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# Assessing Student Strengths: Academic Performance and Persistence of First-Time College Students at a Private Church-Affiliated College

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ASSESSING STUDENT STRENGTHS

ASSESSING STUDENT STRENGTHS:  
ACADEMIC PERFORMANCE AND PERSISTENCE OF  
FIRST-TIME COLLEGE STUDENTS AT A PRIVATE  
CHURCH-AFFILIATED COLLEGE

A Dissertation

Presented to the  
Faculty of The University of Sarasota

In Partial Fulfillment of  
The Requirements for the Degree of

Doctor of Education

By

Jeffrey S. Williamson

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Graduate School of the University of Sarasota  
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## Abstract

The research study sought to identify the significance or impact of strengths training received by first-time college students at a private, denominationally affiliated college that holds membership in the Council of Christian Colleges and Universities (CCCU) and to determine whether or not there were statistically significant differences in first semester outcomes between students who received formal feedback and training on their identified strengths and those who do not receive their strengths results or training.

First-time college students at Mount Vernon Nazarene College (MVNC) in Mount Vernon, Ohio completed the Gallup Strengths Finder (GSF) assessment as a part of the new student orientations in June and July, 2001, prior to their first semester of college enrollment. The GSF assessment identifies levels of strength in 34 trait areas from four general life themes, which are: relating, impacting, striving, and thinking. Specific individual strengths from among these life theme areas are identified by the GSF.

For the study, a group of 32 first-time college students at Mount Vernon Nazarene College served as the study group for the Fall of 2001. This group participated in three scheduled interactions including two classroom group-training sessions and an individual consultations with the researcher. This sequence of interaction between students and researcher occurred during the month of October 2001 their first semester of college enrollment at MVNC.

A control group of 40 different students were randomly selected by English class sections from the same pool of first-time enrollees at MVNC and did not receive GSF written results nor further strengths training or follow-up.



The first semester outcomes for each group (grade point average, hours earned, academic status, and continued enrollment) were tracked throughout the Fall 2001 semester to the beginning of the Spring 2002 semester.

Along with the GSF written evaluation and training the students, the researcher tracked and compared the first semester college outcomes for the study group and the control group. Outcomes for the study group and control group for the first semester were measured using t-tests for independent samples to evaluate student cumulative GPA's and hours earned, and a test of proportions was used to compare the fall-to-spring retention percentages for each group. The statistical analysis revealed that in both first semester grade point average (one-tailed p-score .02) and semester hours earned (one-tailed p-score .04), the students in the study group performed significantly better than the control group with an alpha level of .05 significance.

The null hypothesis was tested using a t-test for independent samples to determine whether or not there were statistically significant differences between those first-semester students who received strength results and training and those who did not receive written results or additional strengths training. The t-test for independent samples resulted in a .024 p-score comparing grade point averages, and a .041 p-score comparing semester hours earned. Both p-scores met the required .05 significance level, therefore the null hypothesis was rejected.

From among the students in the study and control groups, the percentage of fall-to-spring retention was measured for comparison. The study group participants returned from the Fall 2001 semester to the Spring 2002 semester at a 97% rate and the control group students returned at an 87% rate.

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This dissertation is dedicated  
in loving memory of  
Beverly J. (Hall) Williamson (1956-2001)  
Class co-valedictorian and  
female recipient of the  
Service above Self Award,  
Mount Vernon Nazarene College  
Class of 1978

## CHAPTER ONE: THE PROBLEM

### Introduction

Holland (1985) presented perspectives of college student outcomes from among a theoretical category known as human aggregate models. His theory as described by Pascarella and Terenzini (1991) was based on four assumptions. First, it was theorized that individuals could be categorized into theoretical groups by personality. Second, is the expectation that there are model environments that correspond with each personality. Third, was the premise that people will seek out environments that allow them to develop their skills, strengths, and values. Finally, is that “the interaction of personality and environment determines behavior” (p. 40).

With this theory which parallels the theoretical assumptions of the proposed study, the writer will seek to determine the degree to which first-time college students at a private, four-year, religiously affiliated college persist to their second semester in correlation to whether or not they receive training on their specific, identified personal strengths and traits as measured by the Gallup Strengths Finder® inventory.

### Problem statement

Few research studies have focused on the trends of retention or student persistence in institutions with membership in the Council of Christian Colleges and Universities (CCCU). Further, identification of the impact of training on individual student strengths and traits has not been specifically linked with retention outcomes for new students at CCCU institutions. The body of research literature on student persistence in college would benefit from a focused study pairing specific training on identified student strengths with enrollment and academic performance outcomes for first-time

college students at a private, denominationally affiliated, four-year college with CCCU membership.

The following sections of this chapter will provide information on the background of the problem, review of related literature, purpose of the study, research questions and hypotheses, limitations of the study, definitions, and the importance of the study.

### Problem background

One hundred private colleges and universities in the United States are members of the CCCU and currently enroll 183,000 students (Jennifer Jukanovich, CCCU, personal communication, Feb. 13, 2001).

Member institutions in the CCCU have specific institutional traits and characteristics that vary from private, four-year colleges in general. For example, faculty members at CCCU institutions must sign a statement of faith supporting the guidelines and principles of the college. In addition, students at CCCU campuses are required to participate in weekly chapel services for the entire campus. While the CCCU institutions have specific identifiable traits and characteristics, few studies have sought to identify specific traits or strengths applications of first-time students who attend CCCU member colleges and universities and the possible connections between training in those strength areas, first-semester outcomes, and continued enrollment at those institutions.

National retention research studies outlined below in the literature review, have typically targeted profiles of college students based on a wider range of variables categorized by institutional type, such as public/private, two-year/four-year, residential/commuter campuses, or the level of admission selectivity held by the college or university. However, the body of research on the application and training of specific

student traits and characteristics and first-year outcomes and continued enrollment, particularly for those students in denominationally affiliated institutions of higher education, is minimal.

### Literature review

Studies and theoretical development on college student characteristics and persistence have developed particularly in the last three decades. Tinto (1975, 1987, 1993) has focused on the three stages through which students progress if they are to persist and graduate from college. The three stages of separation, transition, and incorporation impact the student's level of commitment to the institution. Astin and associates (1975) have conducted national research on college students since the early seventies. The Cooperative Institutional Research Program (CIRP) measures the impact and degree of change that results in students during college along with numerous demographic variables, beliefs, and values.

From subsequent studies (1984, 1993), Astin has determined that peers are “the single most potent source of influence” (1993, p. 398) on college students.

Bean (1980, 1983, 1990) emphasized an organizational model that primarily considered the role of external factors on student persistence rather than student traits or social integration. Two key behavioral factors of the Student Attrition Model related to persistence, are the levels of faculty contact and student involvement on campus. In addition to the foundational work of Tinto, Astin, and Bean, recent retention studies relate to variables (motivation and attributes), experiences, and interventions in different types of colleges and universities. The research of Bean (1980), Tinto and Astin provide a foundational framework for retention and student persistence studies to the present.



Rickson (1999) examined the relationship between student counseling interventions and the persistence of students to graduation. The coping resources of students in this study connect with a separate study the same year on levels of student educational distress and the college selection process (Rawson, Palmer, and Henderson, 1999).

Allen (1999) developed a “motivational construct” (p. 470) made of items from the College Student Inventory (CSI) by which he measured the likelihood of dropout for first-time college students. Morrison’s (1999) examination of student attributes and academic motivation revealed that students in the study sample group did possess “personal traits related to academic motivation which distinguishes them from their freshman peers” (p. 19). From these studies, it would seem to indicate that past performance in high school and ACT/SAT testing alone cannot be relied upon to adequately predict student persistence and performance in all colleges.

Murtaugh, Burns and Schuster (1999) developed a statistical model using high school GPA and SAT scores for a retention study at a large, Western State University. Contrary to the Morrison study above, the Murtaugh prediction study results correlated high school GPA and SAT scores significantly with actual performance and retention rates.

Rice and Darke (2000) tested two groups of students at the same university. One group consisted of those receiving academic scholarships and the other consisted of those receiving leadership scholarships at a large, urban university. Their results indicated that even though the academic scholarship group had higher incoming academic credentials (higher high school GPA and ACT scores) than the leadership scholars, the leadership

group retained 88% through the third year of college compared to 67% of the academic scholars group and no statistically significant differences on average grade point.

Cabrera, Nora, and Castaneda (1993) sought to integrate Tinto and Bean's foundational theories of student involvement and student attrition into a comprehensive theory of student persistence. Their findings were that four key factors impact persistence: 1) student intent to persist, 2) college grade point average, 3) commitment to the institution, and 4) encouragement from friends and family (p. 134).

Berger and Milem (1999) evaluated Tinto and Astin's theories on student departure during the first year of college. Like the Cabrera study noted above, institutional commitment was a significant variable in persistence. However, the variables of students being female, black or white, had a significant direct effect (statistically) on the level of institutional commitment. Perceptions of institutional support were also positively predicted on the basis of high school grade point average (p. 653).

Elkins, Braxton, and James (2000) discovered that for students at a moderately selective, mid-sized institution (8000) the separation stage appears to be more difficult for minority students. This finding affirmed Tinto's position that rejection of attitudes and values from past experiences "is central to the students negotiation of the separation process" involved with persisting in college (p.263).

The preceding sections have summarized and synthesized the initial literature related to historical and foundational theories of student persistence in college, interventions and student motivation, and studies predicting student retention or persistence of first-time students in college. The following sections of this chapter will

examine the purpose of the study, research questions/objectives and hypotheses, limitations, definitions, and importance of the study.

#### Purpose of the study

The researcher sought to measure the impact or benefits of training first-time college students at Mount Vernon Nazarene College (MVNC) on the results of a strengths assessment. The selected instrument for the study was the Gallup Strengths Finder® (GSF), developed and copyrighted by the Gallup Organization. For purposes of the research study, the student results of the GSF were issued to students in a group randomly selected from among the sections of Freshman Writing courses. The study groups consisted of those who agreed to participate in follow-up training on their specific strengths and talents in sessions to be conducted during the month of October 2001. These interactions and training sessions focused on assisting new students in understanding their individual strengths as identified by the GSF and how these strengths could be developed and utilized during their first semester of college at MVNC. The first two interactions were in a classroom setting that consisted of a one-hour session for each of the first two meetings, with the third interaction between student and researcher being an individual consultation on their identified strengths. The individual consultations typically lasted thirty to forty-five minutes per session.

The results from the study provide an initial research basis for considering further emphasis on student strengths by higher education professionals and faculty, in general. Specifically at CCCU member schools, such an approach to initial training for new college students and also for continuing college students could have significant impact. Such training, on identifying and developing individual student strengths, could have

meaningful impact on first-year college student outcomes and development and positively impact their continued enrollment to graduation.

Research question/objective and hypotheses

Research question: Do first-time college students, at a private, four-year, church-affiliated college holding membership in the CCCU, who receive specific individual results and training on the Strengths Finder®, perform better academically, and continue enrollment past the first semester more than those who do not receive Strengths results and further training?

Research objective: To determine whether or not first-time college students receiving assessment results and training on specific strengths will, in a statistically significant manner, achieve more acceptable academic performance (cumulative GPA at 2.0, 12 semester hours earned) than students who are not trained their first semester. Further, it was the objective of the researcher to determine whether study group students persist more than control group students, past their first semester at a private, four-year, church-affiliated institution holding membership in the CCCU.

By measuring the impact of first-time college students receiving results and training on their individual strengths through the use of the GSF instrument, specific strategies and support services were identified in hopes of increasing the likelihood of acceptable academic performance and persistence of future students at the college beyond the first semester of enrollment.

Directional hypothesis: There are statistically significant differences between those first-time students who receive assessment results and training on their identified strengths (as identified by the Gallup Strengths Finder), and those first-time students who

do not receive such information or training. The differences were expected to be evidenced by the degree to which first-time students in the study group achieved or did not achieve acceptable academic performance (2.0 minimum GPA, at least 12 hours earned), and continued enrollment to the second semester.

Null hypothesis: There are no statistically significant differences between those first-time students who receive results and training on their Strengths Finder® results, and those first-time students who do not. The lack of differences will be evidenced by the similarities of outcomes for first-time students in the study group and control group achievement of acceptable academic performance (2.0 minimum GPA, at least 12 hours earned), and continued enrollment to the second semester.

### Limitations

The following section will describe the study as it relates to limitations to be considered. Limitations to be considered were: aspects of institutional size and type, the sample group size and type, the sample being from the first year class of students at one institution, tracking those who withdraw during their first term and do not complete, and the extent to which college student strengths have been measured using the Gallup Strengths Finder® instrument.

First, institutional size and type could have impacted the general application of the research results to other kinds of colleges and universities. For example, Mount Vernon Nazarene College is a private, liberal arts, college with strong denominational affiliation with the Church of the Nazarene. The enrollment of MVNC for the Fall 2001 semester was 2,238 total students (MVNC Office of Institutional Research). The student body enrollment is predominantly traditional-age undergraduates (18-23) in bachelors

programs (1400+ students), while the remaining students (800+) are mostly adult students over age 23 in bachelors and graduate programs that are largely evening and weekend course formats. The students who participated in the study were traditional program, first-time college students at MVNC, most of who have just recently completed high school.

Given the fact that the study was conducted at a specific kind of private college, there could be questions of practical application and likely replication of results for other traditional program students who attend different kinds of institutions (two-year or four-year publics, or independent private colleges with no religious affiliation or history). However, because of the common traits of colleges and universities of similar size, culture, and mission in the Council of Christian Colleges and Universities the results for this study have meaningful application to the one hundred member institutions in North America, included in the CCCU.

Second, an additional limitation of the study was that the research results were from a smaller sample of students from a class of 321 first-year students at one institution rather than a larger sample of first-time students from several similar institutions. Such a study could be conducted in the future, comparing the results of the this study with a replication study at another CCCU institution or group of CCCU institutions.

Third, there was not be a clear method determined to evaluate any first-time students who completed the GSF and enrolled at MVNC for the Fall 2001 semester, but withdrew during the Fall term and left the institution prior to completion of the study. It was difficult to gather follow-up information once those students left the campus, or to determine whether they transferred to another institution or completely stopped attending

any college. The total number of first-time students traditionally leaving the college before completion of their first semester is less than ten from an average class of approximately 330-350. Since only one student from the control group withdrew during the term, and none from the sample/study group, the results were not significantly impacted by this variable. Further, if a number of first-time students were to have left the college during the first semester, a basic review of mid-term variables (mid-term grades) could have provided some meaningful insights, however the one student from the control group who withdrew, did so prior to the posting of midterm grades for the Fall semester.

Finally, a limitation of the study is that the body of research on use of the GSF with college students is minimal compared to other instruments that have been used in other studies (CIRP, Myers-Briggs Type Indicator). With the GSF instrument only being used in colleges since approximately the late-1990's, and that it was initially, and continues to be, used largely in management training with corporations and organizations the longitudinal impact of use in the collegiate setting is yet to be measured. Therefore, the historical background on the GSF, and predictability of outcomes with training college students is still somewhat unknown and is an emerging body of research literature to which this study will add.

### Definitions

Cohorts- are first-time college students who are entering the same institution at the same semester and year. Retention rates at colleges are typically measured in percentages of cohort groups that progress to subsequent semesters and eventually to graduation at that institution.

Gallup Strengths Finder (GSF)- the computerized, web-based survey instrument with 181 matched-pair questions, developed by the Gallup Organization. This instrument measures individual personal strengths in 34 different areas or life themes and provides a list of the five most dominant strengths for the respondent.

Life themes- from the Gallup Strengths Finder inventory, the results that are provided to respondents are grouped and identify individual strengths in four main areas: relating (ways we interact), thinking (ways we work), striving (ways we push for performance), and mind-sets (how we behave in various environments).

Persistence and/or persists-those students who are enrolled at a college for a given semester, who continue enrollment to a subsequent semester without an interruption in their enrollment as they progress toward graduation.

#### Importance of the study

There were several important factors to be reviewed, related to the study. The areas were: the potential impact of the study, the contribution to existing theory, application or generalizability, and the potential for bringing about change based on the results.

First, there was potential for the results of the study to make an impact on students in higher education, especially as it related to students at private, church-affiliated colleges and universities with CCCU membership, which was the setting for this study. In addition, the results should also be meaningful to institutions of higher education in general. For the one hundred member institutions in the CCCU, the MVNC project could be considered as an initial basis for consideration of a future strengths approach to advising, career guidance, major selection, leadership development, student goal setting



and planning that could perhaps contribute to improved student experience, academic performance, and retention rates leading to graduation.

Because the literature review revealed minimal research on student strengths and training, in general, besides their application to college student performance, there was clearly potential for contributing to existing theory. Such a study as this, that sought to compare the impact of receiving results and training on the student strengths compared to first semester college experiences and outcomes, could spur and support additional research studies in similar college and university settings with the potential for new program development in student support services areas such as career and life planning, leadership skills development, and academic advising.

The application of the research results from this study, to other settings in education and management of human resources are meaningful as it relates both to training, performance and individual outcomes. While this study analyzed results for first-time college students, such applications of individual strengths and life themes could be made in identifying strengths and potential of employees in the workplace. The benefits of a strengths approach to professional staff development and leadership training in the education and business sectors could have significant impacts on productivity, worker morale, and personal achievements, if used effectively. Further use of the strengths approach and training in higher education could be to develop advising and student services programs, by targeting strengths and their development, rather than a focus on deficiencies or academic shortcomings. Often course work for new college students is built on targeting the areas of lowest performance, based on high school

course grades and standardized test scores on the American College Test (ACT) or the Scholastic Aptitude Test (SAT) issued prior to college entry.

In the event that an organization, be it a college/university, a for-profit business or non-profit organization, established their training, educational, or advising programs using a strengths analysis instrument such as the Gallup Strengths Finder®, there is potential for bringing about positive and lasting change in that organization by investing in personal development and strengths discovery.

Students who focus on the application of their individual strengths and receive additional strengths training, in the college setting, appear to perform better than those who do not have access to the sequence of strengths feedback and training. The study intended to test this hypothesis with the sample group of first-year students at Mount Vernon Nazarene College.

### Summary

As previously described, the writer did, during the course of the research study, seek to determine the degree to which first-time college students at private, four-year, religious affiliated college persisted (or did not persist) to their second semester in relation to receiving results and training on their specific, identified personal strengths.

The identification and development of student strengths should enable educators and leaders to assess and respond to students or staff members needs in the future, by assessing and supporting the exploration and application of their individual strengths, gifts, and talents.

The previous sections provided information on the background and context of the problem, the problem statement, research questions and hypotheses, review of related

literature, and the methodologies for the study. Chapter Two will provide a full review of the related literature.

## CHAPTER TWO: REVIEW OF RELATED LITERATURE

The following literature review will focus on historical and foundational studies on the effect of college on first-time students. Second, the author will review studies related to student motivation, personal traits or strengths, and persistence from the first college semester to subsequent semesters. Third, will be an examination of student retention prediction models and studies. Finally, the writer will provide an overview of recent studies relating more specifically to retention and student experiences at church-affiliated, Christian colleges and universities.

### Historical/Foundational studies

Studies and theoretical development on college student characteristics and persistence have developed particularly in the last three decades. Spady (1970) developed a model of student retention using Durkheim's theory of suicide in making a parallel of those concepts with student integration into "the academic and social systems of the institution" (p. 57). The thesis of his research was that students who did not integrate into the academic and social systems of the campus would be more likely to dropout of college. Tinto's Theory of Student Departure (1975, 1987, 1993) then built upon the work of Spady, and focused on three stages that students must successfully navigate in order to persist and graduate from college. The three stages of separation, transition, and incorporation impact the student's level of commitment to the institution which determines whether the student becomes a dropout or a persister. The separation stage is when a student disassociates from their previous communities. Elkins, Braxton, and James (2000) commented on Tinto's theory and the separation stage, that "as students enter college, they are required to disassociate to some extent from membership in

communities of the past, such as families, friends, the local high school and local areas of residence” (p. 253).

The second stage in the Tinto model, is the transition phase of adjustment. Students who are adapting to initial changes in their environment and are developing an understanding of the new campus culture are moving toward healthy integration into academics, relationship, and the student body at-large. Finally, the third stage of incorporation is when students engage the new campus culture and community and become a functioning part of the college and are, therefore, more prone to persist to graduation rather than dropout.

Further, Tinto (1975) found that family background (social status, values, and expectations), individual attitudes (sex, race, ability), and pre-college preparations (GPA, academic and social attainments) all impact college performance, and therefore, persistence to graduation.

During a similar period of time (early seventies) to the present, Astin and associates (1975) have conducted an annual national research study known as the Cooperative Institutional Research Program (CIRP) which measures the impact of college and the degree of change that results in students during college on topics such as social, political positions, ethical decision making and choices, expected outcomes from their college experience, intended level of educational attainment, and others. Initial results of the Astin/CIRP research indicated that student involvement or a lack of involvement was a meaningful variable that combated or led to dropout. As a point of clarification, involvement was defined by Astin (1984) as “the amount of physical and psychological energy that the student devotes to the academic experience...it is not so

much what the individual thinks or feels but what the individual does, how he or she behaves, that defines and identifies involvement” (p. 297-298).

From subsequent studies Astin determined that peers are “the single most potent source of influence” (1993, p. 398) on college students and their continued enrollment or dropout decision. However, in contrast, Pace (1979) found that both the influence of the college environment, as perceived by the student, and the effort expended lead to student development.

Bean (1980, 1983, 1990) emphasized an organizational model that was initially used to analyze staff turnover in businesses. The Student Attrition Model was based on his assumption that staff turnover in a business organization and students leaving college would have similar decision making patterns and reasons. He found that the students stated intent to leave college during their period of enrollment actually had the greatest influence on their dropout decision. In regard to student persistence, Bean primarily considered the role of external factors rather than personal student traits or levels of social integration. Two key behavioral factors of the Student Attrition Model were the levels of student-to-faculty contact and student involvement on campus.

In these research results, Bean’s studies “provide evidence that student interactions with faculty and lack of student involvement on campus (due to time spent working away from campus) play important roles in the persistence process” (Berger & Milem, 1999).

In addition to the foundational work of Spady, Tinto, Astin, and Bean, recent retention studies relate to variables (motivation and attributes), experiences, and interventions in different kinds of colleges and universities. Several researchers have

considered possible connections between different variables and student retention and factors influencing enrollment and retention. For example, the availability of classes at convenient times for adult students in nontraditional undergraduate programs was found to be a key factor in their continued enrollment (Bean & Metzner, 1986). Their study evaluated numerous variables that have been researched more in traditional, residential campuses, but rarely with adult students over age 25 at campuses that are primarily commuter. Their study examined high school performance, ethnicity, gender, parents education, study skills and habits, academic advising, absenteeism, and other variables. Ultimately, Bean and Metzner determined that “the chief difference between the attrition process of traditional and nontraditional students is that nontraditional students are more affected by the external environment than by social integration variables affecting traditional student attrition” (p. 485).

Moore (1992) focused upon building on the strengths of human resources in a high school setting (grades 7-12). The students were evaluated initially using the Keirseley Temperament Sorter prior to intervention which targeted development of self-perceptions. The instrument was used again later in the study as a pre-test/post-test of students self-perceptions. Following the limited treatment and post-test, the results indicated that there was a 25% improvement of student scores on the instrument related to self-perception.

More recent studies on the challenges and changes that college students face has been synthesized from a period of years (1969-1990) by Pascarella and Terenzini (1991). Their significant work provided a complete overview of over twenty years of research in higher education on topics such as: college outcomes, theories of student change,

development of competencies, cognitive skills, psychosocial changes, attitudes, values, moral development, educational attainment, career choices, economic benefits and quality of life after college.

From the summarized results of this work, Pascarella and Terenzini state that aspects of college life that “foster student learning and development” are “small institutional size, a strong faculty emphasis on teaching and student development, attends college full-time, . . . resides on campus” and has frequent interaction with faculty and with peers outside the classroom (p. 150). This description describes institutions that are members of the Council of Christian Colleges and Universities (CCCU) which will be discussed later in this chapter.

Having provided an overview of the historical and foundational studies related to the research topic, the following section will review literature related to the concepts of student motivation, traits, and strengths, and their impact upon continued enrollment beyond the initial semester at a college or university.

#### Student motivation, personal traits and strengths

Edward C. Anderson (1998), Professor of Education at UCLA and Azusa Pacific University, has studied college student strengths extensively. He states that “one place to begin is to specify, identify, clarify, and develop a student’s strengths, gifts, and talents”. He adds that many so-called “motivational problems” for college students would be solved if institutions of higher education would assist students in identifying “specific strengths, gifts, and talents and then planning their college experience in a way that capitalizes on and builds their strengths”. The proposed research study seeks to supply



additional research data on this approach to college student performance, success, and persistence.

Student success in all specters of college life, and retention to graduation are closely related. Rickinson (1999) examined the relationship between student counseling interventions and the persistence of students to graduation. Utilizing a questionnaire given to 44 students identified as “high risk”, each student was invited to contact the counseling center of the college and 16 responded and were scheduled. Students in their last year of college were again surveyed as to levels of educational distress and it appeared that personal counseling was more beneficial to continuing students rather than first-time enrollees. Of the students who responded to the first year invitation to counseling support, all graduated within four or five years from that same institution. The coping resources of students in the Rickinson study connected in similar ways with levels of educational distress and the college selection process (Rawson, Palmer, and Henderson, 1999) and adaptation to college (Feenstra, Banyard, Rines, and Hopkins, 2001) as described below.

The Rawson study compared scores from self-reported results measuring coping resources and self-esteem between students at a small private college and a large state university. It was hypothesized that students selecting the small college would score lower on self-esteem and coping resources. This hypothesis was not supported statistically.

Feenstra and associates investigated family structure, conflict, and family and individual coping as it related to college adjustment. First-time college students were surveyed using a combination of instruments that measured these factors. The results

indicated that individual student coping ability was “significantly predicted by family coping and adaptation to college” (p. 111).

In a separate study, the link between student motivation and persistence was considered using four “constructs” (Allen, 1999, p. 470) which were compared with results from the College Student Inventory (CSI). The four constructs in the Allen study were: 1) motivational constructs, 2) student background factors, 3) academic performance (first year GPA), and 4) persistence in enrollment. It was found that motivation was not a significant impact on academic performance for racial subgroups, but had a significant effect on persistence for minorities as a larger group, but not for those identified as non-minorities.

Morrison’s (1999) examination of student attributes and academic motivation measured the performance of first-time college students at a private, comprehensive liberal arts college of 4,000 students. The students in the sample group were those assigned to a developmental program that were conditionally admitted and evaluated by the institution as “less academically capable” (p. 10). Using the College Student Inventory (CSI) as the test instrument, students were evaluated in the areas of academic motivation, social motivation, general coping, and receptivity to support services. Scores from the inventory indicated that the sample group did possess “personal traits related to academic motivation which distinguishes them from their freshman peers” (p. 19).

Banta and Kuh (1998) determined that “cognitive and affective development are inextricably intertwined and that curricular and out-of-class activities are not discrete, independent events” (p. 41). Specific personality traits identified on the Myers-Briggs Type Inventory (MBTI) through a study at Virginia Military Institute (VMI) were

correlated with students who were most at-risk of dropping out. Those students with groupings that included MBTI classifications as “introvert, sensing, and thinking” (IST) represented 80% of the early dropouts at VMI. In a previous, but related study, Kuh (1995) examined outside-of-class learning experiences associated with learning and personal development among college seniors from twelve different institutions. A team of researchers conducted interviews during the spring semester of the student’s final year. The researchers found that college has a number of benefits for those who persist. For example, “substantial gains in knowledge, autonomy, social maturation, and personal competence” were listed along with a variety of additional benefits. In summarizing the impact of college on these seniors Kuh stated that “the cumulative effect on these changes is the crystallization of a diverse set of attributes into a sense of identity marked by competence and confidence which enables a college-educated person to cope successfully with novel situations and problems” (p. 123).

In addition to historical/foundational studies, student motivation, traits, and strengths that have been discussed to this point, prediction models of student retention using statistical modeling and survey instruments will be considered in the following section of the literature review.

#### Retention prediction models and studies

Noel (1986) states that only 15% of departures from colleges and universities are comprised of involuntary departures (academic or social dismissals). With this in mind, it is clear that most students (85%) leave a selected college by choice and therefore there is great interest in identifying ways and means to predict or identify likely dropouts or stopouts in their initial semesters before departure occurs. Due to the increasing interest

in student retention, even in state legislatures, data and indicators of student persistence are regularly included in state and federal reporting data (McLaughlin, Brovosky, and McLaughlin, 1998).

Murtaugh, Burns and Schuster (1999) developed a statistical model for a retention study at a large, Western State University, to predict the retention of first-year enrollees from 1991 to 1996 primarily built upon high school grade point average (GPA) and Scholastic Aptitude Test (SAT) scores. Contrary to the Morrison study indicating that additional factors (beyond GPA and SAT) must be considered, the Murtaugh prediction study results using high school grade point average and SAT scores, correlated significantly with actual performance and retention rates of their students. It was also noted that participation in the new student orientation program at the university appeared to reduce the risk of dropout.

Rosenbaum (1998) examined the “no-penalty” or “college-for-all” belief that students in his study held toward anticipated college attainment. His findings were that many college-bound high school students believe that poor high school performance will not impact or prohibit their college degree attainment, while in fact, high school grades strongly predicted educational attainment as Murtaugh, Burns, and Schuster also found in their study.

Rice and Darke (2000) tracked the progress and outcomes for students receiving academic scholarships and a separate group of students receiving leadership scholarships at a large, urban university. Each group was profiled over a three year period of enrollment in terms of college grade point average, and continued enrollment to subsequent semesters. The results of grades compared using a t-test statistical analysis

revealed that no significant difference in performance existed between the two groups even though the academic scholarship group had higher incoming academic credentials (higher high school GPA and American College Testing (ACT) scores) than the leadership scholars. Further, the leadership group retained 88% cohort enrollment through the third year of college compared to 67% of the academic scholars cohort enrollment group. The college grade point average of the two groups revealed no significant differences even though the academic scholars group had higher high school grade point averages and standardized test scores.

Cabrera, Nora, and Castaneda (1993) sought to integrate Tinto and Bean's foundational theories of student involvement and student attrition into a comprehensive theory of student persistence. The attempt to integrate these two theories involved testing with a randomly selected group of traditional age (24 and under) first-year college students at a large, southern urban institution. The students were asked to complete a survey during the spring semester and the survey results were paired with student GPA at the end of the spring semester. Their findings were that four key factors impact student persistence: 1) student intent to persist, 2) college grade point average, 3) commitment to the institution, and 4) encouragement from friends and family (p. 134).

Berger and Milem (1999) evaluated Tinto and Astin's theories on student departure by issuing a sample group of students three different assessments during their first year of college at a highly selective, private research university in the Southeast. Data were gathered using the Cooperative Institutional Research Program (CIRP) student survey given at the beginning of the first semester, the Early Collegiate Experiences Survey (ECES) given in October of the initial term, and the Freshman Year

Survey (FYS) issued to the test group in March of the spring term. The combined analyses were used to identify seven sets of variables used in the study. Variables considered in the study were: 1) student background characteristics, 2) initial commitment, 3) mid-fall behavioral/involvement measures, 4) mid-fall perceptual measures, 5) mid-spring behavioral/involvement measures, 6) academic and social integration, and 7) subsequent commitment. Like the Cabrera study noted above, institutional commitment was identified as a significant variable in student persistence. However, the variables of students being female, black or white, had a significant direct effect (statistically) on the level of institutional commitment while the only significant indicator of less spring involvement was for those self-identified as “politically liberal”. Finally, involvement with faculty during the fall semester had a positive effect on institutional support, as did high school grade point average (p. 653).

Elkins, Braxton, and James (2000) discovered that for students at a moderately selective, mid-sized, public institution (enrollment of 8000) the separation stage (from among separation, transition, and incorporation) appears to be more difficult for minority students. The data for this study was collected at three junctures. First, was use of the CIRP data students provided at the beginning of their first semester of college. The second data collection point was at mid-semester when students in the test group were given the First Semester Collegiate Experiences Survey (FSCES). The final collection of data involved institutional data the university regularly collects from students. The finding that separation was the most difficult stage for certain student groups, affirmed Tinto’s position that rejection of past attitudes and values from past experiences “is

central to the students negotiation of the separation process” involved with persisting in college (p. 263).

The final segment of literature to be reviewed relates to studies conducted within and among private colleges in North America, and specifically those institutions which are church-related or denominationally affiliated Christian colleges holding membership in the Council of Christian Colleges and Universities (CCCU).

#### Church-affiliated/ Christian colleges and universities

While college enrollments grew nationally by four percent at public institutions of higher education, and five percent at private colleges during the period of 1990-1996, institutions among the one hundred colleges and universities who hold membership in the Council of Christian Colleges and Universities grew by twenty-four percent in the same period (Kleiner, 1999). With such vibrant growth on these campuses also comes the challenge to successfully train, retain and graduate a growing number of students who have enrolled on these campuses.

In order to identify ways and means to better train and retain students at church-affiliated, Christian colleges it is necessary to understand the context and environment in which these students function and exist. There are specific, identifiable differences between the church affiliated/Christian colleges and universities in the CCCU and other institutions of higher education. For example, CCCU member schools require a statement of faith from their faculty members and administrators, a publicly expressed Christian mission and “evidence of how faith is integrated with the institution's academic and student life programs” (2001, CCCU website). For example, required student chapels

each week are a component that CCCU member schools hold to as evidence of how faith is integrated into the institutional life of the college or university.

Harrington (1995) sought to identify the differences between students at three similar private, non-sectarian institutions and students at private, church affiliated, Christian colleges of similar size and type. The primary hypothesis was that the students would be similar regardless of institutional type. The results based on responses to the CIRP instrument, indicated many similarities but there were significant differences between students at these two types of institutions on issues with perceived moral connotations such as decisions about sexual activity, substance use (drugs and alcohol), and abortion.

Underwood, Maes, Alstadt, and Boivin (1996) conducted pre/post testing at entry to college and then upon graduation using an instrument called the Character Assessment Survey (CAS) to seek out what changes occurred in students at four-year Christian colleges during their undergraduate years. Participants in the study tended to experience “modest changes and a general trend toward a more liberal political and social posture” (p. 125). These results were used to evaluate specific changes in the students’ social attitudes, character traits, and liberal arts abilities for a four-year period at a CCCU member institution in keeping with the common approach on CCCU campuses to “educating the whole person” (p. 127).

Consistent with examining differences between students at various types of colleges and universities (public and independent private) and those who select a private, church-affiliated/Christian college was a study that evaluated religious fit and retention of students at Christian colleges. The researcher sought to “determine religious congruence



and student retention” for new students at a sample group of 49 CCCU institutions (Forbes, 1998). First-year students from the 49 institutions completed a questionnaire developed by the researcher, to identify variables that most contribute to a student’s intent to persist at their selected college or university. Findings indicated that there were ten variables of significance related to student intent to stay in college at that institution, such as institutional fit, loyalty, practical value of education, encouragement from family and friends, significant others elsewhere, and religious growth, among others.

Comparisons and correlation have also been sought through studies related to involvement and retention at three private, Christian colleges (Curtis, 1997). First-time students completed two survey instruments designed to identify the frequency of, satisfaction, and affect of involvement on campus related to student-student interactions and student-faculty interactions. Analysis of variance results between those who persisted to the second semester and those who did not; indicate that there are significant differences in the perceived affect of student-student and student-faculty involvement.

Another study of first-year college students examined academic performance and financial aid and its’ impact on first generation students persistence to the sophomore year. Though there has been an increase in first-generation college students, their graduation rates lag behind those of other traditional students (Green, 1998). Participants in the study were first-year, first-generation college students from three CCCU institutions. The findings indicated that first-year GPA was positively correlated with sophomore year retention, and though not as strongly correlated, the total financial aid did have a statistically significant impact on retention. One additional item of note, was

that the retention rate of first-time students in the study of CCCU students was better than the national retention average, especially for first-generation college students.

Student satisfaction and factors that influence student persistence at CCCU institutions (such as religious life, social life, residential arrangements, graduate school aspirations, for example) were considered as it related to a sample group of students at a selected number of CCCU member schools (Walter, 2000). Findings indicated that there was a negative influence on retention and persistence for students who worked off-campus and/or who were not attending their first or second choice school.

Over 75 member institutions from the CCCU participated in a three-year “quality and retention” project from 1997-2000, which included surveying 20,000 (first year through senior year) students on member campuses regarding student satisfaction. The instrument used was the Student Satisfaction Inventory (SSI) from USA Group/Noel-Levitz. The SSI is an inventory with approximately 115 statements regarding all facets of campus life. The student responses are given on a Likert scale format with agreement or disagreement with each statement ranging from 1-strongly disagrees, to 7-strongly agree. The cumulative results of the study from CCCU institutions, which were compared to a national database of various institutional types using the SSI, indicated “Christian college students are generally more satisfied with their educational experience than students at secular private colleges” (p. 35). The student satisfaction levels were hypothesized to be indicators of a student’s intent to persist to graduation at those CCCU institutions (Gardner, 1998). Follow-up studies are planned by the CCCU to track student graduation rates among those participants in the initial study.

## Summary

The preceding sections have summarized and synthesized the initial literature related to historical and foundational theories of student persistence in college primarily by Spady (1970), Tinto (1975, 1987, 1993), Astin (1975, 1984, 1993), and Bean (1980, 1983, 1990).

Further literature review of student motivation, personal traits and strengths included background information from Anderson (1998), Rickinson (1999), Rawson, Palmer, and Henderson (1999), and Feenstra, Banyard, Rines, and Hopkins (2001).

Additional studies related to motivational constructs (Allen, 1999), student attributes and academic motivation (Morrison, 1999), and cognitive and affective development (Banta and Kuh, 1998) were considered.

Studies on predicting student retention or persistence of first-time students in college (Murtaugh, Burns, and Schuster, 1999), student expectations of educational attainment (Rosenbaum, 1998), and outcomes for scholarship students were compared (Rice and Darke, 2000) for first-year student cohorts. Studies in the last decade (Cabrera, Nora, and Castaneda, 1993), (Berger and Milem, 1999) have also been conducted to evaluate the current application of the foundational theories of Astin, Tinto, and Bean from the last three decades of research on student performance, attrition and persistence in college.

Finally, the literature review included research studies relative to the topic of student retention and persistence conducted since 1995 at church-affiliated, Christian colleges and universities across the United States. These studies were primarily, though not exclusively, at institutions holding membership in the Council of Christian Colleges

and Universities (CCCU). Topics of the studies included differences between private, nonsectarian colleges and private, religious affiliated Christian colleges (Harrington, 1995), assessments of character development (Underwood, Maes, Alstadt, and Boivin, 1996), “religious congruence and student retention” (Forbes, 1998), involvement (Curtis, 1997), first generation college students and their financial aid impact on retention (Green, 1998), and student satisfaction among CCCU student enrollees as measured by the Student Satisfaction Inventory (SSI) (Gardner, 1998).

The following chapter will describe the research methodology employed in this study.

### CHAPTER THREE: METHODOLOGY

The research study sought to answer questions relating to the impact of first-time college students receiving written assessment results and follow-up training on their individual strengths as identified by the Gallup Strengths Finder® (GSF) inventory, and academic outcomes in college (first semester GPA, hours earned) and continued enrollment (persistence) from the Fall 2001 semester to the Spring 2002 semester of their first year.

The study was conducted at a private, four-year, liberal arts, denominationally affiliated college (Mount Vernon Nazarene College) (MVNC) holding membership in the Council of Christian Colleges and Universities (CCCU). The CCCU is a coalition of one hundred denominationally affiliated and interdenominational Christian institutions of higher education with a total combined enrollment of approximately 183,000 students (Jennifer Jukanovich, CCCU, personal communication, Feb. 13, 2001).

The intended purpose of the study was to identify the impact of students receiving written assessment results and follow-up training on their specific strengths and traits while first-time college students in the Fall 2001 semester at MVNC. Further, it was the writers intent to determine whether the strengths training would contribute to a more successful first semester in college (GPA, hours earned), and continued enrollment to the spring semester compared to new students in the control group who do not receive their written strengths assessment results or any strengths training. These results provide an additional research basis for added background on guidance and support services for first-time students entering similar colleges either in the CCCU or in non-affiliated private colleges and universities.

## Research Design

As a part of the annual assessment program at Mount Vernon Nazarene College, new students are given a variety of surveys, assessments, and inventories both during the orientation functions in the summer months of June and July, during an extended orientation sequence in the fall before classes begin, and also during the first-year college experience. The Gallup Strengths Finder® (GSF) is one of several instruments that have been used by MVNC for new students attending the summer orientation events in June and July. With the appropriate written consent (see Appendix D) the researcher accessed the results of the GSF for a study group of forty-one new students and conducted training, individual consultations, and results feedback to that group of students the month of October 2001 during their first semester of college at MVNC.

### Selection of subjects

The sample group for the study was randomly selected from among sections of the first-year English writing courses and consisted of forty-one first-time college students at MVNC. The Fall 2001 class included 321 first-time students, and was the pool from which the study group and a control groups were drawn. Therefore, the study group sample of 41 students represented slightly over ten percent of the entire class of new students.

Members of the study group must have completed the Gallup Strengths Finder (GSF) inventory during one of the summer orientations (in June or July) prior to the beginning of the training sequence for these students in October of their first semester.

The initial selection of the study group of forty-one students was closer to the actual gender balance of sixty percent female, and forty percent male population. However, six males and three females who initially gave consent to participate, later ceased to participate. This occurred after the beginning of the study when the interaction sequence had already begun, and a re-selection and preliminary training of additional participants was not feasible. The gender balance of the final test group was predominantly female (68%) compared to males (32%); however, the actual percentage of female enrollment at MVNC is nearly sixty percent annually.

This adjustment accounted for the number of thirty-two full participants and a modest shift in the gender balance of the test group from the originally selected test group of forty-one. As noted above, the factor of six males dropping out of the study group after the first session impacted the gender balance in the final study group compared to the control group of MVNC students.

For purposes of comparing the outcomes for students who received their GSF results and training and the general student population who did not receive written results or any additional training, a separate control group was randomly selected from among the same class sections of the same first-year English writing courses. Forty selected students functioned as the comparison or “control” group. The control group met the same criterion for inclusion in the study, such as summer orientation attendance, completion of the GSF instrument, and enrollment as first-time students at MVNC in the Fall of 2001.

## Instrumentation

The GSF instrument is a web-based, interactive computer assessment of approximately 181 matched-pair questions available only through the Gallup Organization.

The strengths approach and Strengths Finder® instrument is an outcome of a book on the strengths theory by Dr. Donald Clifton, CEO of the Gallup Organization and Paula Nelson (1992) entitled “Soar with your strengths”. All access to the Strengths Finder instrument, copyrights, and intellectual property rights are fully owned and protected by the Gallup Organization. For this reason, a copy of the GSF instrument is not included in the appendixes for this document. The researcher, for inclusion in the document appendices, requested a paper copy of the instrument. However, the Gallup Organization denied that request.

With the participating college using the GSF instrument as a part of the assessments at new student orientation, the researcher arranged for the college to have web access for the individual assessments and established the access codes (student ID numbers) for each student with the Gallup Organization, in advance of the orientation events. The Gallup Organization established a customized weblink access from their home page for MVNC students to log onto the Gallup site and complete the instrument, with all responses electronically recorded, and tabulated. Students completing the GSF instrument during the orientation session were guided by the researcher through the instructions and preparations for the assessment in a computer laboratory setting. Upon completion of the initial instructions, the students then entered their assigned access code



on the Gallup site and began to work through the instrument on an automatically timed, lock-step sequence, including the completion of demographic information requested by the Gallup Organization, and a practice question.

On each GSF assessment question, students responded to two statements on the screen by clicking on one of five options on a horizontal scale indicating which of the two statements most describes them. The middle response between the two statements was a neutral category with the other options for each statement being “strongly describes me” at the each end of the continuum (sample format questions only available directly from the Gallup Organization due to copyright laws). Respondents were given a fifteen-second response time for each item on the assessment, totaling thirty to thirty-five minutes maximum time for completion. The automated timing sequence for each question would simply take the student to the next question after fifteen seconds had passed, whether or not they had answered the question. The results for the assessment indicated whether there were more than ten questions left blank by the respondents. None of the students in either the study or control group left more than ten questions blank.

Each student taking the Strengths assessment during a four-group rotation at the event, received the same written and verbal instructions from the researcher prior to beginning of the Strengths Finder® instrument. Because the GSF instrument is a computerized instrument, the web link with the Gallup Organization allowed student responses to be immediately, and automatically collected from each respondent. With the results for each individual assessment logged on the Gallup site, a personalized summary for each student based on their responses was catalogued for later use in the research study during the upcoming Fall 2001 semester of enrollment.

### Assumptions or Limitations

The researcher conducted the study with the study group and control group students on some basic assumptions, and recognized limitations. In the context of this study, it was assumed that Mount Vernon Nazarene College first-time traditional students were comparable to other first-time traditional college students at other CCCU colleges and universities, due to the institutions common Christian mission, similar enrollment sizes, and membership requirements for being in the Council of Christian Colleges and Universities. Further, the researcher assumed that even though students did not receive the GSF results until four weeks into the fall semester, that there was no meaningful difference or change in results or outcomes associated with whether a student attended the June or July orientation events. It is also assumed by the researcher, that until each student in the study group received their GSF results in the fall semester that no significant change in strengths and traits occurred between the times they took the GSF (either late June or mid-July) and the beginning of the research study in October of 2001. Irene Burklund, Strengths Finder® training consultant for the Gallup Organization indicated that their validity research has indicated that GSF results have an 86% validity rate on subsequent re-takes of the instrument (personal communication, October 2001).

In the area of limitations of the study, there are some limitations present worth noting at this juncture. The primary study group of thirty-two new students, though randomly selected, could have generated different results than if the entire class of 321 first-time students were to be trained on their individual strengths and then tracked and evaluated for academic standing, first-semester GPA, hours earned, and continued enrollment to the spring semester. For purposes of manageability for the study and the

necessary timelines for completion, the smaller selected group of students (10% of the class) served as the representative sample or “study group”. Because the study group was selected from one CCCU institution rather than several, it could be that the results may have more modest implications for broad use in other types of institutions of higher education that are neither private colleges or CCCU members. Such a follow-up study, using multiple institutions of higher education or other CCCU schools, could test the results of this proposed study in the future, for comparison sake.

An additional limitation of this study related to the very limited ethnic diversity of the student body at MVNC. The large majority (97%) of undergraduate students at the college are United States citizens, white/Caucasians (MVNC institutional data) and therefore, the sample group of thirty-two and the control group of forty students, taken from the class of 321 new students did not contain an adequate number of ethnically diverse students to provide any specific facts or data on the impact of strengths training and development and the first-semester outcomes for students of color or international background. An opportunity for future study of the impacts of this instrument and subsequent training sequence, for students of color or ethnically diverse backgrounds could reveal meaningful results.

### Procedures

Following approval of the study by the dissertation committee and the University of Sarasota Human Subjects Review committee, each student participating in the study group received written Strengths Finder® results in an identical printed format with their name, student identification number, and the listing of their top five personal strengths or “life themes” as identified by the GSF. The results of the GSF provided respondents with

their top five identified strengths from among the total group of thirty-four general areas or “life themes” which are: relating, impacting, striving, and thinking (Gallup Organization website, 2001). In addition, with the written results that students received in the fall semester, for each of their top identified strengths there are brief descriptions of this theme and how those with a specific strength tend to function in various circumstances and possible career paths.

During the fourth week of the fall semester, students in the study group were introduced to the project in the selected first-year English sections, notified of their selection for the study and asked for their consent to participate. Forty-one students from the selected course sections were agreeable to participation, completed a consent to participate form and then scheduled a time to participate in an additional one-hour group-training session and an individual consultation with the researcher, to be held during October 2001 of their initial college semester.

During the second training session, student participants viewed a 20-minute slide presentation (see outline in APPENDIX B) on the Strengths Theory, the 34 strengths themes, the four quadrants which the themes are placed in (Table 3-1) and a initial goal setting exercise (see APPENDIX C) that established the framework for later group discussions in the training session.

Following this initial segment of the second training session, students then received their individual written GSF results and action items. The students were then given time in the session to read their reports and descriptions, followed by an extended discussion of the results with the researcher in the small group.

Table 3-1

StrengthsFinder® Themes

<b>Relating</b>	<b>Impacting</b>
Communication Empathy Harmony Inclusiveness Individualization Relator Responsibility	Command Competition Developer Maximizer Positivity Woo
<b>Striving</b>	<b>Thinking</b>
Adaptability Achiever Activator Belief Discipline Focus Restorative Self-Assurance Significance Intellection Learner Strategic	Analytical Arranger Connectedness Context Deliberative Fairness Futuristic Ideation Input

The third interaction with the study group of students was in the individual consultations with the researcher in an office setting, on-campus. The written Strengths Finder report included a second section called Strengths Finder Action Items.

These specific recommendations and applications were the primary content of the discussion with each student during their individual appointment. The action items included information and guidance on how to apply their specific strengths to their personal lives, college experience, career paths, and work partnerships. These individual reports are copyrighted and owned by the Gallup Organization.

The training sessions for the students were led completely by the researcher, who had completed the Strengths Coach training course at the Gallup School of Management in Lincoln, Nebraska, prior to the student-researcher interactions in the study.

#### Data processing and analysis

Following approval by the Human Subjects Review Committee at the University of Sarasota, each of the randomly selected student participants for the study group, were contacted prior to the fourth week of the fall semester by personal presentation in the selected English course sections. Each student received written information on the status of the research study, the benefits, and obligations, and was then offered an invitation to participate in the study. In addition, each student was asked to complete and sign an agreement to participate with the appropriate assurances of confidentiality in regard to their student records and GSF results (see APPENDIX D and E).

Initially, forty-one students from the selected group agreed to participate in the study, as previously noted. None of the selected participants were younger than eighteen

years old by the beginning of the project in early October; therefore a request for parental consent to participate in the study was not necessary.

Students who agreed to participate in the study attended the first classroom session, then had an initial evaluation of their Gallup Strengths Finder (GSF) results in the second interaction (one-hour group training) and finally the individual consultation during the last two weeks of October as described previously.

The second group-training sessions were done in smaller groups of eight-twelve students per session. The final individual session for each student with the researcher was used to guide students through a detailed analysis of their Strengths Finder® report, and discussion of practical applications and recommendations listed in the “Action Items” section of the GSF.

#### Data analysis procedure

Statistical analyses calculating a variety of t-tests for independent samples, were conducted comparing first semester grade-point average and hours earned toward graduation. These variables were evaluated both for students who received strengths training and the control group of first-time students that did not receive their GSF strengths results or the training sequence.

The following paragraphs include a summary of the hypotheses from Chapter One with the corresponding description of the statistical analyses or tests, which was used to test those hypotheses.

The directional hypothesis stated: There are statistically significant differences in first-semester outcomes (GPA, hours earned, continued enrollment) between first-time students who received Strengths Finder® results and training during the Fall semester

compared to first-time students who did not receive their Strengths Finder® results or training on the application and development of those strengths.

The accuracy of this hypothesis was tested using t-tests for independent samples to determine the extent to which knowledge and added training on individual strengths did or did not correlate significantly with first-semester student outcomes in the areas of grade-point average, and hours earned at the college.

The null hypothesis for the study stated: There are no statistically significant differences in first-semester academic outcomes (GPA, hours earned) between first-time students who received Strengths Finder results and training during the Fall semester compared to first-time students who did not receive their Strengths Finder results or further training on the application and development of those strengths. The null hypothesis was tested using t-tests for independent samples with a significance level of .05 necessary to affirm the null hypothesis related to each performance variable (GPA, hours earned).

Statistical analyses using the t-tests for independent samples, sought to determine whether or not the Strengths training significantly impacted first-time students at MVNC measured as acceptable academic performance (first semester GPA of at least 2.0 on a 4.0 scale) or unacceptable academic performance (under 2.0 and either placed on academic probation or dismissal). Further, along with training and evaluation of student strengths and first-semester grade point average and hours earned, the continued course enrollment to the Spring 2002 semester was also examined utilizing a test of hypothesis for proportions.



Finally, the first-year student retention percentages for the selected cohort group of thirty-two students was compared to the retention percentages for the control group of forty freshmen who did not receive their written Strengths results or added training, and interactions with the researcher during their initial semester at MVNC. A statistical test designed to measure inferences of difference between proportions in two independent samples was used to compare the percentage of retention from the Fall semester to the Spring semester.

In addition to the statistical testing described above, the researcher has included information, statistical comparisons, and results in Chapter Four comparing the cohort retention data for the sample group and the control group. Charts and tables listing the GPA, hours earned, and Spring 2002 enrollment outcomes for the student sample group and control group are also provided in Chapter Four and in the appendices documents.

## CHAPTER FOUR: FINDINGS

The following sections of Chapter Four will include a review of the purpose of the research study, the initial research questions for the study, the statistical analyses conducted, research outcomes, and a summary of findings.

### Restatement of the Purpose

Each year, new college students arrive on thousands of campuses nationwide to pursue higher education for the first time. Standard measures of student readiness for college typically include an evaluation of college entrance exam scores (ACT, SAT), high school grade point averages, plus a consideration of the depth and difficulty of the students' college preparatory high school courses and curriculum. However, it has been the observation of the writer that there are additional measurable variables in the area of strengths assessment and development that impact student success during the first semester in college and beyond.

Identifying specific student strengths and aptitudes, outside the traditional academic measures listed above, were believed by the researcher to be worthy of consideration and research in further developing and guiding first-time college students. It was hypothesized that such support programs could better equip first-time college students for acceptable academic performance necessary to be in good standing academically (at least 2.0 on a 4.0 scale, at least 12 semester hours earned) and eligible to continue enrollment in college to the spring semester.

With the concept of student strengths assessment and development, the researcher sought to measure the impact or benefits of training first-time college students at Mount Vernon Nazarene College (MVNC) on the results of a strengths assessment. After

extensive consideration of a number of assessments (including the Myers-Briggs Type Indicator, Career Direct, College Student Inventory), the selected instrument for the study was the Gallup Strengths Finder® (GSF), developed and copyrighted by Dr. Donald Clifton, CEO of the Gallup Organization.

#### Review of the assessment/training process

The GSF instrument was administered to all incoming, first-time students at a new student orientation session during the months of June and July, 2001 as a part of the college assessment program. The results (which were automatically tabulated for each student during completion of the instrument) were transmitted electronically to the Gallup website and later returned electronically to the researcher following the summer 2001 orientations, but prior to the beginning of the Fall 2001 semester. Results of the GSF assessment were not issued to students at the time of completing the web-based assessment in the summer. Only students later selected for inclusion in the study group were given their GSF summary report and recommendations following agreement to participate and their attendance at the training sessions with the researcher.

For purposes of the research study, the student results of the GSF were issued only to the students in a randomly selected group from among all sections of Freshman Expository Writing courses at MVNC. Students selected for the study that agreed to participate, received a written summary and recommendations generated by the Gallup Organization regarding their specific strengths traits, following the initial training sessions with the researcher. The subsequent training session and individual consultations with each student were conducted by the researcher, and focused on the participants' top

five individual strengths (as identified by the GSF) and how to develop and better make use of their top strengths.

The training sessions and individual consultations with the students in the study group were conducted during the second week of October 2001, the fourth week of attendance during the students first semester at MVNC. These student-researcher interactions and training sessions focused on assisting new students in understanding the strengths concept, the Strengths Finder® instrument, their top five individual strengths, and how these strengths could be further developed and utilized during their first semester of college at MVNC and throughout their college career. The focus of the student-researcher interactions was with practical application of their top five strengths to college life, course content, and potential career paths.

The results of the previous literature review detailed in Chapter Two provided an initial basis for considering a greater emphasis on student strengths within higher education especially in first-time college students. Specifically at Council of Christian Colleges and Universities (CCCU) member schools, such an approach to initial training for new college students and continuing college students, was believed to have the potential for significant impact both on student retention to following semesters and their personal development. Further, such training for students, related to identifying and developing their individual strengths was hypothesized to have a meaningful and statistically significant impact on first-semester college student outcomes (first semester grade point average, hours earned) and positively impact their continued enrollment at the college, leading toward graduation.

### Statistical analysis

The statistical analysis was conducted using Microsoft Excel spreadsheets from MS 2000 software. The t-tests for independent samples were conducted to measure the statistical equivalence of the study and control groups pertaining to high school grade-point average (GPA) and composite American College Testing (ACT) scores, in addition to the random selection method used to form the initial study and control groups. The t-test results confirmed the standard equivalency of both groups in the study (sample and control groups), for statistical analysis of the outcomes (Table 4-1)

The final high school grade point average for the study group of thirty-two was 3.517 and the control group of forty students was 3.321 on a four-point scale. With an assumption of the study and control groups being statistically equal, a two-tailed t-test with a .05 significance level was used. The t-tests pertaining to the ACT composite scores for the groups indicated a p-score of 0.234. With a .05 or less p-score required to indicate statistical differences in the two groups, the groups were identified as statistically equal in terms of the ACT average composite scores.

In the same manner, the cumulative high school grade point average for the first-semester MVNC students in the study and control groups was compared using t-tests for independent samples with a .05 significance level. The two-tailed p-score for the final grade point average comparison for the groups was 0.073. With a .05 significance level not being achieved, the high school grade point averages of both groups were determined to be equal at the beginning point of the training sequence with the study group. Therefore, in terms of standardized college entrance exams and final high school grade

averages and performances, the study and control groups were found to have no statistically significant differences between them prior to the beginning of the study.

Table 4-1

<b>t-Test: Two-Sample Assuming Equal Variances</b>		
<b>Control-Study Group ACT comparisons</b>		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	22.33333333	23.27273
Variance	9.333333333	12.95455
Observations	39	33
Pooled Variance	10.98874459	
Hypothesized Mean Difference	0	
df	70	
t Stat	-1.198110129	
P(T<=t) one-tail	0.117457524	
t Critical one-tail	1.666915068	
P(T<=t) two-tail	0.234915049	

Table 4-2

<b>t-Test: Two-Sample Assuming Equal Variances</b>		
<b>Control-Study Group HS GPA comparisons</b>		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	3.321842105	3.517281
Variance	0.230880299	0.16561
Observations		38 32
Pooled Variance	0.201124581	
Hypothesized Mean Difference		0
df		68
t Stat	-1.816338316	
P(T<=t) one-tail	0.036863131	
t Critical one-tail	1.667572178	
P(T<=t) two-tail	0.073726263	
t Critical two-tail	1.995467755	

### Focus of research questions

The primary research question and objective first examined in Chapter Two was whether or not first-time college students, at a private, four-year, church-affiliated college holding membership in the CCCU, who receive specific individual results and training on the Strengths Finder®, perform better academically, remain in good academic standing (cumulative GPA at 2.0, 12 semester hours earned) and continue enrollment past the first semester more than those who did not receive Strengths results or further training.

By measuring the impact of first-time college students receiving results and training on their individual strengths through the use of the GSF instrument, it was intended to identify specific strategies and support services that could be implemented. The purpose or intent of such services would be to increase the likelihood of acceptable academic performance for first-time college students and their persistence beyond the first semester of college enrollment.

### Results

The directional hypothesis for the study stated that there were statistically significant differences between those first-time students who received results and training on their identified strengths (as identified by the Gallup Strengths Finder®), and those first-time students who do not receive such training or information. The differences were expected to be evidenced by the degree to which first-time students in the study group achieved or did not achieve acceptable academic performance (2.0 minimum GPA, at least 12 hours earned), and continued enrollment to the second semester of the 2001-2002 academic year.



To test this hypothesis, each selected student in both the study and control groups had their Fall 2001 college transcript evaluated by the researcher, to glean results of their final, first-semester grade point average, the number of hours completed in the Fall semester, and the retention percentages for each group. In terms of averages, the study group had a cumulative first-semester, college, average GPA of 3.099 on a four-point scale, and the control group had a cumulative first-semester, college average GPA of 2.671. The overall grade point average the first-year cohort class at MVNC was 2.74.

At MVNC, the minimum grade point averages for acceptable academic performance varies depending on the number of semesters the student has been enrolled in college (the college uses a four-point grade scale). For example, first-semester college students must earn at least a 1.7 GPA for the first term, second semester students must have a cumulative GPA of at least 1.8, third semester students must have a cumulative GPA of at least 1.9, and from the fourth semester and beyond, students must maintain a minimum cumulative GPA of 2.0 to remain enrolled and in good academic standing. Once a student is placed on probation for a semester, they must meet the required cumulative GPA by the end of the following semester or they will be placed on academic dismissal. In addition, the college has a policy that any student earning less than 1.0 for any term can be immediately dismissed without a semester on probation, regardless of their cumulative GPA.

For purposes of this study, the researcher identified both those students that were below 2.0 following the Fall semester, and those below the first-semester GPA minimum of 1.7 that were placed on academic probation for the spring 2002 semester.

From the study group there were two of the thirty-two students (less than one percent, (.0625)) who earned less than a 2.0 GPA for the fall semester and were also placed on academic probation for being at less than a 1.7 GPA. From the control group of forty first-semester students there were eight students (2.0 %) under 2.0 and six of those eight students (1.5% of the control group) were placed on probation for being at less than a 1.7 GPA.

Using a t-test for independent samples, with a .05 significance level, the Fall 2001 academic performance was compared for both the study and control groups. Because the directional hypothesis predicted that the difference would be reflected in a higher first-semester GPA for the study group, a one-tailed score was sought. The resulting one-tailed, p-score of .024 indicates a statistically significant difference between the Fall GPA of those students who received StrengthsFinder® results and training and the control group students who did not (see Table 4-3).

The second series of statistical tests conducted for the two groups, compared the amount of semester hours earned during the Fall 2001 semester. Students must achieve at least a passing grade of “D” to earn the credit for the class (though courses in their major require a “C” or better). Students at MVNC considered to be full-time status, are enrolled in twelve to fifteen semester hours per term. The comparison between the groups, for hours earned during Fall 2001, indicated that the average hours earned by the study group of first-year students was 13.727. The average hours earned by the control group of first-year students was 12.712. Once again, the directional hypothesis predicted that the study group receiving training would perform better academically than first-year students in the study group.

Table 4-3

**t-Test: Two-Sample Assuming Equal Variances  
Control-Study Group MVNC Fall GPA Comparison**

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	2.671025	3.099515
Variance	0.980770948	0.652432
Observations	40	33
Pooled Variance	0.832787172	
Hypothesized Mean Difference	0	
df	71	
t Stat	-1.996638157	
P(T<=t) one-tail	0.024849711	
t Critical one-tail	1.666599019	
P(T<=t) two-tail	0.049699421	
t Critical two-tail	1.993944352	

Because a specific difference in the results was hypothesized (better performance by the study group) a one-tailed p-score was considered. Utilizing a t-test for independent samples with a .05 significance level, the number of semester hours for both groups were compared resulting in a one-tailed p-score of .041. Pertaining to semester hours earned, this score again confirms the directional hypothesis that the study group receiving Strengths Finder® results and training would perform better, in a statistically significant manner, than the control group of first-year students (see Table 4-4). In terms of continued enrollment or retention percentages, the enrollment of the two groups for the Spring 2002 semester is detailed in the following paragraphs.

First-time college students at the institution participating in this study have had an average retention rate (new students from fall returning for the spring semester) of 87.4% over the last three years (MVNC Institutional Research). The study and control group percentages of return will be reviewed and evaluated for comparing outcomes for the two groups.

With the beginning of the Spring 2002 semester having passed, the researcher examined the study and control group students current enrollment records available on the MVNC administrative computer system. The examination involved each group enrolled for the Fall 2001 semester and a cross-tabulation of the Spring 2002 enrollment rosters for the same group of students.

As previously described, the study group had a total of thirty-two first-semester students at MVNC who participated in three contact points with the researcher (three times during the month of October 2001). Of the thirty-two students who began the

Table 4-4

<b>t-Test: Two-Sample Assuming Equal Variances</b>		
<b>Control-Study Group Comparison of Hours Earned- Fall</b>		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	12.7125	13.72727
Variance	8.485737179	3.06392
Observations	40	33
Pooled Variance	6.042101472	
Hypothesized Mean Difference	0	
df	71	
t Stat	-1.755497903	
P(T<=t) one-tail	0.041743667	
t Critical one-tail	1.666599019	
P(T<=t) two-tail	0.083487333	
t Critical two-tail	1.993944352	

semester, thirty-two completed the term, and thirty-one of thirty-two continued enrollment at MVNC for the spring semester for a Fall-to-Spring retention percentage of 97% compared to the overall first-time student retention rate of 91% (MVNC institutional data). The one student from the study group who left the college earned a 3.07 GPA, but transferred to another institution that offered the major she had selected (nursing) that is not offered at MVNC.

The researcher also conducted identical retention comparisons for the control group of forty first-semester college students. In the same manner as for the study group, the Fall enrollment records of the students in the control group were cross-tabulated to determine which of those students had continued enrollment to the Spring 2002 semester and those who had not. From the control group, thirty-five of the forty students continued enrollment at MVNC for a Fall-to-Spring retention rate of 87%. The difference in retention rates for the two groups was 10%. The study group returned all but one student while five from the control group did not return for the spring semester (see Table 4-5).

However, a test of proportions for two sample groups, with an alpha level of .05 indicated a p-score of .076 which did not conclusively provide statistically significant support for a clear statistical difference between the two groups, related to fall-to-spring retention rates (Table 4-6). In the following segment of this chapter, a statistical analysis of the null hypothesis for the research project will be reviewed.

The null hypothesis for the research study was that there would be no statistically significant differences in academic performance (GPA and hours earned), between those first-time students who received results and training on their Strengths Finder® results,

Table 4-5

**GPA Comparisons-MVNC First Semester**

Study Group	<b>3.100</b>
Control Group	<b>2.742</b>

**Hrs. Earned Comparison-First Semester**

Study Group	<b>13.73</b>
Control Group	<b>12.71</b>

**Percentage of Group earning under 12 hrs.**

Study Group	9.3%
Control Group	12.5%

**Spring Retention % Comparison**

Study Group	97%
Control Group	87%

Table 4-6

Comparing percentage of retention

User Specified Values

Sample Proportion from Population 1 =	0.96875
Sample Proportion from Population 2 =	0.875

n1 =	32
n2 =	40

alpha level =	0.05
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Computed Values

z =	1.430194
Area to the left of the z score =	0.923669
Area to the right of the z score =	0.076331

and those first-time students who did not. An affirmation of the null hypothesis would indicate statistically insignificant differences evidenced by the similarities of outcomes for first-time students in the study group and control group achievement of acceptable academic performance (2.0 minimum GPA, at least 12 hours earned), and continued enrollment to the second semester regardless of intervention and strengths training by the researcher.

Using the t-tests for independent samples with a .05 significance level, there was a .02 p-score (see Table 4-3 above) comparing the different first-semester GPA's for the study group (3.099) and the control group (2.671) and a .04 p-score (see Table 4-4 above) comparing the difference in average semester hours earned by the two groups (13.72 for the study group and 12.71 for the control group). The average hours earned for the entire first year class was 13.52. With both p-scores for average GPA and average semester hours earned falling below the maximum .05 significance level, the results indicated statistically significant differences between the two groups on grade point average and hours earned. Therefore, the null hypothesis would be rejected as it relates to those two academic performance variables. The cohort retention percentages between the two groups (97% retention to Spring for the study group and 87% retention to Spring for the control group) also differed by 10%, though falling short of a statistically significant difference (.076).

#### Additional research outcomes

In addition to the two primary academic factors stated above and described in the null hypothesis and the initial hypothesis for the study, a secondary but related academic factor was considered in comparing the two groups in the study.



Following testing related to the null hypothesis, a factor (beyond first semester college grade point average and semester hours earned) considered by the researcher was to compare the average level of change from the students' final cumulative, four-year high school GPA and the students first-semester college GPA. Typically, MVNC students as a group will average approximately a .50 lower GPA (on a four-point scale) their first semester at the college level than their final high school GPA (Institutional data, MVNC, 2001).

Both the study and control groups averaged a lower GPA (on a four-point scale) their first semester of college than their group cumulative four-year GPA for high school. For example, the study group had an average four-year final high school GPA of 3.517, while the average four-year final high school GPA for the control group was 3.306 (Table 4-7). The average drop from the final four-year high school GPA to the first-semester college GPA for the study group was 0.305 on a four-point scale. The average drop from the final four-year high school GPA to the first-semester college GPA for the control group was 0.625 on a four-point scale.

As an additional point of analysis, these two figures were compared using t-tests for independent samples with a .05 significance level. The results comparing the average high school to college GPA decline for the two groups indicated a one-tailed p-score of .064, and a two-tailed p-score of .12 which did not meet the established .05 minimum significance level (see Table 4-8). Even though the t-tests related to the null hypothesis proved statistically significant differences on grade point average and semester hours

Table 4-7

**GPA Comparisons-MVNC First Semester**

Study Group	<b>3.100</b>
Control Group	<b>2.742</b>

**Average GPA drop from HS avg. to College-Semester 1 GPA Avg.**

Study Group	<b>0.311</b>
Control Group	<b>0.590</b>

Table 4-8

<b>t-Test: Two-Sample Assuming Equal Variances</b>		
<b>Control-Study Group Average GPA drop HS to Sem. 1</b>		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.305727273	0.624
Variance	0.799129642	0.726919
Observations	33	38
Pooled Variance	0.760408124	
Hypothesized Mean Difference	0	
df	69	
t Stat	-1.533895048	
P(T<=t) one-tail	0.064814107	
t Critical one-tail	1.667237939	
P(T<=t) two-tail	0.129628214	
t Critical two-tail	1.994944796	

earned, this secondary academic factor did not prove statistically significant differences in the two groups. The one-tailed .064 p-score for the study group comparison could perhaps indicate some relevance to explore in future retention studies using the GSF instrument as a training tool with first-semester college students.

### Summary of findings

The focus of this research study was to determine whether or not students receiving results and written feedback on their StrengthFinder® assessment, followed by a sequence of training interactions with the researcher, would perform better academically than students who did not receive their StrengthFinder® results or additional training or interaction. Following the Fall 2001 training sequence, and statistical analysis of the student academic outcomes (first-semester GPA and hours earned) it was determined by the researcher that the assessment results, training and consultation with the study group made a statistically significant difference in the average group GPA and hours earned.

A secondary analysis of the high school to first-semester-college grade point drop comparisons for students indicated a noticeably stronger college GPA (3.105) for the study group than the control group (2.671 ). However, the independent sample t-tests did not confirm a statistically significant difference between the high school and college grade performance for these two groups on this factor (p-score of .07 did not confirm a difference using the .05 level of significance). Because the p-score of .07 approached the .05 significance level, but did not confirm a clear statistical difference, the score may indicate some value in further examining this factor of grade drop from high school to the

first semester of college in future retention and first-year student outcome research studies.

In addition, the fall-to-spring retention percentages of first-semester students continuing enrollment at MVNC were stronger for the study group (31 of 32, 97%) with the control group returning 35 of 40 first-semester students (87%) (see Table 4-5 above).

In the final chapter, the author will examine several factors related to the study including a summary and overview of the research, conclusions to be drawn from the research results, and recommendations for future study on the topic of first-time college student academic performance and retention outcomes.

## CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Summary

The preceding four chapters of this document have outlined key elements of the research study beginning with the statement of the problem in Chapter One. The primary problem examined by the writer, related to a perceived need for the identification of specific strengths of first-time college students, and follow-up training during the early weeks of their first semester.

Traditional analysis of new college students typically relates to pre-college high school grades, college preparatory course content, and standardized college-entrance exams (ACT and SAT), but does not identify other, perhaps less obvious, areas of strength and talents. Such identification of strengths and talents in first-time college students could enable colleges and universities to more fully assess and evaluate the types and levels of services that individual students need.

It was hypothesized that such information and training on student strengths and areas of talent (likely unidentified) would contribute to stronger student academic performance and persistence to following semesters of college enrollment.

Chapter Two examined the span and scope of related literature on student retention, student success programs, student services programs, counseling and mentoring programs, and various instruments used to assess first-time college students. From the literature review, it was determined that a research study examining the impact of training on student strengths and their applications for first-time college students at institutions holding membership in the Council of Christian Colleges and Universities (CCCU) was

feasible, worthwhile, and would add to the body of research on first-time college student outcomes.

Though related retention studies had considered a broad range of factors and interventions at the college/university level, in general, the assessment, training and application of student strengths or traits as it related to the retention and academic performance of students, had not been extensively measured, studied or researched to any significant degree. Studies of this type and design were scarce indeed.

Research methodologies and the process of the research study were detailed in Chapter Three, including the research design, selection of subjects, instrumentation (the Gallup StrengthsFinder®), limitations of the study and basic assumptions on the part of the researcher. In addition, a specific description of the research procedures was given to enable future researchers to replicate the study, as well as the statistical data processing and analysis.

Following collection of the data and information, the results and findings were presented in Chapter Four along with descriptions of the statistical tests used to measure the statistical equivalency of the study and control groups, plus the statistical significance of the data collected by the researcher. The research findings derived from the statistical analysis provided statistically significant evidence to support the hypothesis related to student performance. The t-tests for independent sample revealed a significant difference between the study and control groups, both in the level of first-semester grade point averages and the number of semester hours earned. Due to these statistically significant results, the null hypothesis was rejected.

## Conclusions

The following section reviews a number of items identified by the researcher that could have been added to improve the breadth of research data from this study. The topics discussed relate to the timing of subject training, the benefit of an intake interview besides the concluding consultation that occurred, a larger sized sample in order to better examine gender and ethnic differences within the study and control groups, and the use of a pre-test and post-test instrument to better identify student change over the course of the semester.

The training sessions with students in the study group began during the fourth week of the Fall 2001 semester. This occurred due to the need of the researcher to complete a Strengths Coach certification and training course at the Gallup School of Management in Lincoln, Nebraska, the first week of October, 2001. Once the researcher had completed the necessary consultant training certification at Gallup, the student training sequence began. Had it been possible, the timing for the student training could likely have been more beneficial for the first-time students within the first two weeks of the semester rather the fifth and sixth week of the term (training and individual consultations started after week four and extended for a two-week period).

Strengths Finder® training in the pivotal first two weeks of the first semester (rather than beginning the fourth week) could have tended to minimize variable student interactions on-campus with other students prior to training and consultations, and to measure whether the outcomes (GPA, semester hours earned) are even more significant between study and control groups with an earlier training sequence. The following

section will provide considerations of an intake interview, prior to GSF training and the individual consultations.

In addition to the students receiving their written GSF results and training, and a personal consultation with the researcher following training, the possibility of an initial intake interviewing of individual participants during the first two weeks of the fall semester could have made an impact. To conduct an intake interview, prior to the GSF training could have provided additional qualitative data in addition to the statistical analyses of grade-point averages and semester hours earned following the close of the first semester. Such a format would have enabled the researcher to analyze a pre-training interview paired with the individual responses in the closing consultation after the GSF training. A pre-training interview and a post-training interview could reveal significant variables of student growth and discovery, not identified by the academic outcomes data.

### Recommendations

This section will offer an overview of future research opportunities for studies related to strengths development. Possible applications and programs that could be guided from future research are offered in the following paragraphs.

Due to the gracious cooperation of the Gallup Organization, MVNC students were allowed to access the GSF instrument which was used as the research study assessment tool. For future research using the GSF instrument in this type of higher education setting (CCCU or otherwise), researchers should consider seeking grant funding through a number of foundations or the federal government FIPSE (Fund for the Improvement of Post Secondary Education) grant program that supports improvements in higher education. Such a funding source would allow an institution such as MVNC to continue



using the GSF assessment with all first-time students, only issue the results to all students (rather than just the study and control groups) and conduct initial training at the summer orientations and Fall training prior to the beginning of classes each year. Additional college faculty and/or staff would need to receive Strengths Coach training through the Gallup Organization in order to handle a broader training sequence for an entire group of 350-375 first-time college students. Such training and guided feedback to first-time college students could perhaps extend to all new students, the benefits and improved academic outcomes experienced by the study group this past fall semester.

Initial research studies often reveal information that should be considered in similar methodology and fashion in order to test the results of the study in a different but similar context. The study being described was completed at a private, Christian college, located in north central Ohio. A follow-up, replication study should be conducted with study and control groups selected in similar fashion, only expanded to include more than one institution. Such a joint research program should include an additional CCCU college or university, or another regional private, liberal arts college or university either in the north central U.S. region or elsewhere. Such a study should compare outcomes with this initial study, differences between results for two similar institutions (private, liberal arts), or a comparison between two different types of post-secondary institutions (perhaps one private, liberal arts and the other public, state-supported, research university).

An additional research option would be to conduct a strengths assessment and training sequence with a study group at this institution (MVNC), a second group from a similar CCCU institution in this region, and a third and fourth study group at a two private, liberal arts, non-church affiliated institutions and compare those four group

results for differences between private, liberal arts colleges that have religious affiliations and those college that do not have current religious affiliations.

The following section of this chapter will be focused on programmatic options or considerations for student services that could be developed and implemented utilizing the GSF results and training information on student strengths and talents.

### Program options

Programmatic offerings and student support services in institutions of higher education are critically important for student development and growth. Student development, both socially and intellectually, is clearly impacted by both classroom experiences and those interactions and experiences that occur outside the classroom. The concept of strengths identification and the strengths theory focus on an approach to assessment and development of students that differs from conventional academic assessment and training programs of advising, mentoring, or coaching. The programs considered in the following section include both those that integrate the strengths approach to classroom experience, as well as support services provided to students in areas of advising, residence life, career services, peer mentoring, and student leadership development.

The current advising model for incoming students at MVNC, is to evaluate previous high school coursework (or college coursework for transfers), and primarily use standardized test scores for placement in the appropriate courses. The model assigns students to varying course levels of English, math, and reading based upon sub-scores from the ACT test. Students who do not meet minimum sub-score levels in English, math, and reading (ACT-19) are assigned to remedial courses (usually their first

semester) to develop their level of competency in these areas before proceeding with courses in those areas that lead to graduation. This approach to advising has sometimes been described as a “deficit-model” rather than a strengths approach that intentionally places students in at least some course areas their first semester that connect with their identified strengths while simultaneously moving them toward greater proficiency in the fundamental academic areas needing improvement.

An advising model based upon the strengths analysis, could use the GSF as part of a larger campus-advising project to help faculty and staff to better identify student gifts and talents as they apply to both personal development and professional service and ministry opportunities and future vocational options. A collaborative joint program between Career Services, Residence Life, and Campus Ministries could be considered to facilitate the development of a more cohesive training and advising program for students that integrate aspects of these three areas (careers, community life, and service/ministry). Currently, the college has a course designed for students conditionally admitted as first-time students. This course targets time management, study skills, test preparation, note-taking formats, and college transition issues. Students who are accepted unconditionally do not participate in transitional or assimilation courses at MVNC.

The general education committee is in the process of considering a faculty proposal to initiate a one-hour required course for all new students that would seek to better assimilate each new student to the college, to critical thinking and ethical decision making, to the culture and ethos of the college, and to support services available. In the context of such a course, the GSF could be issued to all first-time college students with the GSF summary score reports and feedback, and follow-up training in the context of

this course. The Gallup Organization offers resources, both printed and online, to assist students in the strengths discovery process.

Career path considerations and development were discussed briefly above in relation to a collaborative student-advising model. There are additional options for integration of the GSF results for new students considering careers as they are progressing through college. The GSF instrument written feedback has meaningful information related to career paths and types of jobs or vocations. With proper training on GSF coaching and training, such results could be used by career development specialists in connecting student strengths with information on various career paths in tandem with career direction software programs such as SIGI Plus and Career Direct. If students were to complete the GSF instrument prior to or at the point of enrollment, the results could be a key piece in developing a plan of action for careers, vocation, and ministry.

Two years ago, MVNC began a peer-mentoring program that involved the selection and training of approximately 40-50 upper division students. These students received training in small group mentoring processes and have led weekly mentoring sessions with a group of 12-14 first-time college students in an intact group formed according to their residential areas. In relation to this program, it could be possible that the upper-class student mentors could receive leadership training in identifying and developing strengths in their mentoring of first-year students.

A final programmatic possibility for use of the GSF is in leadership training with student leaders to empower them to contribute to creating a campus culture that is centered on individual strengths in students. Student government association members

(approximately 30) and resident hall assistants (approximately 20) could be targeted for intentional leadership development skills and training.

The following section of this chapter will offer future research options that could be pursued within the general context of this research study, while examining new avenues of understanding as it relates to the development and growth of college and university students.

#### Future research options

Numerous other research options exist for studies of traditional-aged college students related to strengths training outcomes. The most obvious opportunity for continued study would be on-going performance evaluations (GPA and semester hours earned) and retention tracking for the Fall 2001 study and control groups through the Spring 2002 semester to reflect their first full year of college enrollment at MVNC.

In similar fashion to the strengths study conducted with first-time students following their initial college semester, could be a longitudinal study with additional strengths training for the Fall of 2002 extending through the sophomore year and measuring its impact.

Extended training and retention tracking of cohort group students with GSF focus through the sophomore, junior, and senior year (including graduation rates), could reveal significant data on the extended impact and benefits of strengths assessment and training for college students.

In the early stages of developing this study, the author considered using the Myers-Briggs Type Indicator (MBTI) as the assessment tool for working with first-time college students. While the GSF and MBTI are different types of instruments in structure and focus, there are similarities how one can make application of the results. Additional

research could be done analyzing the GSF results in relation to the MBTI personality inventory as a paired assessment analysis for individual students. Such an analysis could consider the dual applications of the GSF and MBTI for trait correlations with human interaction and personality types in residence halls and other significant social settings on campus for new students.

The GSF could further be used as a training tool for higher education professionals, particularly those who work directly with students (student services, academic services, counseling and advising centers, and certainly, teaching faculty). For these individuals who interact with students who are at an academic, social, physical, and spiritual crossroads in their lives, what better approach than to focus on the unique gifts, strengths, and talents that each individual student brings to our campuses?

This chapter has summarized the background, hypotheses, key elements, and results of this study. The central focus of this final chapter has been to draw specific conclusions and summaries, identify areas of possible improvement for the study, and make recommendations for future studies related to the topic of strengths training and the strengths theory.

Finally, it is the belief of this author, that the cognitive and psychological connection that students make between their God-given, strengths, gifts, and talents, and their sense of self, uniqueness, and purpose in life, is pivotal to healthy development in their current and future relationships and their roles of productive service to others.

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APPENDIX A

Human Subjects Review Committee Approval

## APPENDIX B

### Training Session Powerpoint Presentation

Discover Your Strengths  
Mount Vernon Nazarene College

Fall 2001

- Dr. Donald Clifton, CEO of the Gallup Organization co-authored a book entitled “Soar with your strengths”.
- Premise of the book and the strengths theory is that everyone has a unique combination of strengths!
- We must discover our strengths in order to develop and use them to God’s glory.
- Strengths/themes are spontaneous, recurring patterns of thought, feeling, or behavior.

How can I use the results of the Strengths Finder?

- A focus on your strengths rather than weaknesses can bring about positive changes and impact.
- The written summary of results and recommendations will provide information for improved self-awareness of your strengths
- Associate Dean of Enrollment Services will conduct follow-up, individual appointments and mentoring with each student in the selected groups.

### Self-Analysis

- What are you responsible for as a college student at MVNC?
- What activities or things that you are really interested in or excited about?
- List two successes you are proud of.
- Turning point in your life?
- Goals for next year?

### Review Strength themes

- Total of 34 areas of strengths, identified by the Strengths Finder assessment.
- Four Quadrants of Strengths
- Issue Strengths Finder reports with Top 5
- Any surprises in your Top 5?
- What is your Top strength?
- What Quadrant is dominant?

## APPENDIX C

### Self-analysis worksheet sample

## Self-Analysis

- What are you responsible for as a college student at MVNC?
  
- What are activities or things that you are really interested in or excited about?
  
- List two successes you are proud of.
  - 1.
  - 2.
  
- Turning point in your life? (Could be more than one)
  
- Goals for next year?

## APPENDIX D

### Consent to Participate Information



**October, 2001**

**Discover your strengths project**

To the student participants: The purpose of this research study is to measure the impact of information and training you will receive on your individual strengths (as identified by the Gallup Strengths Finder (GSF) inventory) and outcomes of your first semester of college. If you agree to participate in this research study, you will receive your GSF results in written form and have the opportunity to participate in a one-hour group training session and one individual 30-minute coaching session during the fall semester, with the researcher at MVNC (Jeff Williamson).

Your participation in this research study is voluntary. You may refuse to participate at all, or choose to stop your participation at any point in the research, without fear of penalty or negative consequences of any kind.

The information/data you provide for this research will be treated confidentially, and all data (your GSF results) will be kept in a secured file by the researcher. Results of the research will be reported as aggregate summary data only, and no individually identifiable information will be presented or released.

You also have the right to review the results of the research, upon completion, if you wish to do so. A copy of the results may be obtained following completion of the study, by contacting the researcher at the address above.

There will be personal benefits from your participation in this research. By receiving written feedback and training on your personal strengths, you will have added information on the possible use and/or development of your identified strengths which will likely add to your success in college. Further, your participation will provide added research support for assisting other first-time students at MVNC as they begin their college careers and seek to develop their unique strengths, gifts, and talents.

APPENDIX E

Consent to Participate Signature Page

**Discover your strengths project**

**Consent to participate signature page**

I, \_\_\_\_\_, have read and understand the foregoing information explaining the purpose of this research and my rights and responsibilities as a participant. My signature below designates my consent to participate in this research, according to the terms and conditions outlined on the previous page (see Consent to Participate Summary).

Signature \_\_\_\_\_ Date \_\_\_\_\_

Print Name \_\_\_\_\_

**Contact person:**

**Jeff Williamson, Associate Dean of Enrollment Services**  
**Mount Vernon Nazarene College**  
**800 Martinsburg Road**  
Mount Vernon, Ohio 43050

## APPENDIX F

### Training Session Overview Received by Students

## Discover Your Strengths Training Sessions

**October, 2001**

Students from among the selected sections of Freshman Expository Writing (ENG143) who choose to participate in the Discover Your Strengths training will receive the following:

- your detailed **Strengths Finder** results in written form along with recommendations for action, during the one-hour group training session with your classmates.
- one individual 30-minute **Strengths coaching session** during October, with the consultant at MVNC (Jeff Williamson).

The following one-hour slots are scheduled for **Discover Your Strengths** training sessions. The sessions will be repeated at the times below, and each student only needs to attend one of these times to receive the information and items listed above. These sessions are on an *invitation-only basis*, at this time, and participants **must** be in the groups that have been selected for this initial training.

**Pick only one time below to attend your Strengths training session and sign up for that time.**

### Thursday, October 11<sup>th</sup>

2:00pm-3:00pm –Founders 221

3:15pm-4:15pm- Founders 221

6:00pm-7:00pm- Founders 222

**If needed:** An additional session is available for **Thursday, October 18<sup>th</sup>** during the **10:20am-11:20am** slot since there is no Chapel on the 18<sup>th</sup>.

If you have any questions, or need to schedule a separate time for your training, please call extension **4532** or email: [jeff.williamson@mvnc.edu](mailto:jeff.williamson@mvnc.edu)