called Talent Search was successful in encouraging students to enroll in postsecondary education, and one study (Hull-Banks, et al. 2005) which was focused on career goals and retention. Nothing else on the impact of career guidance with students remaining in college or academic performance was reported. The *Vocational Guidance Quarterly* journal ranges only up until 1986, The Journal of Vocational Behavior rendered one article from a study done in Belgium that measured students persistence in college based on making a career choice before leaving high school. This research did not discuss what activities preceded the career choice (Germeijs & Verschueren, 2007).

Two studies have been found that closely relate to the present study. The first is by Hull-Banks, et al. (2005), which studied the relationship between career goals and retention related factors. They found that students who did not have career goals were less likely to persist in their education. Although the study showed a clear positive relationship between career goals and retention, it did not study career guidance directly as did the present study.

The second study is a dissertation by Metz (2005) which involved 902 freshmen college students who were enrolled in a first-year seminar course. This research was designed to determine the value of career related variables on traditional college freshmen student performance and retention. The researcher reported that career-related variables did not account for significant variance in college student retention. This finding may be the result of a poor choice of the student sample. The participants in the Metz (2005) project were comprised of all students in the first-year seminar UNIV 101 course. Students in this course consisted of 66 percent of students who were required to be in the class because they were under a “special admissions” contract. The other 34 percent were enrolled on a voluntary basis. It is very possible that most of the students who were more highly motivated and had identified career goals would not have been enrolled in the UNIV 101 class. Metz did suggest that future research in the use of career-related variables and vocational theory to explain persistence and performance warranted more attention.

Considering the lack of robust data linking career guidance and retention and that two recent studies found on the subject did not adequately address the focus of the problem of this study, it is reasonable to assume that this proposed study will make a worthy contribution to the research. There is also an absence of any research on this topic for small private universities.

Summary

Chapter II reviewed the research specific to career guidance and retention. The first section discussed the drop-out problem and the hardships that it creates for individuals, institutions, and society. The second section discussed two predominant

retention theories of Tinto (1975, 1993) and Bean (1980, 1985) and how they support the idea that non-cognitive factors are important in performance and retention issues. The third section provided an overview of career development theory including the founding ideas of Frank Parsons (1909), the ideas of Holland and Super (Weinrach, 1996), Hackett and Betz (1991) on self-efficacy beliefs, and Lent, Brown, and Hackett (1994, 1996, 2002) who applied social cognitive career theory (SCCT) into career development. The last section provided the basis for the fact that there is a general lack of empirical research linking career guidance to student performance and retention.

The purpose of the present study is to discover the type and quality of pre-college career guidance experiences of incoming freshmen at a small private school and to what extent those experiences impact retention. The results of this study will be helpful in promoting the need for effective career guidance at the SDA academies. This, in turn, will help prepare students for a successful transition to higher education and on to their chosen career.

CHAPTER III

METHODS AND PROCEDURES

Introduction

This study was a mixed methods approach using quantitative data from survey questions and qualitative data from student interviews, document reviews, and classroom observations. The mixed methods approach triangulates data sources and provides a means for qualitative and quantitative data to reinforce each other (Creswell, 2009). This promotes confirmation and completing the data analysis process. Confirmation examines and compares data from multiple sources thus enhancing the validity of the study. This also promotes completeness providing more comprehensive, insightful data (Casey & Murphy, 2009). Mixed methods also help to show divergences that would not be seen by just one method (Kelle, 2006). This approach is especially appropriate when answering complex questions (Harden & Thomas, 2005).

Correlations were made between career guidance scores and retention from freshmen year to sophomore year and with cumulative grade point averages. Interviews were conducted to determine the value and quality of the precollege career guidance experiences as described by the students. Multiple sources of data revealed that one of the academies was providing an exemplary career guidance program and was chosen for observations and document reviews to better understand their methods.

Population

The site for this study is a private liberal arts college of the SDA educational system located in Tennessee with a total undergraduate population of approximately 2,000 students. The majority of the first time freshmen students came from SDA

academies within the Southern Union, but some are from public high schools, some from home school environments, and some who have earned GED in lieu of a secondary diploma. The retention rates for students transitioning from freshmen to sophomore year have been on the average of 70.16% over nine years (SAU, 2010-11, p. 40). Therefore, beginning in 2008, the institution initiated a new required course for first time freshmen called “Southern Connections”. The sample for this study was comprised of students enrolled in this course during the fall of 2010. These are first time college students between the ages of 18 and 22 years old. As part of the course, they are asked to take an on-line survey, MAP Works, two times during the school year to determine how well they are succeeding in college. The MAP Works survey includes student demographic information on gender, ethnicity, secondary school attended, secondary and undergraduate cumulative grade point average, undergraduate major, and semesters enrolled. The questions relating to this study (Appendix A) were added to the MAP Works survey the second time it was administered in October 2010.

Research Variables

The quantitative research predictor variables consisted of several key career guidance activities that often accompany comprehensive career guidance regimes. Those identified for this study are: (1) a career exploration course or related activities; (2) career counseling; (3) personality, interest, or aptitude assessment; (4) job shadowing; and (5) work experience.

Career exploration coursework and individual career counseling are important for high school age students because “knowing their intended career trajectory is helpful to inform program planning” (Witko, Bernes, Magnusson, & Bardick, 2006). Students who

are confident in their career goals and have carefully researched career plans are more likely to succeed (Witko et al., 2006).

Personality assessments are a useful tool for career guidance counselors and come in many forms with many based on Holland's (1985, 1997) vocational personality typology. Holland's typology characterizes individuals and environments as a single set of six types. A vast number of instruments are available to assess an individual's dominant personality, most notably the many versions of the Self-Directed Search (SDS) (Miller, 2007). Comparisons are being made with those traditional and on-line versions of these assessments (Chauvin & Miller, 2009) and are called interest inventories or personality tests, but they are designed to determine how well a particular personality fits a specific occupation.

Job shadowing is another viable career development activity (Visher, Bhandari, & Medrich, 2004; *Techniques: Connecting Education & Careers*, 2009) and is used in many programs to help students develop their interests. Some of the schools surveyed in this study have adopted various methods to incorporate this as a part of the career guidance curriculum.

The experience of work promotes interest in one's own career interests which is helpful for students because they often don't make career decisions until faced with the fact that transition to work is an eminent reality (Helwig, 2004). In their study of *Differences in Career Attitude and Career knowledge for High School Students with and without Paid Work Experience*, Creed and Patton (2003) explain that "Those students with paid work experience scored consistently higher on the Career Development Attitude (CDA) variable than those without paid work experience" (p. 29).

The dependent variable of retention was measured by enrollment data for the second semester and by pre-registration data for the fall semester of 2011. The dependent variable of performance was measured by the cumulative semester grade point average of each respondent.

Survey Instrument Design

The survey questionnaire for this study was designed to determine the nature and extent of career guidance experiences provided to freshmen before coming to college. Since this was not an effort to determine more abstract career guidance constructs such as levels of career maturity, career certainty, career decidedness, or specific career interests, professional instruments like the Strong Interest Inventory (SII), Career Decision Scale (CDS), and My Vocational Situation (MVS) were not used. The questionnaire for this study was designed to produce responses from students on factual information regarding the career guidance experiences they did or did not have. The pre-college career guidance questions that were included in the MAP-Works electronic survey are provided in Appendix A.

Reliability- A simple procedure often used to determine reliability is Cronbach's Alpha, also called coefficient alpha, which puts alternate items into two halves of a test or questionnaire. For example all even numbered questions would be considered one half of the test and odd numbered items the second half. The two have a good probability of being equivalent tests. A correlation between the results of the two halves will provide a value for reliability. Cronbach's Alpha was calculated for the survey resulting in a score of .698 using 10 variables, 5 from MAP Works and 6 career guidance questions. Values

of .7 and up are considered acceptable levels of reliability (Thorndike, and Thorndike-Christ, 2010).

Validity – Patten (2007) explains “It is often desirable to examine a given instrument in several different types of validity studies” (p. 70). First, the questionnaire was reviewed by a panel of experts consisting of the Director of Student Success Center; the Director of Institutional Research; the Assistant Director of Advisement; and a Professor of the Education and Psychology Department. These experts made suggestions regarding the format and wording of the survey questions. These recommendations were followed to produce the revised survey. Secondly, the instrument was pilot tested with 27 freshmen in August of 2010 and adjustments were made. Creswell (2007) explains that 30 is a good number for a pilot study. The pilot study had identified 30 students, but 3 were dropped because of incomplete data. Initially, each component of the survey had two questions making a total of 10 survey questions. For each career guidance component, the first question asked if a particular career guidance activity had been experienced, then the second question focused on the extent of the experience. Some of the student responses did not complete both questions. For example, several students indicated that they did not experience a particular career guidance activity, but then did not respond to the second question that confirmed they did not have that experience. To eliminate errors in the data, only one question was asked for each component resulting in only 5 questions. The final measure to ensure validity was to confirm survey results during individual student interviews. The student interview responses were compared for accuracy as reflected on their responses to the survey questions. These finalized survey questions are provided in Appendix A.

Qualitative Design

The purpose of the narrative component of the present study was to understand the type and depth of pre-college career guidance experiences provided to individual students and to identify exemplary practices. The largest numbers of students attending the site for this study come from the academies of the Southern Union which includes 18 academies from 8 states. A phone survey was implemented to determine the extent of career guidance activities provided by the academies (see Appendix F). Of these, Georgia Cumberland Academy (GCA) was chosen for on-site observations because of the extensive career guidance services including a careers class, job shadowing, career assessments, and in-depth individualized counseling. None of the other academies provided guidance activities to this extent. Statistical rationale for this choice is further explained in detail in Chapter IV. The researcher collected data at the selected school through classroom observations and document reviews of career guidance materials. A total of twelve students were chosen for interviews based on three levels or groups of career guidance experiences as reflected in the responses to the MAP Works survey, (1) minimal exposure, (2) moderate exposure, and (3) extensive exposure. Two male and two female students were selected for each group using random sampling. There is a lack of consensus on the number of interviews required for a particular population. Steinar, (1996) suggests that a researcher should interview as many subjects as necessary to find out what you want to know. Random sampling is often used to ensure that each individual has an equal probability of being selected so the sample can be generalized to the larger population (Creswell, 2009).

Methods of Data Collection

This study used a mixed methods approach using both quantitative and qualitative procedures. Data for the first research question, *What pre-college career guidance experiences were provided to the traditional college freshmen*, was gathered through student interviews, in-class observations, document reviews, phone survey to academies, and on-line survey results. In order to answer the second research question, *What types of pre-college career guidance experiences do traditional college freshmen report*, the on-line survey results, student interviews, and enrollment and performance records were used. Student interviews were used to answer research question three, *To what extent do students perceive these pre-college career guidance experiences as beneficial?*. Research question four, *What is the impact of pre-college career guidance experiences on student persistence and performance*, was answered by the on-line survey results and student enrollment and performance records.

Care was taken to comply with all regulations regarding human subjects. The Human Subjects Application form was completed and approved by the human subjects committee of both Old Dominion University and of the institution of this study before the research began. An informed consent form was provided to participants stating their guaranteed rights, requesting their agreement to participate in the study, and stating that their rights will be protected. Confidentiality of participants' questionnaires and responses were protected by coding student names and data. Participant names in the electronic survey have been coded so they will be untraceable to individuals. All of the personal data from the study, including electronic files, are secured in a locked metal file cabinet and will be destroyed within one year of the completion of the study. Summary

data will be given to the participants and to the professional community, but no information will be able to be traceable to an individual participant.

Interviews

Student interviews were a very important part of the qualitative component of this project because the student experience was the focus of two of the four research questions. None of the participants were students of the researcher. The researcher randomly chose 12 students to interview, four at each of the three groups of career guidance.

The setting for the interviews was a conference room at the institution's library. This was a neutral setting not affiliated with any specific. Once participants were identified, students were contacted by phone and asked to participate in the interviews. An e-mail confirming their choice to participate along with a copy of the Informed Consent form was sent to each participant. They were again contacted by phone to arrange a time for the interview and were then sent a confirmation e-mail for the appointment. This process informed participants of the nature of the project, of their human rights as participants, and documented their participation and appointment time. Samples of correspondence with the participants are contained in Appendix C. The interview protocol is provided in Appendix D. A copy of the informed consent document that the participants were asked to sign is provided in Appendix E.

Observations

Observing provides a means of understanding a phenomenon and is a means of triangulating data for validity (Patton, 2002). Observing exemplary class activities provided insight into the typical experiences that freshmen have before coming to

college. There may be minor differences in the experience of students from year to year because of group dynamics and variations on the way the material is presented, but the overall trend of what is provided should be very similar from year to year within the same academy.

The observations were arranged in advance with for site visits. Initial contact with the school principal served to explain the research project and to secure permission and assistance for observations and related documents.

Once the investigator placed introductory phone calls, a visit was scheduled with the school principal to establish the permission for an observation of guidance activities. The investigator was not a participant during any of the observations. Notes were recorded on a portable laptop computer. A protocol for the observation is provided in Appendix B. These observations were made during the Spring of 2011. Sample e-mail for appointment confirmation and follow-up are contained in Appendix C.

Document Reviews

The third data source for this project consisted of document reviews of syllabi, textbooks, lesson plans, course hand-out materials, media, bulletin boards, and web sites used in providing career guidance activities. Records, documents, and other artifacts are a rich source of information about organizations and programs. Thus, archival strategies are a valuable part of research and evaluation (Patton, 2002). This was useful in the research because it documents the various learning activities and materials used. Table 1 summarizes the type of document, rationale, and collection procedures. Content analysis of the documents produce data-driven code that is sensitive to the context of the raw data,

and allows for analysis using the spiral analysis process which is described in more detail in the next section.

Table 1

Documents for Pre-College Career Guidance Study

Type of Document	Rationale	Collection Procedure
Course Syllabus	Course purpose and content	Ask Principal & Instructor
Course Textbook	Course scope and content	Ask Principal & Instructor
Lesson Plans	Planned activities	Instructor
Course Handouts	Details of assignments	Instructor
Media	Outside material	Instructor
Bulletin Boards	Reinforcement and encouragement, publicity	Ask Principal, instructor & Office Manager
Web Sites	Additional class assignments	View on-line & assess career related information

Phone Survey

A telephone survey was made to all of the academies of the Southern Union to determine what career guidance services they were providing to their secondary students, see Appendix F. Questions were asked relating to major career guidance activities such as a career class, job shadowing, assessments for aptitude and interest, individualized career counseling and work experience programs.

MAP-Works Survey

Career guidance factors were measured through the use of questions that were added to the MAP-Works on-line survey administered to all Southern Connections students during the fall of 2010. These questions were used to determine freshmen pre-college career guidance experiences. Informed consent is a part of the MAP Works survey process. Data from the survey was provided to the researcher in the form of excel spreadsheets and was imported to SPSS, v.18, for statistical analysis.

Data Analysis

Quantitative Analysis

Descriptive statistics were determined and reported for the participant responses on the MAP-Works survey on precollege experiences. A one-way analysis of variance (ANOVA) was conducted to evaluate question four: *What is the impact of pre-college career guidance experiences on student persistence and performance?* The ANOVA was used because it is valuable for numerous group comparisons (Sprinthall, 2007). While the ANOVA is an appropriate statistical procedure, the assumption of random samples from normal probability distribution may not be entirely met in this case. As Driscoll (1996) points however, in practice it is difficult to know the degree of departure from normality as well as cost-prohibitive to collected additional data. Simulation studies have demonstrated that ANOVA is robust in it produces insignificant differences from nominal Type I errors even when used with non-normal populations (Driscoll, 1996). Comparisons of levels of career guidance experiences were made with GPA performance and continued second year enrollment for three groups of the sample. The three groups consisted of those with little or no career guidance, those with moderate career guidance,

and those with extensive career guidance. The strength of the differences was calculated using effect size calculations. Effect size is an appropriate measure of strength of ANOVA differences (Mayers, Gamst, & Guarino, 2006).

For the purposes of this analysis, the computed variable (composite career guidance score) was determined by adding the values of the first 5 survey questions. This was simple because all the career guidance variables used the same metric. In order for a student to have a high value for the cumulative career guidance score, he or she would have been involved extensively in multiple career guidance activities. The responses to survey questions were coded to accommodate mathematical calculations and analysis.

Another computed variable (career guidance group) was created by ranking the composite career guidance score for each student into one of three groups. The value of (1) was assigned to those with composite career guidance values of 0 to 3; (2) for those having composite career guidance values between 4 to 6; and (3) for those with scores from 7 to 13. This allowed for comparisons of student retention and performance between those with little or no pre-college career guidance experiences with those with moderate amounts or with others with extensive career guidance experiences. This also provided a rational basis selecting students to be interviewed so that an equal number of students were interviewed from each group. Students were randomly selected within each of the three groups for interviews. All analyses were conducted using the Statistical Package for Social Sciences software (SPSS), version 17 for Windows.

Qualitative Analysis

An inductive approach to thematic analysis was used to identify quantitative patterns and develop appropriate codes. Each of the types of data were analyzed following the spiral process described by Creswell (2007) of data managing, reading, memoing, describing, classifying, and interpreting, with the process being repeated until no new results were found. Triangulation of the data, from observations, interviews, and document reviews provided for consistency and validity. The first step in the analysis process was entering raw data in MS Word files on the computer. Then the data were read and memos and notes written. The researcher classified and interpreted as data were read and memos were written. This process was redone until no new results were obtained. The codes were *in vivo codes* (Patton, 2002) whereby names were drawn from the terms used in the context of career guidance or are exact words of participants. The resulting codes were classified into three or four main themes. The data was interpreted to corroborate all of data collected. To some extent a deconstructive stance was taken when all the data were viewed as a whole to find contradictions or examining silences on what is not said.

Summary

This was a mixed methods study with the purpose of determining the quality and impact of pre-college career guidance experiences of the FY - 2010-11 first time freshman students at the site for this study. Interviews of students provided details of their pre-college career guidance experiences and confirmed results from the on-line survey. On-site observations and document reviews provided detailed information regarding best practices by the academies. The qualitative activities were used to answer the first three research questions: (1) *What pre-college career guidance experiences were*

provided to the traditional college freshmen?; (2) What types of pre-college career guidance experiences do traditional college freshmen report?; (3) to what extent do student perceive these pre-college career guidance experiences as beneficial?

Quantitative data were collected from an on-line survey which provided information on individual student performance and retention as well as a clear picture of career guidance activities as either experienced by the individual student or provided by secondary institutions. Survey results provided for the identification of three groups of students in the sample based on levels (groups) of career guidance experiences. The identification of these groups provided for comparisons for retention and performance between those with little or no pre-college career guidance with those who had extensive career guidance experiences. In addition, a phone survey to the academies of the Southern Union provided detailed information on what career guidance activities were being provided at these secondary institutions. The independent variables were the different career guidance activities as assessed in the survey consisting of: career exploration coursework, career guidance assessments, job shadowing; individualized career counseling, and work experience. The dependent variables were undergraduate grade point average and enrollment in the next school year (persistence). An ANOVA was used to analyze the survey results along with student performance and persistence data to answer research question number 4: *What is the impact of pre-college career guidance experiences on student persistence and performance?*

CHAPTER IV

FINDINGS

The problem of the study was to determine the impact of pre-college career guidance activities on freshman persistence and performance in higher education at a small private university. The study also explored the attitudes of the freshmen regarding their pre-college career guidance experiences, or lack thereof, and the methods of delivery by academies that provide freshmen to the university.

Overview

The response rate to the on-line survey was high, providing 491 student responses from a total of 630 first year freshman. The data set included detailed demographic information and breakdown by secondary school attended as well as the five career guidance survey questions. Findings for research questions 1, 2, and 3 were from either the on-line survey, the phone survey to academies, or student interviews. Findings for question 4 resulted from statistical analysis of relationships between composite career guidance score with retention and cumulative grade point average.

Demographic Characteristics

There was almost an even split between male (46%) and female (54%). There was ethnic diversity of the sample consisting of 297 White/Caucasian (57%), 98 Hispanic (20%), 60 Black/African American (12%), 28 Asian (6%), 4 Native American/Hawaiian (1%), and 21 Non-resident Alien or Race not known (4%). A summary of the demographic information is provided in Table 2.

Table 2*Demographic Characteristics of Sample (n= 491)*

Demographic Characteristic	Frequency	Percentage
Gender		
Men	286	46%
Women	344	54%
Race		
Asian	28	6%
Black/African American	60	12%
Hispanic	98	20%
Native American/Hawaiian	4	1%
White/Caucasian	297	57%
Non-resident Alien	21	4%
School Type		
SDA Academy	356	73%
GED	9	2%
Home School	14	3%
Public High School	95	19%
Other Christian School	12	2%
Not Known	5	1%

A listing of the variable names and codes along with the values used in the MAP-Works data set for this study is represented in Table 3.

Table 3*Coding of Data for Career Guidance Survey*

Variable Code	Variable Name	Values
Stuno	Student number	Number
Gender	Gender	1= Female 0= Male
Race	Race	0= Nonresident Alien 1= Unknown 2= Hispanic, 3= American Indian 4= Asian, 5= Black, 6= Native Hawaiian 7= White, 8= Two or more races
CumUGPA	GPA	0 – 4.0
Schtype	School Type	HS= Public High School ACA= SDA Academy GED = Student completed GED Home= Home schooled OC= Other Christian School
OQ1a	Careers Class	0,1,2,3,
OQ2a	Job Shadow	0,1,2,3
OQ3a	Assessments	0,1 & 2
OQ4a	Career Counseling	0,1,2,3
OQ5a	Work Experience	0,1,2,3
EnrollFall	Year 2 Enrolled	0 =not enrolled, 1= Enrolled

Table continued on next page

Table 3 (Continued)*Coding of Data for Career Guidance Survey*

Variable Code	Variable Name	Values
OQ6tot	Composite C.G. Score	Range 0 - 14
Major	Major	Gen Ed = 0 or no choice =0 All others 1
OQ6Group	Career Guidance Group	1= OQ6tot of 0-3 2= OQ6tot of 4-6 3= OQ6tot of 7-13

Research Question 1

What pre-college career guidance experiences were provided to the traditional college freshmen? This question was answered through the phone questionnaire to the academies, through student scores on the composite career guidance score (OQ6tot), from the MAP Works on-line survey, and through student interviews. A mean for the OQ6tot was calculated for each of the academies which provided a picture of student career guidance experiences in each institution.

Phone Questionnaire and Student Survey

A phone survey was completed for the academies of the Southern Union to determine what career guidance activities were being delivered to students. The results are shown in Table 4. The survey questions are detailed in Appendix F.

Table 4*Career Guidance Activities of Southern Union Academies*

Academy	Careers Class	Job Shadowing	Assessment	Individual Counseling	Work Experience
1	X	0	L	0	0
2	0	0	0	0	X
3	0	0	0	0	0
4	0	0	X	X	0
5	L	X	X	L	0
6	L	0	0	0	0
7	L	X	L	L	0
8	X	X	X	X	X
9	0	0	X	0	0
10	L	0	X	0	0
11	L	0	X	0	0
12	0	0	X	0	0
13	0	0	0	0	0
14	0	0	X	X	L
15	0	L	X	0	0
16	0	0	0	0	0

X = Thorough implementation L= Limited implementation 0= Not implemented

Mean composite career guidance scores (OQ6tot) from the MAP Works survey were calculated for each academy. Academy number 8 ranked the highest which is in agreement with the results of the phone survey, See Table 5 below. An academy from Colorado was one of the top three scoring academies on the survey, but it had a small number of students (N=12) and is not in the Southern Union. Both academy number 4 and academy number 13 showed high mean scores for the OQ6tot, but phone interviews revealed that academy number 4 was only providing personality assessments and individualized counseling and academy number 13 was only providing one career guidance activity. The fact that the student count was small (n=12) for both academy number 4 and academy number 13 implies that the high scores were was probably due to

outliers where students received additional career guidance experiences from activities outside of school. The highest mean scores for the academies are shown in Table 5.

Table 5

Highest Means for Composite Career Guidance Scores

Academy	Mean Score	N
Academy number 8	7.7647	34
Academy number 4	7.6364	11
Academy from Colorado	6.5833	12
Academy number 13	6.5000	12
Academy number 7	6.0185	54
Academy number 10	4.5000	28
OVERALL	5.55	151

This freshman class came from 156 different schools along with General Education Diploma (GED) students and home schooled students. For simplicity of data management, these different secondary schooling experiences converted into a calculated variable named school type (schtype). Academies of the SDA education system provided 356 students or 73% of the sample. Public high schools provided 95 students or 19%. Other Christian schools provided 12 students or 4%. There were 14 home schooled students or 3%. Nine GED students provided 2%. There were 5 students whose school type was unknown. The SDA academies had the highest composite career guidance mean (OQ6tot), followed by the other Christian schools, home schools, and lastly GED students having the lowest mean, see Table 6.

Table 6*Mean scores for the OQ6tot Composite Career Guidance by School Type*

School Type	Mean	N	Std. Deviation
Academy	5.8090	356	2.74093
Other Christian Schools	5.0000	12	2.92326
Public High School	4.9895	95	2.87504
Home School	4.6429	14	2.87180
General Education Diploma	4.3333	9	3.35410
Overall	5.5479	491	2.83406

Exemplary Practices

Academy number 8 was chosen as an exemplary program for on-site visits and for observations and documents review because it had the highest mean composite career guidance score (OQ6tot) (M= 7.76), it had incorporated all five of the career guidance variables into its curriculum, and it had the second largest number of students (N=34). Comparison of mean of Academy number 8 Academy (M=7.765) with the overall OQ6tot mean (5.55) shows significance at the .000 level. The OQ6tot variable has an overall mean of 5.55, a standard deviation of 2.834 and the standard error of the mean is .1278. The statistically significant higher mean for academy number 8 as well as the other factors just mentioned provided reasonable justification for using it as an exemplary program.

Academy number 8 provides a four-phase approach to career guidance that is provided to all students consisting of (1) a Career Exploration class, (2) a Job Shadowing experience for sophomores, and (3) an in-depth one-on-one review of individual results of the Myers-Briggs Type Indicator (Myers, McCaulley, & Most, 1985) with a licensed

psychologist, and (4) Work Experience. This program requires each student to be employed for pay at least two hours a day or 10 hours per week.

On-site Observation

During the on-site visits for exemplary career guidance activities, the researcher observed classroom activities for the Career Exploration class and found activities that appeared relevant and engaging for the students. The document reviews revealed a comprehensive effort to provide for student participation in meaningful activities including reports and presentations, as well as weekly experiences with activity based career exploration modules covering a variety of careers. The document reviews provided a clear picture of a well planned sequence of activities including Job Interviews, Job Searches, Teamwork in the Workplace, Worker Attitudes on Customer Service, and others. The majority of the documents pertained to the Career Exploration course.

The Career Exploration Course consisted of a variety of class activities including lecture, student generated reports, Job Shadowing, and career modules. The career modules were designed such that students participate in computer simulations and hands-on activities. Examples of simulations were flight simulators for Aviation and 3D computer aided design for Engineering. The students that were observed at academy number 8 in the Career Exploration course appeared to be interested and engaged in the activities. When the time came to do a presentation on the activities they had just accomplished, all participated and seemed enthused.

The job shadowing experience was an assignment that students were expected to fulfill during one of their home leaves. Most students at academy number 8 are boarding students and are given home leaves each semester. The assignment is to find someone in

their home town who is engaged in a career that relates to the student's interest and then to spend a day with that person as they work. Later they submit a report on the experience to their instructor in the Career Exploration Course.

The Myers-Briggs Type Indicator (MBTI) assessment is administered to all Senior students with an hour long follow-up discussion with a licensed psychologist. The purpose of this test is to reveal personality traits along with an appraisal of pertinent concerns in forming career choices.

Interviews

The interviews with university students revealed that the student responses were highly consistent with the survey results with 88% of the interview responses agreeing with the survey data. Inconsistencies were easy to account for. For example, one student indicated that he had no assessments on the survey, but in the interview, he remembered a minimal survey of less than 20 questions that was designed to provide some insight into his interests but played no significant role in career development experience.

Research Question 2

What types of pre-college career guidance experiences do traditional college freshmen report? Two sources of data were used to address this question. The first was through the responses to the on-line MAP Works survey which contained the questions on career guidance. Second was through the personal interviews on student perceptions of their pre-college experiences.

Survey Results

The survey results for the five questions added to the MAP Works survey revealed the following information about each of the five career guidance variables.

Survey Question 1: *Before you came to College, did you have any career exploration activities or coursework?* (1) 51% of the students had no career coursework whatsoever, (2) 23.4% had 1 week or less of career coursework in secondary school, (3) 9.9% had 2 to 4 weeks, and (4) only 15.7% had a full semester or more of careers coursework, see Figure2.

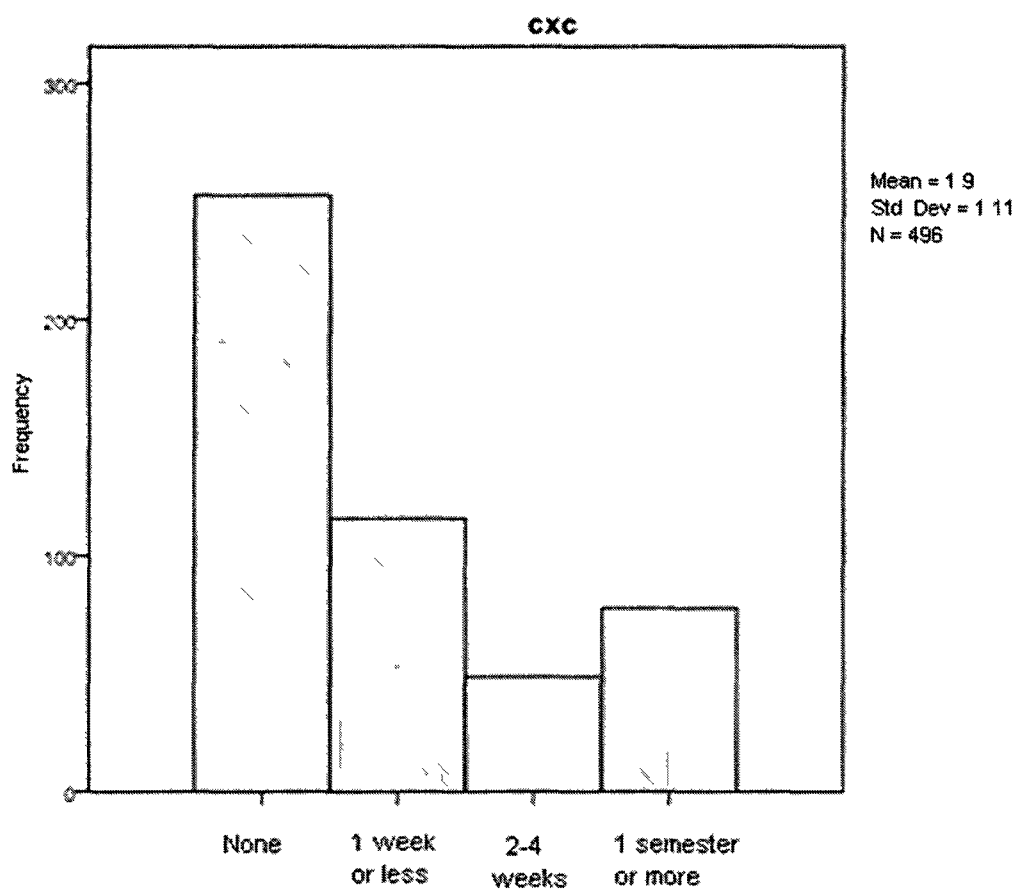


Figure2. Career Exploration Class

Survey Question 2: *Did you ever participate in a Job Shadowing activity* (1) 52% had no job shadowing experiences at all, (2) 13.5% of the students 2 hours or less of job

shadowing experiences, (3) 13.5% had a job shadowing experience of half a day or less, (4) Only 21% had a job shadowing experience of a full day or more, see Figure 3.

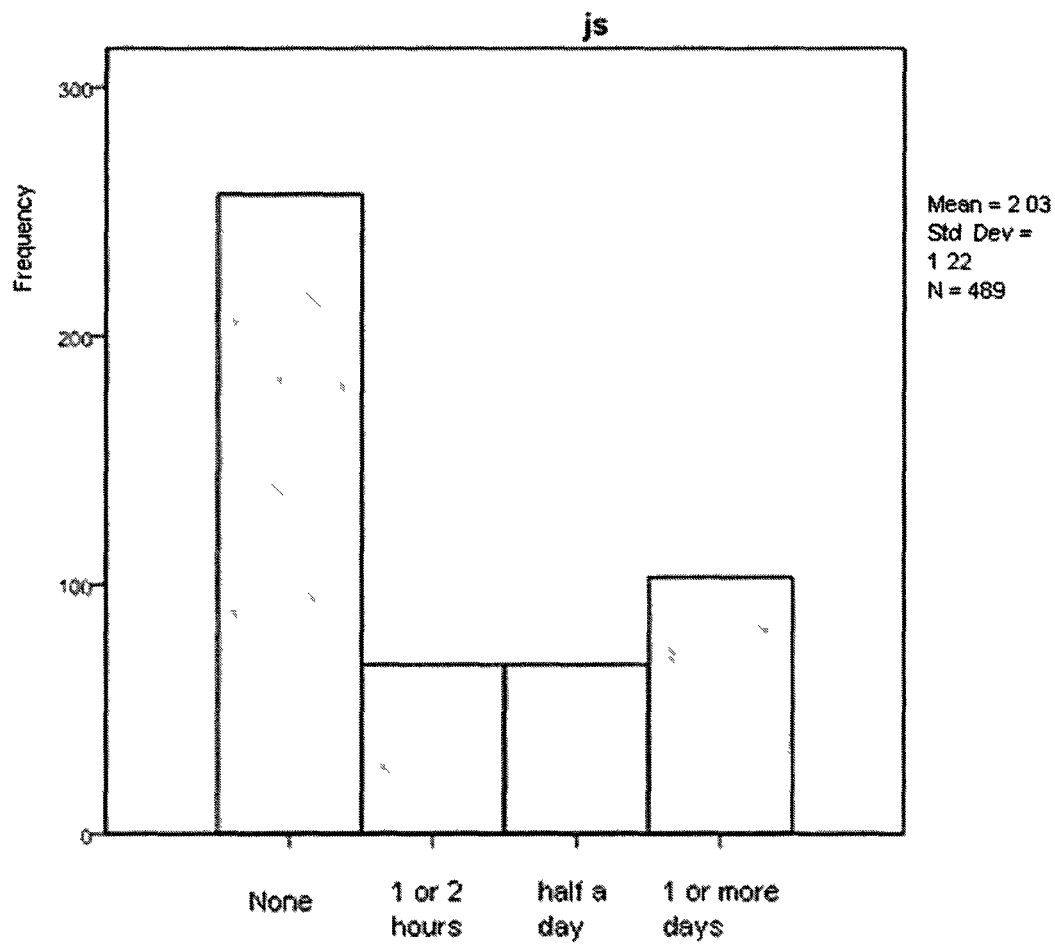


Figure 3 Job Shadowing

Survey Question 3: *Before coming to Southern Adventist University, have you ever taken an aptitude, personality, or interest assessment that was designed to help you understand more about your career options?* (1) 21% of the students had no interest or aptitude assessments before college, (2) 23 % had a paper/pencil assessment, (3) 24% had an on-line assessment, (4) 32% had both paper/pencil and on-line assessments. Overall, 79% of the students had some form of an interest or aptitude test while in secondary school, see Figure 4.

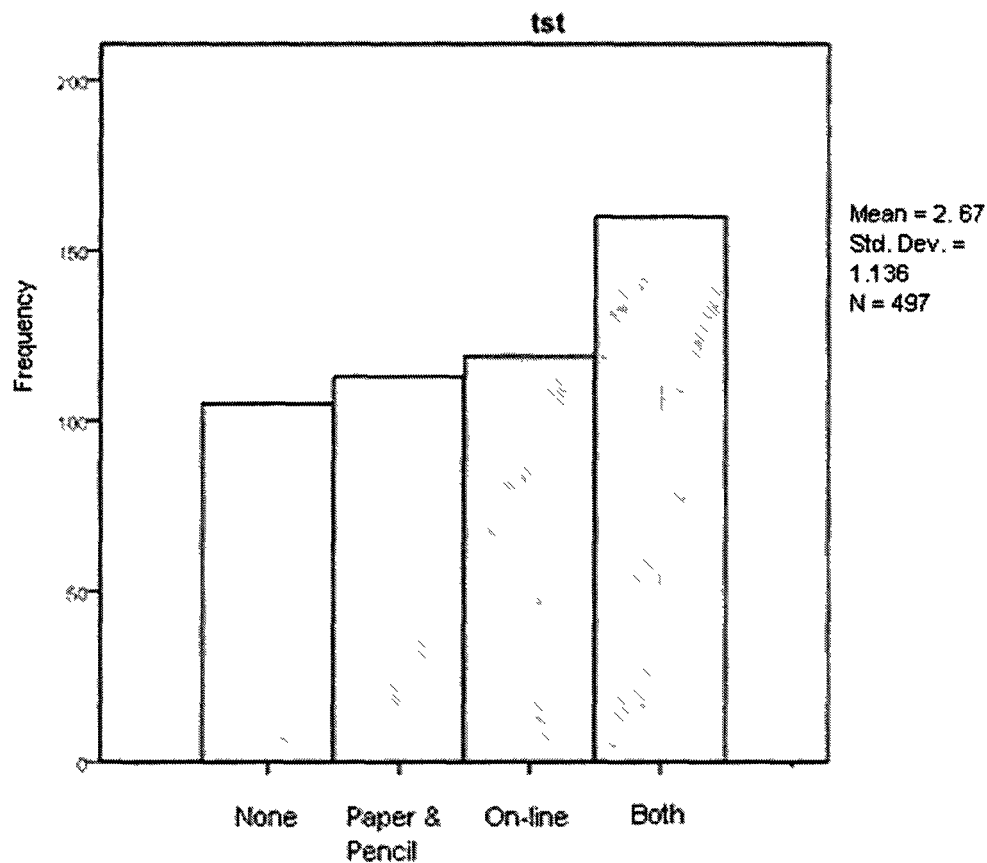


Figure 4. Assessments

Survey Question 4: Did you ever have **individualized career guidance counseling**? (1)

67% had no career guidance counseling at all. (2) 16% had one session between 15 minutes to 30 minutes, (3) 13% had as much as one session between 30 minutes and 1 hour, (4) 4% had multiple sessions for an hour or more, see Figure 5.

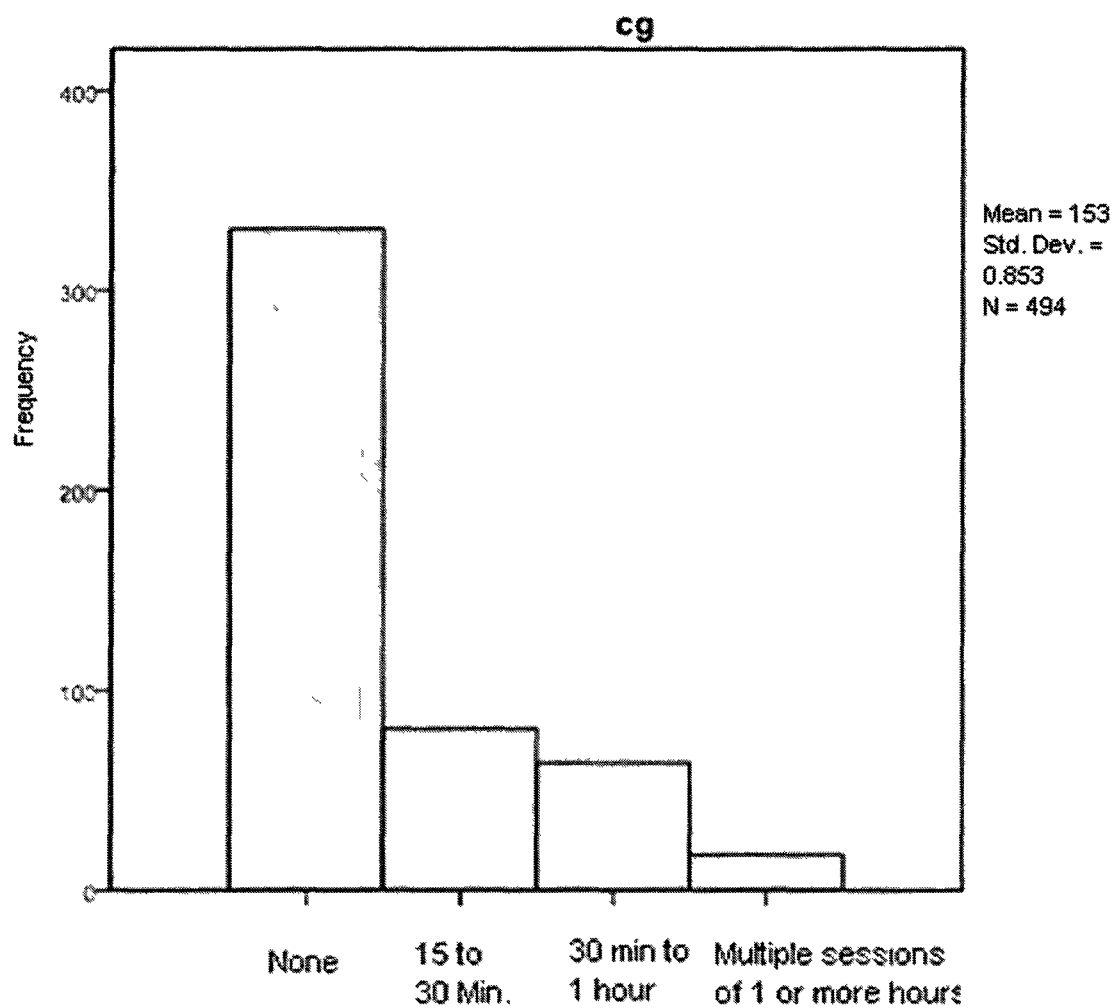


Figure 5. Individualized Career Guidance Counseling

Survey Question 5: *Did you ever **work for pay**, for someone other than your family or friends, before coming to college?* (1) 17% did not work at all (2) 15% had between 10 & 40 hours (3) 22% had between 160 & 480 hours, and (4) 46% of the students had 480 hours or 12 full time weeks of work, see Figure 6.

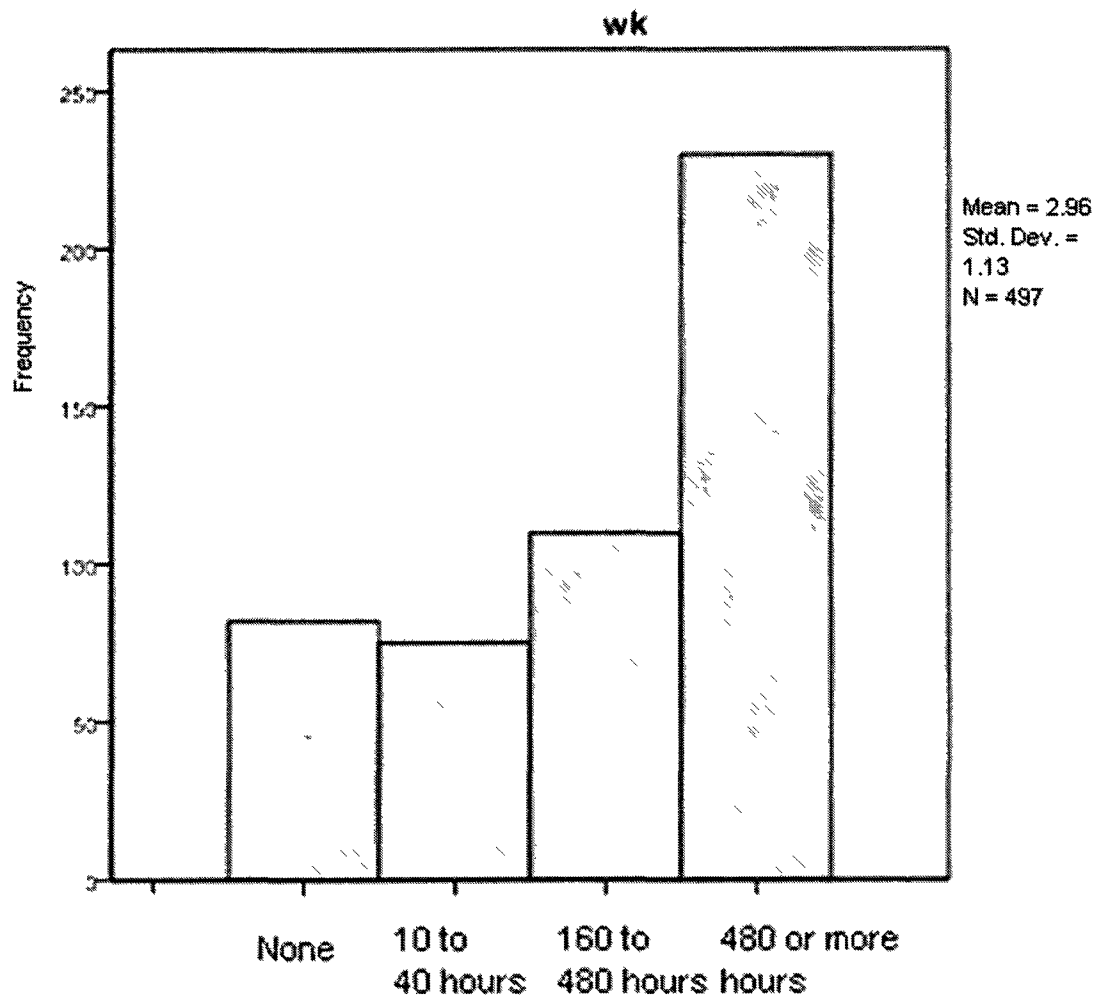


Figure 6. Work for pay

Interviews

Students were randomly picked for interviews with two males and two females from each of three groups of career guidance. The groups were based on the student

composite career guidance score (OQ6tot). Group 1, was comprised of those with scores that ranged from 0 to 3. Group 2 students had scores from 4 to 6; and Group 3 students had scores from 7 to 13. This selection process identified 4 students who reported little or no exposure to career guidance experiences before college, 4 students with a mid range of exposure, and 4 students who had high levels of exposure

The students with the Group 1 experiences who had little to no career guidance experiences reported a variety of factors that influenced their choice of a major. All but one had identified a major although it was evident that many were not very sure that the major was a good fit for them. The factors that influenced their choice for a major varied from family and friends to hobbies. A Group 1 student reported, “ it was kind of Eeny, meeny, miny, moe”, means of choosing. Another from this group stated that “I had no career counseling, but that is what you do more when you get to college.” Other interviewees from this group stated that they had trouble deciding on a major. In general, the basis for their major or career interest had little to do with their personal aptitudes. Several stated that their interest was stimulated by what their friends were choosing. The trend of the responses from Group 1 students was that they were left on their own to develop their career interests. All 4 of the Group 1 interviewees identified individualized career guidance and assessments as something that they wished they had been given before college to help them identify their major. All of the students in this group agreed that having a clearly defined career goal or major would help them be motivated to do well and stay in school. One student who mentioned that he was not motivated about college thought he would be if he knew what his career interests were.

Students from Group 2 also reported family friends as significant influences in their choice of a major. One mentioned that his job shadowing experience was the determining influence. The career guidance activities that were not provided that they wished they had been given included interest and aptitude assessments, a careers class, job shadowing, and individualized career counseling. All of these students also agreed that having a clearly defined career goal or major would help them be motivated to do well and stay in school.

Interviewees from Group 3 all expressed that the career guidance activities they experienced were very useful to them in developing their interests and career choices. The focus on careers started them thinking about what they wanted to do with their lives and what choices they should make in order to pursue a specific career. One student who explained that he already knew what his interests were stated that the career guidance activities reinforced his decision and commitment. The personal one-on-one experience of the individualized career counseling was mentioned several times as one of the most important activities provided. One student explained that sitting down with a professional psychologist for 45 minutes to an hour to discuss how test results applied to his personality and career direction made the idea of choosing a career meaningful and relevant. Several students expressed their surprise at how accurate the MBTI was regarding their personality traits. For students in this group, the major influences in choosing a major appeared to be based on interests, aptitudes, and careful consideration as opposed to a whimsical choice based on pure feeling as seen with many of the Group 1 interviewees.

Research Question 3

To what extent do students perceive these pre-college career guidance experiences as beneficial? This was answered solely through student interviews of individuals from Groups 1, 2, and 3 mentioned above. The students from Group 1 all mentioned that they wished they had been given some career guidance activities in secondary school. Two of them identified individual career counseling and two of them wished assessments would have been provided. One also mentioned he wished he had been able to participate in job shadowing.

The responses from those in Group 3 were all in agreement that the extensive career guidance experiences were very helpful in the development of their thinking about careers and the choice of their major. Two of the interviewees especially liked the MBTI and the individualized counseling that explained how the results applied to their personality and the implications that had for their career possibilities. One interviewee explained that she was amazed at how accurate the test was about her personality and the way she thinks. The careers class was only mentioned by one interviewee who stated that she initially wondered why it was a required class. She thought that as a high school freshman, it was way too early to begin thinking about her career interests. She later stated that having the class helped her focus on the concept of choosing a career. She said, "Without the class, I probably would not have thought about it throughout high school." All of the students in this group were supportive of the idea that having a career choice helps them to be motivated about their performance and staying in school. One of the common themes that resulted from student interviews was that those with extensive

career guidance based their choices on well-grounded factors relevant to them such as their aptitudes interests or abilities.

Research Question 4

What is the impact of pre-college career guidance experiences on student persistence and performance? Student persistence was addressed through correlation analysis between the composite career guidance score and enrollment from one semester to the next and from freshman year to sophomore year. Student performance was assessed through the use of a one-way analysis of variance (ANOVA) to explore the differences in grade point averages of the three levels of pre-college career guidance experiences. The MAP Works survey yielded 491 responses on the career guidance predictor variables along with data for first and second semester retention and first and second semester GPA scores. Analysis was done using the SPSS software version 18. Table 6 shows coding data for the variables of the survey: cumulative undergraduate GPA (CumUGPA), year 2 enrolled (ReturnFall), career guidance group (OQ6Group), composite career guidance score (OQ6tot), work experience (OQ5a), career counseling (OQ4a), assessments (OQ3a), job shadowing (OQ2a), and careers class (OQ1a).

Performance

Bivariate Pearson correlation coefficients were computed among the 9 career guidance scales to get a general idea of the relationships in the data. Samples sizes with numbers in excess of 400 are considered significant at the .01 level for r values of .100 or greater (Sprinthall, 2007, p. 605). The results of the correlation analysis presented in Table 8 shows 5 correlations with GPA (CumUGGPA) were found to be significant. Returning in the fall with a correlation value of .359, $p = .000$; Career Guidance Group

with a correlation value of .119, $p = .008$; Composite Career Guidance (OQ6tot) had a correlation value of .128, $p = .004$; Work Experience with a correlation value of .155, $p = .001$; and Assessments with a correlation value of .148, $p = .001$. The only significant correlation with Fall Enrollment (EnrollFall) was GPA and Assessments .101, $p = .025$. These correlations are provided in Table 7. The data was also analyzed by ANOVA for the effects of Gender and Race with no significant correlations for Gender. There was a significant relationship for Race with GPA, but this had no impact on the Career Guidance Variables.

Table 7*Correlations*

		CumUGGPA	EnrollFall
CumUGGPA	Pearson Correlation	1	.359**
	Sig. (2-tailed)		.000
EnrollFall	Pearson Correlation	.359**	1
	Sig. (2-tailed)	.000	
CG Group	Pearson Correlation	.119**	.045
	Sig. (2-tailed)	.008	.316
Composite CG Score	Pearson Correlation	.128**	.029
	Sig. (2-tailed)	.004	.521
Work Experience	Pearson Correlation	.155**	.034
	Sig. (2-tailed)	.001	.457
Career Counseling	Pearson Correlation	.016	-.028
	Sig. (2-tailed)	.724	.535
Assessments	Pearson Correlation	.148**	.101*
	Sig. (2-tailed)	.001	.025
Job Shadowing	Pearson Correlation	.042	.011
	Sig. (2-tailed)	.348	.810
Careers Class	Pearson Correlation	.017	-.016
	Sig. (2-tailed)	.702	.727
Major	Pearson Correlation	-.071	.021
	Sig. (2-tailed)	.118	.638

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

The relationship between the Career Guidance Composite Score and GPA is further represented in a scatter plot. This reveals the positive linear relationship between these two variables, see Figure 7.

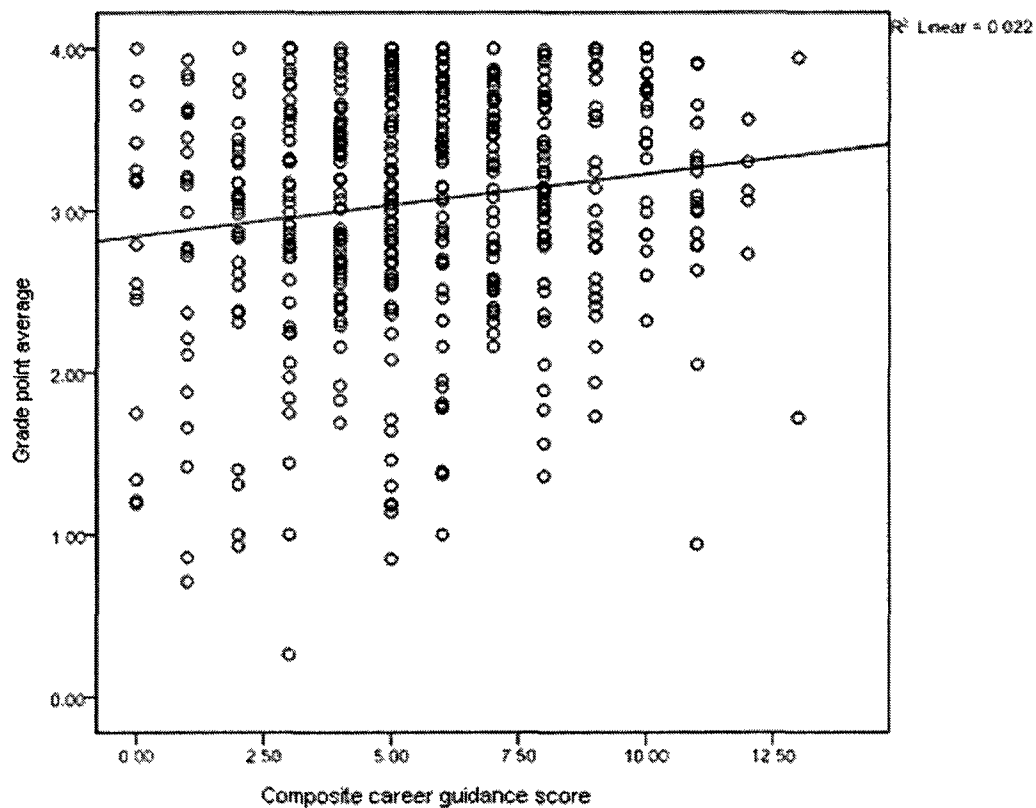


Figure 7. Scatter Plot for GPA with Composite Career Guidance Score

In addition to the Pearson correlation coefficients, ANOVA was conducted to evaluate the differences between grade point average and the levels of pre-college career guidance experiences. The independent variable, Career guidance Group (OQ6Group), was divided into three groups: Group 1, with low levels of career guidance, Group 2, with moderate levels of career guidance, and Group 3, high levels of career guidance. The

dependent variable was Cumulative Grade Point Average. The ANOVA showed a significant relationship between Groups and GPA, $F(2,488) = 4.55, p=.011$. The strength of the relationship between group 1 and group 2 as reflected by Coen's d effect size yields a value of .250 which is between a medium and small effect.

Post-hoc comparisons were done with the use of the Bonferroni method indicating a significant difference in the grade point means between those with low composite career guidance scores (Group 1) and with those who had high composite career guidance scores (Group 3). This also showed a significant difference between Group 1 and Group 2, but there was no significance difference in the grade point means between Group 2 and Group 3. The mean differences and significance is reflected in Table 8.

Table 8

Post Hoc Multiple Comparisons

CumUGGPA Bonferroni						
(I) Group	(J) Group	Mean	Std. Error	Sig.	95% Confidence Interval	
		Difference (I-J)			Lower Bound	Upper Bound
1	2	-.225*	.0837	.022	-.426	-.024
	3	-.257*	.0960	.023	-.488	-.026
2	1	.225*	.0837	.022	.024	.426
	3	-.032	.0828	1.000	-.231	.167
3	1	.257*	.0960	.023	.026	.488
	2	.032	.0828	1.000	-.167	.231

Based on observed means.

The error term is Mean Square(Error) = .567.

*. The mean difference is significant at the 0.05 level.

An ANOVA was also conducted to evaluate the differences in grade point averages for the variables work experience and assessments. Work experience showed a

significant difference between those with no work experience and those with 480 hours or more, $F(3, 485) = 4.89, p = .002$, with an effect size .447 which is a medium effect size. The differences between levels of guidance assessments was also significant, $F(2, 488) = 5.50, p = .004$, and produced an effect size of .384 between those with no assessments and those with both paper pencil and on-line.

Persistence

Persistence was measured through student registration for the second year of attendance or Year 2 enrolled as reflected in the field (EnrollFall). The relationship of the career guidance variables: composite career guidance score, the group, Assessments, and Major (major) with the Year 2 enrolled variable was measured through ANOVA. None of the differences revealed significance at $p = .05$ or better. These results are shown in Table 9.

Table 9
Tests of Between-Subjects Effects
Dependent Variable: year 2 enrolled

Source Variables	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	56.385 ^a	57	.989	1.227	.135
Intercept	172.997	1	172.997	214.621	.000
Career guidance group	.000	0	.	.	.
Composite career guidance score	13.565	11	1.233	1.530	.118
Assessments	.775	2	.387	.480	.619
Major	.006	1	.006	.008	.930
C G group * Composite C G score	.000	0	.	.	.
C G group * Assessments	.000	0	.	.	.
C G group * major	.000	0	.	.	.
Composite C G score * OQ3a	12.060	15	.804	.997	.457
Composite C G score * major	8.994	8	1.124	1.395	.197
Assessments * major	.232	2	.116	.144	.866

a. R Squared = .139 (Adjusted R Squared = .026)
Note: CG = Career Guidance

Table 9 (continued)
Tests of Between-Subjects Effects
Dependent Variable: Year 2 Enrolled

Source Variables	Type III Sum of Squares	df	Mean Square	F	Sig.
Assessments					
C G group * Assessments * Major	.000	0	.	.	.
Composite C G score * OQ3a * major	4.842	7	.692	.858	.540
C G group * Composite C G score *	.000	0	.	.	.
Assessments * Major					
Error	349.024	433	.806		
Total	1392.000	491			

Note: CG – Career Guidance

Summary

The population of the study was first time freshmen students at Southern Adventist University. The sample consisted of the students who responded to the on-line MAP Works survey (N= 491) or 78% of the class. Respondents were primarily from SDA academies, 73%, with another 20% from public high schools with the remainder of the respondents were from home school, GED, other Christian schools, or were of unknown secondary background.

The findings for research question number one: (*What pre-college career guidance experiences were provided to the traditional college freshmen?*) indicate that out of the 16 academies of the Southern Union with curriculum for grades 9-12, only 4 provided 2 or more of the career guidance activities identified for observation in this study. Academy number 8, provided all 5 of the activities. Due to the fact that academy number 8 also showed the highest mean score for the composite career guidance score, it was identified as a site that demonstrates exemplary practices in career guidance.

In response to research question two: (*What types of pre-college career guidance experiences do traditional college freshmen report?*) only 15% of the students had a full semester or more of careers coursework; 21% had a job shadowing experience of a full day or more; 79% had some form of an interest or aptitude assessment; Only 23% had individualized career guidance counseling; and 46% of the students experienced 480 or more hours of work. Of the three Groups representing levels of career guidance experiences, 24% reported having little or no career guidance before college, Group 1; 50% reported having a moderate amount of career guidance, Group 2; and 26% reported having high levels of career guidance before college, Group 3.

The findings for research question three (*To what extent do students perceive these pre-college career guidance experiences as beneficial?*) reveal that students who had higher levels of career guidance (Group 3) all expressed appreciation for the experience and agreed that it was beneficial to them. Students who had little or no career guidance (Group 1) explained that they would have liked to have had more of these experiences to help prepare them for their choices in college. The students who experienced meaningful career guidance experiences described the results of these activities as having a positive effect on their career direction and most stated that it was a major influence on their choices in college. One trend in the interviews was that those with extensive career guidance based their career choices on issues relevant to who they were such as their interests, aptitudes, or abilities; conversely, those with little or no career guidance based their career choices on factors that were more whimsical, generally having little to do with their aptitudes and abilities.

The results for research question four: (*What is the impact of pre-college career guidance experiences on student persistence and performance?*) were analyzed through ANOVA which indicated significant differences between the group (OQ6Group) variable and GPA, $F(2,488) = 4.55, p = .011$, but the strength of the differences was weak with the career guidance accounting for only 1.8% of the variance of the dependent variable. There were no significant relationships between any of the career guidance variables and persistence. Comparisons of individual survey question with interview results verified the survey results with 88% accuracy.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter provides a summary of the study, presents conclusions from the findings, and makes recommendations for future research and practice. The summary will review the research problem, its need, and significance as well as provide an overview of the related literature, the population of the study, and methods and procedures used to procure and analyze the data. The section on conclusions will discuss the implications of the findings and finally, recommendations will be made for the uses of the study as well as ideas for future research on this topic.

Summary

Retention is a serious concern for all public and private colleges and universities because it has serious implications for the well being of both individual students and the institutions they attend. The problem of this study was to determine the impact of various career guidance experiences on student retention and performance at a small private university in the southeastern United States.

Students who complete a bachelors degree experience a substantial increase in income, lower unemployment rates, better overall health, increased volunteerism, and higher voter turnouts than those who do not earn the degree (Mertisosis, 2005; Carnervale & Desorchers, 2004; Choy, 2001; Kojaku & Nunez, 1998). These advantages need to be extended to as many individuals as possible. The drop out problem also has implications for institutions because it is cheaper for them to retain students than continually recruit new ones (Noel-Levits Group, 2006). Marketability of institutions is impacted by the drop out problem because higher retention rates are often viewed as indicators of college

effectiveness, thus promoting desirability (Astin, 1992, 1997; Wyman, 1997). Tinto (1988) as well as other retention theorists agree that motivation is an integral consideration when considering the drop out phenomenon. The present study was based on the idea that career guidance activities will help students identify a goal which, in turn, will have an impact on motivation as seen through performance and persistence.

Research Questions

Four research questions guided this study.

1. *What pre-college career guidance experiences were provided to the traditional college freshmen?* This question explores the various career guidance experiences the students had before coming to the university. This question was investigated in multiple venues. It was addressed through a questionnaire and interviews with students asking what experiences they had. A phone survey was made of secondary academies of the Southern Union asking what career guidance activities were being provided and on-site visits were made to an exemplary academy to observe and document the delivery of their comprehensive career guidance program.

2. *What types of pre-college career guidance experiences do traditional college freshmen report?* This was addressed through the on-line survey and student interviews.

3. *To what extent do students perceive these pre-college career guidance experiences as beneficial?* This question was answered through student interviews.

4. *What is the impact of pre-college career guidance experiences on student persistence and performance?* To answer this question the researcher developed survey questions for students on career guidance experiences which were compared with enrollment and college grade point average data.

The first three questions were addressed through a narrative study using interview, observations, and document reviews. The last question was addressed through a quantitative analysis of survey results with enrollment and academic performance records.

Significance of the Study

Retention has been a concern for colleges and universities for many years with research on the subject beginning in the 1970s. One of the prominent researchers in this field, Vincent Tinto, developed an explanatory, predictive model of the process that gave consideration to the idea of motivational attributes of individuals. He mentions specifically the value of career and educational goals as having a positive effect on retention.

There has been a scarcity of research on retention for small private universities over the past 25 years. Similar research to the present study indicate that students with identified career goals are much more likely to persist in tertiary education than those without career goals. Another study focused on career related variables on traditional college aged freshmen. It found that career-related variables did not account for significant variance in college student retention, but the sample of that study was comprised of individuals who were expected to have retention problems. Considering the lack of research directly linking career guidance activities with performance and retention, it is reasonable to assume that this study will make a worthy contribution to the research.

Limitations of the Study

This study is limited by the sample of the population of traditional aged college freshmen at a small private university. The fact that students attending a denominational university are a unique group with unique values and life goals as compared to the mainstream population somewhat limits the applications of the findings.

This study is also limited in that the institution has been aggressively pursuing an effort to address the freshman drop out problem. Beginning in 2008, it implemented a program to address the retention through a “First Year Experience” program with a required course of all first time freshmen for the purpose of addressing issues that lead to attrition from first to second year of college. Since that program began the retention rate improved from 69.3% to 72.5% during the first year (SAU, 2010-11). The retention rate has remained around 72% ever since. The main factors that had an impact on retention seem to have been addressed through this program. This may offset the career guidance factors of this study.

The performance component of the study may also be effected in that the overall grade point average for students at the site for this study appears to be higher than the averages seen at similar colleges in the South. One source of national grade point information states that the average GPA for both public and private colleges in the south is approximately 2.84 (College Entrance Examination Board, 2000) where the average GPA of students in this study was 2.99.

Population

The population of the study is comprised of traditional college freshmen who attend a small private university located in Tennessee. The University has a total

undergraduate population of approximately 2,000 students. The majority of the traditional freshmen students came from SDA academies within the Southern Union, although some are from public high schools, some from home school environments, and some have earned GED in lieu of a secondary diploma. The sample for this study was comprised of students enrolled in the required freshman orientation course for first time freshmen during the fall of 2010. These freshmen were all between the ages of 18 and 22 years old. The sample consisted of 78% of the 2010-11 freshman class.

Instruments

A simple five question survey was developed by the researcher for this study. The survey was administered on-line. The survey was validated through the input from a panel of experts and was pilot tested with 30 students. Cronbach's Alpha was calculated for the survey resulting in a score of .629 using 10 variables of the questionnaire. Phone survey and interview questions were also used to determine the extent of career guidance services provided to students before coming to college.

Data collection

This study used a mixed methods approach using both quantitative and qualitative procedures. The five question survey was administered to the freshman class 2010 resulting in 491 responses. Twelve students were interviewed, half male and half female from each of three groups representing low, medium, and high levels of career guidance experiences before college. On site visits were made to document exemplary career guidance services. Qualitative data was collection through in-class observations, and document reviews. A phone survey was implemented to determine the extent career guidance activities were being delivered at the academies of the Southern Union.

Statistical procedures

Descriptive statistics were calculated for each of the career guidance variables which indicated that low levels of career guidance services were being provided through the majority of Southern Union academies. Bivariate correlations along with analysis of variance (ANOVA) were used to analyze the impact of the on-line career guidance variables with grade point average and continued enrollment. An inductive approach to thematic analysis was used to identify quantitative patterns and develop appropriate codes. Each of the types of data, phone survey and student interviews, were analyzed following the spiral process. Triangulation of the data, from observations, interviews, and document reviews reinforced consistency and validity of the results.

Conclusions

The findings of this study confirm the theories in the literature that having a goal is motivational for students. This was established through the student interviews and by the survey results that those with higher composite career guidance scores showed higher attainments as reflected by grade point averages in college. The findings also convey in a general sense that secondary schools and academies could do more for their students to provide career guidance and self knowledge. The following conclusions provide more detailed conclusions for each of the four research questions.

Research Question 1: *What pre-college career guidance experiences were provided to the traditional college freshmen?*

The phone survey to academies, survey responses from the freshmen, and student interviews all confirmed that the overall efforts by academies in the Southern Union are minimal in terms of career guidance. There were a few isolated examples of good career

guidance practices for students, but for the most part career guidance services are not being addressed in any organized or comprehensive manner. Out of the 16 academies in the Southern Union, only four fully implemented two or more career guidance activities and only one academy had a comprehensive program that spanned multiple grades for all students.

Research Question 2: *What types of pre-college career guidance experiences do traditional college freshmen report?*

For students in the 2010 – 2011 freshman class, only 15% had a full semester class on careers and only 21% experienced job shadowing for at least a day. Of those who participated in the survey, 79%, had some form of assessment, but very few, 4% , had extensive one-on-one career counseling to explain the meaning of assessments or what specific career options may be appropriate to them as individuals. Almost half of the students, 46%, experienced a substantial amount of work, but only two academies reported a work program as an integral component of the curriculum for all students.

The results of the on-line survey confirmed the information gathered from the phone survey to academies. The majority of the students had but few career guidance experiences. Some students went out on their own to get relevant career development experiences because the secondary schools were not providing them.

Research Question 3: *To what extent do students perceive these pre-college career guidance experiences as beneficial?*

Student interviews revealed that those who were offered high levels of career guidance appreciated the experience and expressed that it was useful to them in developing a career direction. Each of the career guidance variables identified in this study were commented

on in a positive manner by students who experienced them. One of the common themes that resulted from student interviews was that those with extensive career guidance were confident that the basis for their choice was well grounded in their own aptitudes interests and abilities. All interviewees agreed that having a career goal would be an incentive for them to stay in school and to do well while there. Those students who had little or no career guidance experiences stated that they wished that they had been given more opportunities to learn of what was available and what career options were appropriate for them as individuals.

The majority of the interviewees stated that they received less career guidance than they would have liked. It is important for students to have a clear understanding of their personality traits as well as strengths and weaknesses if they are to make intelligent decisions about their future. Career guidance assessments, individualized counseling, and knowledge of career options are essential elements for those decisions. Unfortunately, most of the students of this population are not getting these experiences.

One of the interviewees expressed her perception about career development. She said that picking one's career is something that you do in college. In essence, what she and others like her are saying is that you don't need to consider your career until you get to college. That may be what many students do, but it constitutes a serious waste of time and money when the classes taken are not appropriate for the student's interests or aptitudes. When a student comes to college, the choice of a major should have more substance to it than the "Eeny, meeny, miny, moe", approach that one interviewee described as his experience.

Research Question 4: *What is the impact of pre-college career guidance experiences on student persistence and performance?*

Only two of the career guidance variables identified in the survey, assessments and work experience, showed significant correlations to grade point average. Composite scores for the career guidance variables were calculated and the sample was divided into three groups, the first group who received minimal pre-college career guidance, the second group with a moderate amount, and a third group that had high levels of pre-college career guidance. The statistical analysis through ANOVA revealed a significant differences between high levels of career guidance and grade point average with a medium to small effect size.

Work experience made an obvious impact on student performance. The differences in grade point averages between those with higher amounts of work and those with none was significant with a medium effect size which has implications regarding maturity and or motivation that comes from participation in paid work experience.

There were also significant differences in grade point average between students who had both paper pencil and on-line assessments compared to those with none. The strength of the effect size of these differences was medium.

The findings of this study show that none of the identified career guidance variables made any significant impact on persistence. The value of pre-college career guidance as a motivational factor for student success is consistent with the current college retention theory, but the positive outcomes may take longer than one year of college to

become evident. Other beneficial factors of pre-college career guidance may become evident in future research.

Recommendations

Academies and secondary schools

Pursuing a career is a fundamental reality for most individuals. A young person will benefit from the knowledge of available options for training and employment as well as information about how their unique talents and aptitudes can be integrated into specific career options. Hopefully, decision makers in secondary education will recognize that this practical component of the education experience is not being adequately addressed.

It would be valuable to students if secondary schools were to adopt a comprehensive model of career guidance. The optimum model should include a variety of career development experiences as well as inclusive of all students. The model should address most, if not all, of the variables identified in this study, but especially those that were found significant in the present study e.g. assessments and work experience. All of the beneficial factors of good career guidance may not yet be clearly identified, but preparing students to make good choices for the realities they face should be a high priority. A good model for career guidance may include at least the following.

1. Coursework that explains the specific details of various careers including: the work environment, daily activities of workers in that field, job qualifications, salary, and lifestyle.
2. Job shadowing experiences to provide students with the opportunity to see the daily activities and routine of workers in that field. These experiences should be for a period of several days for a more comprehensive picture of the scope of work.

3. Assessments of student aptitude, interests, and or abilities enabling the student to develop a clear understanding of their personal traits. It is vital for a person to have this understanding before choosing a career.
4. Individualized career counseling to interpret assessments and to provide in-depth analysis of the appropriate career options.
5. Work experience is important because students need to have an opportunity to learn a practical work ethic as well as an understanding of the expectations of employers.

Future research

The long term benefits of pre-college career guidance may not be fully realized during the first year of college, but may take more time to become evident and may include the variables of this study along with others. Therefore, future research on this topic may include the following considerations.

1. Identification of additional variable i.e. how often students change majors, years to complete a degree, or overall satisfaction with the educational experience.
2. Consideration of a longer time frame for the effects of pre-college career guidance to be realized.
3. Longitudinal studies that follow a specific cohort over a five or six years may clarify the impact of career guidance variables.

It would be valuable to discover why secondary schools are not inclined to pursue rigorous career guidance programs for their students. The possibilities may include problems of human resources, expense, or other priorities that are deemed more important. It is also possible that those in secondary school leadership do not realize the

long range implications for students who are not well prepared to make choices about their future.

This study discovered an academy that was making a determined effort to provide a comprehensive career guidance program. Research on the impact of such exemplary programs may provide insights into long range effects and identify factors that have not yet been considered. Effectiveness of the mode of delivery for various career guidance activities may also be a worthwhile to consider. The methods used in the delivery of the curriculum often makes a large difference in how well students assimilate the relevant information.

The setting for this study was a small private university. It may be worthwhile for this research to be replicated in a different setting. The dynamics in a large public institution may be drastically different.

Attrition rates are high at our colleges and universities nationwide. Therefore, it is important for us to identify factors that can help students develop well advised decisions regarding their future. This study has shown that career guidance factors have a small, but significant, impact on student performance. Hopefully, future research will reveal other long range implications.

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Appendix A

Pre-College Career Guidance & Retention**Student Survey Questions**

Survey Information:

This survey was added to the MAP-Works on-line survey given to freshmen in October of 2010. All the responses to the questions were coded in the data file as follows: A=1, B=2, C=3, and D=4.

Survey Questions

1: Before you came to college, did you have any **career exploration** activities or coursework? (Detailed information and or activities that help you learn about careers and what people do who work in them.)

Select the appropriate amount of time your **career exploration** activities or courses lasted:

- A. I did not have any Career Exploration activities or classes
- B. 1 Week or less
- C. 2 to 4 Weeks
- D. A full semester or more

2: Did you ever participate in a **Job Shadowing** activity. (Job Shadowing means an activity where you followed/shadowed someone in a job so you could understand what their job was like.)

How long was your **job shadowing** activity?

- A. I did not participate in Job shadowing
- B. One or two hours
- C. Half of a day
- D. One or more full days

3. Before coming to college, had you ever taken an **aptitude, personality, or interest assessment** that was designed to help you understand more about your career options?

What was the format of your career assessment ?

- A. I did not have any type of assessment to understand career options
- B. Paper pencil
- C. On-line
- D. I had both paper-pencil and on-line assessments

4. Did you ever have **individualized career guidance counseling**?

(Individualized Career Guidance Counseling provides you with one-on-one discussion about career choices and options that may be appropriate for you.)

What was the duration of your **individualized career guidance counseling**?

- A. I never had any Career Guidance Counseling
- B. One session between 15 min to 30 min
- C. One session between 30 min and 1 hour
- D. Multiple sessions for an hour or more

5. Did you ever **work for pay**, for someone other than your family or friends, before coming to college?

Approximately how much **work for pay** (for yourself or for a business) did you do before coming to college? (Multiply the approximate number of hours per week by the approximate number of weeks you have worked.)

- A. I did not work for pay
- B. I worked between 10 and 159 hours total
- C. I worked between 160 and 480 hours total
- D. I worked more than 480 hours total

Appendix B

Pre-College Career Guidance & Retention**Observation Procedures*****Observation Guidelines***

A total of 5-6 classroom observations will be made between the two academies, Collegedale Academy or Georgia Cumberland Academy. The instructor of the class or guidance counselor will inform the students that the class is being observed. Arrangements will be made in advance for the observation and the researcher will remind the instructor of the observation through an e-mail the day before the observation.

The researcher will arrive 15 minutes prior to the scheduled class time and observation will include this pre-class period. The researcher will choose a seat in the back of the room that will still allow for good visual and auditory observation of the proceedings.

The purpose of the classroom observations is to assess the type and quality of information provided to the students regarding career information and individual choices. The attitude of the instructor towards the subject matter and the type and quality of responses to questions are also important in determining the quality of experience the students get from the experience.

Pre-class observations	Notes
1. Setting of class or meeting <ul style="list-style-type: none"> a. Clean and well lit b. Comfortable desks or chairs for students c. Convenient arrangement of furniture d. Room temperature appropriate e. Distractions: outside noise, events, etc 	
2. Faculty member is on time	
3. General demeanor of faculty member <ul style="list-style-type: none"> a. Appears unstressed, prepared, pleasant, or stressed, hurried etc. 	
4. Appearance of faculty member <ul style="list-style-type: none"> a. Clean, neat, appropriate 	
5. Interaction with students <ul style="list-style-type: none"> a. Warm and friendly or otherwise b. Congenial or gruff or abrupt 	

c. Conversation topics (before class)	
6. Room conditions a. Equipment (white or black boards, projectors, other equipment.) Clean, neat, temperature	
During class	Notes
1. Main topic for the day was?	
2. Presentation a. Clear concise, logical b. Presented interestingly or otherwise c. Appropriate to students	
3. Student engagement a. Students participated in discussion b. Students initiated their own questions c. Students seemed interested	
4. Class management a. Started smoothly and on time b. Interruptions c. Order in the room or noisy chaotic	
5. Material a. Directly related to careers b. Connected to students in some personal way	
6. Assignments a. Clear and understandable b. Related to subject matter	
Conclusion of Class	Notes
1. Ending early, on time, or late	
2. Questions from students on material	
3. Faculty member in a hurry to leave or taking time for students that may have questions	
4. Conversations or comments with students	
5. Parting comments	

At conclusion be sure and thank instructor and anyone else for their assistance.

Appendix C
Pre-College Career Guidance & Retention

Sample Correspondence

Introductory Letter to Administrator

Dear (Administrator),

I appreciate the time you gave on the phone on XXXX and your willingness to have your school participate in this study on career guidance and college persistence. I am making arrangements to visit as agreed in the phone conversation.

I just want to reassure you that all information regarding individuals and your specific school will be kept confidential in the findings of this study in accordance with the approval by the human subjects committee at Old Dominion University for this research project.

Sincerely,

Ray Carson
Principal Investigator
Associate Professor, Technology

Appointment Confirmation

Dear (name),

Thank you for agreeing to allow me to observe your career guidance class on *(Date in 2010)*. I will come about a half hour early so that I can find the classroom and get settled before class. If you have any questions, please let me know.

I just want to reassure you that all information regarding individuals and your specific school will be kept confidential in the findings of this study in accordance with the approval by the human subjects committee at Old Dominion University for this research project.

Sincerely,

Ray Carson
Principal Investigator
Associate Professor, Technology

Follow-up – Thank You Letter

Dear Instructor (use actual name),

Thank you for allowing me to visit your classroom. This contribution is a great help to the research project. If you would like to see the results of the study, please let me know and I will send them to you.

Sincerely,

Ray Carson

Principal Investigator

Associate Professor, Technology

Interview Correspondence

Introductory E-mail

Dear Participant (*use actual name*),

I spoke to you on the phone last week. Thank you for agreeing to participate in the interview on pre-college career guidance. Attached is a copy of the Informed Consent form that I will ask you to sign when we meet for the interview. I will call you within the next few days to set up a time for the interview. The interview should not take longer than one hour.

Sincerely,

Ray Carson

Principal Investigator
Associate Professor, Technology

Appointment Confirmation

Dear participant, (*use actual name*) I spoke to you on (*Day*) about an interview regarding your pre-college career guidance experiences at (*school name*). Thank you for agreeing to participate. Attached is a copy of the Informed Consent form that I will ask you to sign when we meet for the interview. I will have a copy of the consent form printed when you arrive. The interview should not take longer than forty five minutes to one hour.

See you at the library at (*TIME*) on (*DATE*).

Sincerely,

Ray Carson

Principal Investigator
Associate Professor, Technology

Follow-up – Thank You E-mail

Dear Participant (use actual name),

Thank you for participating in our Pre-College Career Guidance Interview. Your input is valuable to us. If you would like to see results of the research, please let me know and I will be glad to e-mail results to you.

Sincerely,

Roy Carson

Principal Investigator
Associate Professor, Technology

Appendix D

Pre-College Career Guidance & Retention**Interview Procedures**

Call potential participants two weeks in advance of first interviews to identify at least three participants. Follow up with an e-mail confirming their intention to participate with informed consent form attached. Call to set the meeting time and place. Send an e-mail confirming appointment.

For the interview; meet the student, introduce yourself, and establish rapport.

"The University would like to know more about your pre-college career guidance experiences. I would like to ask you some questions to find out about what your experience was like and how you felt about it. Have you had a chance to read the informed consent form? Would you please sign it for me before we begin?"

"I would like to tape record our conversation if that is alright with you, so that I will have an accurate record. Our conversation will be confidential. I will not use your name in any discussions or in any writings related to the research. Only group data will be reported. Is that okay?"

Interview Questions

Question 1: **"Describe career guidance courses or activities from your academy that you experienced"**

Topics to be used for probing questions to use if participant cannot think of the names of courses or activities:

Material on careers or discovering your interests

- Individual career counseling
- Interest or aptitude assessments
- A presentation by someone on careers or choosing a career

Question 2: **"Explain some of the details about what material was covered and what activities were involved."**

Topics to be used for probing questions to use if participant cannot describe any of the activities:

- Career interest assessments
- Job shadowing activities

- Presentations on careers or value of choosing a career
- Number of class periods or weeks dedicated to career information
- Reports or assignments

Question 3: “What activity or experience did you find the most fun or interesting?”

Topics to be used for probing questions to use if participant cannot describe anything fun or interesting.

- By yourself
- With others
- In class
- Off campus

Question 4: “What activity or experience did you find the least fun or interesting?”

Topics to be used for probing questions to use if participant cannot describe anything boring or uninteresting:

- By yourself
- With others
- In class
- Off campus

Question 5: “What insights into your values and interests did the experience give you?”

Topics to be used for probing questions to use if participants cannot describe any of their values or interests regarding anything:

- Meaningful to you
- Hobby related
- You have previously done
- You would like doing
- You know you don’t like

Question 6: “How did you benefit from the experience?”

Topics to be used for probing questions to use if participants cannot describe any benefits they received regarding something:

- You like or dislike
- You would like to know more about
- You learned about specific careers
- About the daily life of someone in a career
- Related to a new skill or talent
- You feel more confident about a career choice

Question 7: **“Please identify specific reasons that you did not benefit from the experience as much as you should have.”**

Topics to be used for probing questions to use if participant cannot describe any obstacles to receiving benefits:

- Not enough information
- Not enough time
- Not enough personal attention
- Distractions
- Breadth of course too narrow

Question 8: **“How did the experience shape your choices on a major or career?”**

Topics to be used for probing questions to use if participant cannot describe the impact of the activity or course on their choices:

- Have you chosen a career or major
- Did the career guidance activity play any role in that choice
- Did it help or hinder your choice or non-choice

Question 9: **“In your personal experience, who or what is the most significant influence on your choosing a college major or career?”**

Topics to be used for probing questions to use if participant cannot identify main influence in choosing or not choosing:

- Family
- Peers
- Career information
- Knowledge of self

Question 10: **“Do you feel that any of your peers from the academy may not have been mature enough to benefit from the career exploration class or related activities?”**

Topics to be used for probing questions to use if participant cannot identify main influence in choosing or not choosing:

- Personal experience of participant

Question 11: **“What suggestions do you have to make the career guidance activities at the academy more meaningful or helpful to individuals like you?”**

Topics to be used for probing questions to use if participant cannot identify issues to make the course or activity more meaningful:

- More time
- Curriculum
- Different assignments
- Personal counseling

Question 12: “Did you have any experiences that guided your career development that were outside of the school setting or curriculum?”

Topics to be used for probing questions to use if participant cannot identify issues to make the course or activity more meaningful:

- Working
- Family or parental influence
- Peer influences

Question 13: “Do you think your guidance experiences will improve your academic performance or help you stay in college?”

Topics to be used for probing questions to use if participant cannot identify issues to make the course or activity more meaningful:

- Help you with achieving a goal
- Help you be more determined
- Specific motivation

Question 14: “Is there anything of significance to your career guidance experience that we have not already discussed?”

“Thank you so much for your time. I appreciate your willingness to give of your time. Have a great school year.”

Appendix E

Pre-College Career Guidance & Retention**Informed Consent Form**

Dear Participant,

The following information is provided for you to decide whether you wish to participate in A career guidance study. You should be aware that you are free to decide not to participate or to withdraw at any time without affecting your relationship with this department, the instructor, or the University. You must be 18 years old at the time of the interview.

The purpose of this study is to understand the quality of pre-college career guidance of students at this University. At this stage in the research, process will be generally defined as perceptions of the quality of career guidance activities that you experienced in secondary school.

Data will be collected from three sources - interviews of students, observations of presentations of career guidance from your secondary school, and documents and audio visual material from your secondary school. Data collection will involve interviews, field notes from observations, and copies and or notes on materials presented for career guidance activities.

Do not hesitate to ask any questions about the study either before participating or during the time that you are participating. We would be happy to share our findings with you after the research is completed. However, your name will not be associated with the research findings in any way, and your identity as a participant will be known only to the researchers.

There are no known risks and/or discomforts associated with this study. The expected benefits associated with your participation are the information about the experiences in learning qualitative research, the opportunity to participate in a qualitative research study, and co-authorship for those students who participate in the detailed analysis of the data. If submitted for publication, a byline will indicate the participation of all students in the class.

Please sign your consent with full knowledge of the nature and purpose of the procedures. A copy of this consent form will be provided for you to keep.

Signature of Participant

Date

Raymond Carson, Principal Investigator

Appendix F

Phone Survey to Southern Union Academies on Career Guidance

Name of Academy: _____ Date Surveyed: _____

Person spoken to: _____ Contact Information: _____

1. What things do you provide for students for career guidance?
2. Do you provide specific class activities or special courses for career guidance?

For how long. One week, two weeks, a semester?

A. Is this a required or optional component of their coursework?

B. If optional, how many students participate?

3. Do you provide Job shadowing activities for the students?

A. is that part of a class?

B. About how many students participate in it?

4. Do you provide any form of interest or aptitude assessment for your students?

A. Required or optional?

B. Names of assessments:

C. Approximately how many students participate?

5. Do you provide any individualized career counseling activities?

A. Who does it?

B. Required or optional?

C. Approximately how many students participate?

6. Do students participate in any type of organized work program with the school?

VIDA

Raymond D. Carson

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Education

Ph.D. Education (Occupational and Technical Studies); Old Dominion University; 2011

M.A. Secondary Education; Northern Arizona University; 1985

B.S. Industrial Arts Education; Northern Arizona University; 1979

Teaching Experience

Industrial Arts Instructor	
Washington Elementary District, Phoenix, AZ	1980 -1980
Vocational Instructor	
Whiteriver Unified District, Whiteriver, AZ	1980-1986
Vocational Director	
Whiteriver Unified District, Whiteriver, AZ	1986-1988
Self Employed	
Carson Consulting Inc., Show Low, AZ	1988-2002
Adjunct Faculty	
Southern Adventist University, Collegedale, TN	2003-2004
Faculty	
Southern Adventist University, Collegedale, TN	2003-Present

Professional Society Memberships

Phi Kappa Phi Honor Society	1979-Present
Iota Lambda Sigma	2009-Present
Association for Career and Technical Education	2008 - Present

Record of Authorship/Publishing

Carson, R.,D. (1993 February). The Big Sink. Plane & Pilot Carson, R.,D. (2009). Leadership and self deception by the Arbinger Institute. *Journal of Industrial Teacher Education*, 46(5), 132-134. Carson, R.,D. (2010). Practical skills for 21st-century students. *Journal of Adventist Education*, 72(4), 38-46.

Certifications

Arizona Basic Secondary Certificate, Major in Industrial Arts
Standard Vocational Certificates in Electronics, Machine Shop and Automotive Mechanics
Supervisor Certificate in Secondary Education
Private Pilot License – 2,300 logged hours PIC