

**A Study of the Validity of StudentKeys (formerly Career Quest) Freshman Acclimation and Retention Program
and its Impact on First-Year Student Success and Retention**

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Career Quest is a self-administering and self-interpreting program designed to enable students to become better acclimated to college by understanding themselves more thoroughly. This program, published by the Career Quest Corporation, contains four modules focused on basic principles of personality styles, learning styles, and goal setting. According to information supplied by Career Quest, this program retains students in college “by helping them fit in, improve their study habits, acclimate themselves to their new environment, and set career, educational, and personal developmental goals for their future” (Kulkin & Turose, 1998, p. 1). The purpose of the study described herein was to determine if using Career Quest’s Freshman Acclimation and Retention Program actually resulted in significant differences in student retention rates, academic performance, readiness for career selection, and acclimation to college.

Method

Eastern College, a Christian liberal arts college located in the suburbs of Philadelphia, was used as a test site for the Career Quest program during the Fall of 1998.

Subjects

325 first-year students at Eastern College participated in this study. Each signed an informed consent form indicating their agreement to participate in the research study and to provide the data and information requested. Sixteen instructors of the first-year seminar entitled Living and Learning in Community were randomly assigned to one of two conditions: in the control condition, the instructor taught the 3-credit course as it has been taught for the past four years, following a common syllabus which did not include any sessions on career issues, discovering personality styles, or assessing learning styles. In the experimental condition, the instructors added four sessions of Career Quest materials, but otherwise taught the course as the control condition instructors did. The course normally focuses on a multi-faceted approach to wellness by examining intellectual wellness, socioemotional wellness, physical wellness, and spiritual wellness. Students were assigned to sections of the course based on their intended major or area of interest. Thus, 155 first-year students participated in the Career Quest condition and 170 first-year students did not.

Materials

Students assigned to participate in the Career Quest sessions spent four class sessions of one hour and 20 minutes each using the materials provided by the Career Quest program. Those materials included four separate workbooks which contained: a) an introduction to the topic for the session, b) a self-assessment tool, c) instructions for scoring and interpreting their profile, d) an overview of the personality or learning styles which had been assessed in that unit, e) more detailed descriptions of each particular style, f) detailed suggestions for what to do with the information in the workbook, and g) exercises for students to complete in order to apply what they had learned about themselves to their college situation. Teacher's guides were supplied to each instructor, containing suggestions for using the material in the class sessions.

Four workbooks were used in this study: the Personality Style workbook, the Perceptual Learning Style workbook, the Cognitive Learning Style workbook, and the Career Choices workbook. The self-assessment tools in each workbook contained 8-20 items arranged in categories, in which students were asked to rank four options in each category from "most like me" to "least like me." The Personality Style workbook is based on the Personal Profile System developed by John G. Geier (Geier & Downey, 1982). It categorizes students' personality styles into four theoretical dimensions: Dominance, Influence, Steadfastness, and Compliance. Previous validity studies indicate that the Personal Profile System correlates significantly with other personality instruments, such as the Myers Briggs Type Indicator, the 16PF, and the MMPI (Kaplan & Kaplan, 1982).

The Perceptual Learning Style workbook assesses learning style along three dimensions: auditory, visual, and kinesthetic. The Cognitive Thinking Style workbook assess information processing style along four dimensions: Literal Thinking, Intuitive Thinking, Theoretical Thinking, and Experiential Thinking. The Career Choice workbook uses the same personality style dimensions as in the Personality Style workbook, but assesses them within a work setting.

The *Student Adaptation to College Questionnaire* (Baker & Siryk, 1989) was administered in October of 1998 to assess how well the students were adjusting to college life. This instrument has been established as a reliable and valid indicator of student adaptation to the college environment. It contains four subscales and a full scale score. The subscales include academic adjustment, social adjustment, personal emotional adjustment, and attachment to the institution.

Evaluation forms were designed in consultation with the publisher to be administered at the end of each Career Quest class session (see Appendix A). A course evaluation form was designed for the purposes of this study, in consultation with the publishers (see Appendix B). This evaluation form also contained 4 items which had been adapted from the *Career Factors Inventory* (Chartrand, Robbins, & Morrill, 1997), a reliable and valid instrument designed to assess the level of students' readiness to choose a career.

Procedure

Instructors who had been randomly assigned to include Career Quest in their course used four class sessions in early September 1998 to introduce the materials and assist students in completing the inventories and interpreting their results. These instructors had received a full day of training by a Career Quest trainer in August 1998 and had an instructor's guide to help them plan class activities around the material. At the end of each Career Quest class session, students completed a brief questionnaire asking them to give feedback about the helpfulness of the material and the class session (see Appendix A). Instructors who were not randomly assigned to the Career Quest condition continued to teach the course the same way it had been taught for the past four years, using a common syllabus and common texts.

In October of 1998 all first-year students participating in the study completed the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1989). In addition, residence hall directors contacted each student individually if their SACQ indicated that they were experiencing difficulty adjusting to college, and a retention contact report form was filed with the project director (see Appendix C). At mid-term all students in all sections of the course created a personal success plan which outlined their strengths and weaknesses and established goals for their first year of college. At the end of the semester, a course evaluation was given to all students in both conditions, to assess the outcomes of the course and to test for any significant differences in outcomes for the Career Quest participants (Appendix B). In the Spring of 1999 Career Quest instructors contacted all their students to conduct a follow-up interview on how students were using the information gained from Career Quest. Seventy-two students (46.5%) who had participated in the Career Quest sessions came in for a follow-up interview and provided feedback using a special form prepared for that purpose (see Appendix D). In the Fall of 1999 the enrollment status of each student was obtained to ascertain the success of Career Quest as a retention aid.

Results

Student Feedback

Student feedback was obtained via a questionnaire administered at the end of each Career Quest session. Items were stated positively and students were asked to indicate their level of agreement using a 7-point Likert scale. Table 1 lists the mean score for each item, along with the percentage of students rating the item very high (6 or 7) or very low (1 or 2). In addition, an analysis of variance was conducted on each item response to determine if the instructor was a significant factor in the students' scores. Several items had significant differences, depending on the instructor the student had, and those items are designated by an asterisk in the table. Students were most positive about the following aspects of the Personality Style session: a) the material was easy to understand, b) the workbook was easy to use, c) the professor was enthusiastic about the material, and d) the professor made the class interesting. They agreed the least with the following: a) I have gained new insights about myself, b) I have received insights on how to relate to others who have different styles than my own, c) I am aware of how other people's styles affect me, and d) I can identify the personality styles of others.

Table 2 outlines the student feedback for the Perceptual Learning Style session. Students were most likely to agree with many of the same items as in the Personality Style session, namely: a) the material was easy to understand, b) the workbook was easy to use, c) the professor was enthusiastic about the material, and d) the professor made the class interesting, but they also gave a high rating to the item "I am aware that my professors' teaching styles may not match my learning style." They were least likely to agree with the following: a) I can identify the learning styles of others, b) I enjoyed the material, and c) the content was interesting.

In the assessment of the Cognitive Thinking Style session assessment (see Table 3), students were most likely to agree with the same items as in previous sessions, but also with the statement, "I recognize that there are strengths and limitations of my own thinking style." They were least likely to agree with the following: a) I can identify the thinking styles of others, b) I have identified a way to improve how I learn, and c) I have gained new insights about myself.

The final class session assessed was on Career Choice. Again, students were most likely to agree with the same items as in previous sessions, but also agreed strongly with the statement, "I am aware of careers or jobs that match my personality style." There were no items which had low agreement ratings in this session. Appendix E

contains a list of student responses to the questions, "What was the most helpful thing you learned today?" and "What, if anything, would you change about today's class session?"

Reliability and Validity of the Career Quest Materials

Test-Retest Reliability

Reliability is a pre-requisite for a valid testing instrument. To assess reliability as consistency over time, students' responses to the Personality Style Assessment were compared to their responses on the Career Choice Assessment given two weeks later, since the Career Choice workbook also assesses the same personality dimensions as were assessed in the first session with the Personality Style workbook. Students' two highest styles were recorded, and 49.3% of the students' styles remained exactly the same over the two-week period, 20.9% had the same top two styles, but in reverse order, 23.1% of the students had the same top style but their second style had changed, and 8.3% of the students had no agreement in their styles over the two-week period. Thus, 72.4% of the students' top personality style remained constant over that time period, and another 20.9% changed their top style to become their second style. This indicates an acceptable level of reliability, since chance alone would indicate that only 25% would maintain their top style over time and only 6% would maintain both the top and second styles over time.

Validity of the Career Quest Instruments

The validity of any instrument can be determined in a number of ways, but basically is a determination of whether or not the instrument measures what it claims to measure and is able to accurately predict current or future behavior. There were several measures that were used to assess the predictive validity of the Career Quest instruments. Career Quest claims four major outcomes that students will experience as a result of participating in the program: 1) improved study skills, leading to higher grades, 2) better adjustment or acclimation to college life, 3) higher confidence in their ability to make career choices, and 4) higher levels of student retention.

To test the claim that participating in the Career Quest program would lead to higher grades, the first-semester GPAs of students who participated in Career Quest were compared to those students who did not participate. After controlling for high school GPA and SAT/ACT score upon college entrance, an analysis of variance indicated a significant difference in first-semester GPA ($F=3.934$; $p < .05$), but no significant difference in cumulative GPA for the first year ($F=3.498$; $p = .08$). Students participating in Career Quest had an average first-semester GPA of 2.85, while those who did not participate had an average GPA of 2.64. Career Quest participants had an average first-year cumulative GPA of 2.77 and non-participants had an average of 2.55.

To test the claim that students who participate in Career Quest will become better acclimated to college life, the scores of Career Quest participants on the Student Adaptation to College Questionnaire (SACQ) were compared to the non-participants via a t-test. The SACQ was administered approximately two weeks after the last Career Quest session. As shown in Table 5, there were no significant differences between Career Quest participants and non-participants on any of the scales of the SACQ or on the total scale scores.

To test the claim that students who participate in Career Quest will be more confident as they make career choices, four items were adapted from the *Career Factors Inventory* (Chartrand, Robbins, & Morrill, 1997) and included in the final course evaluation given to all students. A t-test was conducted to determine if there was a significant difference in the responses of students who had participated in Career Quest, compared to those who had not. As shown in Table 6, there were no significant differences in the scores of Career Quest participants and non-participants.

Finally, to test the claim that participating in Career Quest would have a significant impact on retention, the first-to-second-year retention rates of Career Quest participants were compared to the rates of non-participants using a Chi-square analysis. Of the 155 students who participated in Career Quest, 118 were retained after one year (76.1%); of the 170 students who did not participate, 111 were retained (65.3%), and that difference was significant ($p < .05$).

Outcomes

The final course evaluation contained thirty items which described possible outcomes for the course. A t-test was conducted to compare the responses of Career Quest participants to non-participants. There were a number of significant differences in the responses of these two groups, as can be seen in Table 7. Career Quest participants were significantly more likely to agree that they had learned to set realistic goals, understood their style of taking in and processing information, could identify their personality style, could identify characteristics of their style of thinking, knew their learning style, and knew how to adapt to classes that are not ideal for their thinking style.

In addition, a t-test was used to explore the differences in instructor ratings between the CQ participants and non-participants. Even though instructors had been randomly assigned to conditions, CQ participants rated their instructors significantly more positively in the areas of advising, availability when the student needed help, helpfulness in discussing the personal success plan, enthusiasm for the course, and the overall quality of class discussions and activities (see Table 8).

The final impact of Career Quest was assessed by examining the differences in retention rates of those who participated in the Spring 1999 follow-up interview compared to those who did not participate. Of the 155 Career Quest participants in the Fall, 72 came in for the follow-up interview in the Spring (46.4%). Of these, 60 were retained the following Fall (83.3%) and 12 were not (16.7%). These figures were compared to those who did not come in for

follow-up interviews. Of those 85 students, 61 were retained (71.8%) and 24 were not (28.2%). A Chi-square analysis indicated that this difference was not statistically significant ($\chi^2 = 2.56, df = 1; p = .11$).

Feedback from the students who came in for the follow-up interview in the Spring indicated that 50.7% of the students found Career Quest to be helpful in more than one way; 25.4% said Career Quest helped them a little, and 23.9% said Career Quest did not help them at all. Those who claimed little or no benefit from participating in Career Quest also claimed that they already knew this information about themselves before coming to college.

Discussion

Career Quest claims to be a valid and reliable tool for helping first-year students become acclimated to college, improve their study habits and thus achieve higher grades, become more confident in choosing a career, and be retained by their college. The statistical evidence gathered in this controlled study indicates that it accomplishes these objectives.

The Personality Style appears to be a reliable indicator of students' personality over a two-week period, as indicated by a rate of 49.3% exact agreement of the top two personality styles and 72.4% agreement on the top style. Thus, the test-retest reliability of the Personality Style assessment is acceptably high.

Two of the four predicted outcomes were confirmed in this study, indicating some preliminary evidence for predictive validity. First, students who participated in Career Quest did indeed achieve significantly higher GPAs in their first semester of college. This difference was significant even after controlling for high school grades and SAT/ACT scores. It appears quite possible that CQ students learned ways of maximizing their strengths as learners, which resulted in better grades. Unfortunately, this difference did not continue for the entire first year. Secondly, students who participated in Career Quest also were retained at a significantly higher rate than the non-participants (76.1% vs. 65.3%; $p < .05$). Thus the claim that Career Quest is an effective retention tool appears to have considerable merit.

However, the remaining two predicted outcomes were not confirmed by this study. It was expected that CQ participants would be better acclimated to college at mid-term than those who had not participated in Career Quest. However, an examination of students' scores on the *Student Adaptation to College Questionnaire*, administered about two weeks after the last CQ session, indicated no statistically significant differences in any of the scale scores or the full score on the SACQ. It is quite possible that acclimation to college is a far more complex phenomenon that cannot be significantly impacted by only four class sessions. In many of the student comments about the CQ sessions, it was noted that they wished they could have spent more time discussing the implications of their scores, particularly how

they could understand others better. It was also evident in the final course evaluation that CQ students did not feel more comfortable about relating to or understanding those with different styles.

A second major predicted outcome of Career Quest was that students who participated would feel more confident about choosing a career. Career Quest is thought to help students' readiness for making career choices. However, all the career items on the final course evaluation indicated no significant differences in the confidence levels, knowledge, or readiness for career choices of CQ participants versus non-participants. Again, it could be that one class session devoted to career choices is simply not enough to make a significant impact. In fact, many students expressed frustration with the lack of depth in the career choice session. I would recommend that if an instructor expects Career Quest to enhance students' confidence and readiness for career choices, then much more time needs to be spent on the career choice session, and perhaps additional expertise brought in, such as the director of the Career Center.

There were additional student outcomes realized by participating in Career Quest which deserve mention. Students reported better goal-setting skills, an understanding of their thinking style and the ability to identify its characteristics and adapt to classes that are not ideal, a knowledge of their learning style, and an ability to identify their own personality style. These are certainly important outcomes, and indicate that the self-assessment process used by Career Quest was effective in providing knowledge to students about themselves. Most importantly, students' perception of their instructor as an advisor who was readily available to help them when needed and who helped with the goal-setting process in the personal success plan was significantly impacted by participating in Career Quest. Perhaps one of the major benefits realized by using this program is within the advising relationship.

However, there were a number of expected outcomes which students did not report. Specifically, students did not seem to be able to apply what they had learned about themselves; for instance, they reported no significant difference from non-participants in recognizing how to study in a way most helpful to their learning style, in identifying the environment in which they learn best, in adapting to professors whose teaching style differs from their learning style, in understanding their strengths and challenges as a learner, in creating an optimal learning environment, in identifying others' thinking styles, in understanding people who are different, in recognizing personality styles that are different, in understanding why different personality styles can come into conflict, or in being aware of their strengths and weaknesses in relating to others. This lack of significant difference could be due to two factors: first, it could be that students in the sections not using CQ learned these skills just as effectively through the course, even though the instructor did not use CQ materials. The non-participating sections used a common syllabus which included readings in the areas of intellectual wellness (critical thinking, learning styles, etc.) and socioemotional wellness (family issues,

gender and racial reconciliation, etc.), even though no self-assessment processes were used. It could be that class discussions on these topics resulted in changes in the non-participants. The other possibility is that the items were worded in such a way as to produce a social desirability effect in all students. For example, even though students may not have specifically learned about their strengths and challenges as a learner in the course, most students might be reluctant to disagree with the statement, "I understand my strengths and challenges as a learner." Certainly, we all would like to think we are aware of our strengths and challenges, so perhaps the lack of significant difference on items such as these is simply due to a social desirability effect. Given the numerous student comments that they "knew all this before" participating in Career Quest, it is also possible that the self-assessment process was too simplistic and repetitive of students' previous experiences.

Student feedback about Career Quest indicated many positive experiences for most students, although there were numerous negative comments as well. The major complaints seemed to be a negative reaction to surveys in general. A very vocal minority of students regularly complained about filling out so many questionnaires, and seemed to feel they were repetitive and simplistic. The item, "I liked learning about myself" was answered with an "agree or strongly agree" by about two-thirds of the participants, indicating that about one-third of our students did not enjoy the process itself, regardless of the materials used. Their responses to this item were significantly correlated with how interesting they found the content, and significantly affected their responses to many of the other items. It is perhaps worth noting that up to one-third of college students may not enjoy the self-assessment process, no matter what instrument is used.

Of the students who enjoyed learning about themselves through the surveys, the major complaint was that not enough class time was devoted to discussing the results and their implications. As a result, I would suggest that more time in the semester be devoted to Career Quest, if one chooses to use it in a course. Students need time to digest the information thoroughly, they need multiple examples and exercises to help them apply it to their own life circumstances, and they need time to discuss their results with others.

One major limitation of the present study is the amount of time devoted to Career Quest. Four class sessions does not appear to be a sufficient amount of time for the benefits of the program to be fully realized. This was evident in student comments, as well as in the statistical results of the study. It would seem that the major benefits of Career Quest could be realized more adequately over a longer period of time, such as 6-8 sessions or perhaps even a semester.

There were several things we learned from this study which will be of help to us in the future. First, we realized that the instructor was a powerful variable. Even though instructors were randomly assigned and neither

condition had a disproportionate number of excellent teachers, it was obvious from the student ratings that the instructor's enthusiasm for Career Quest directly affected the students' enthusiasm for it. Thus, it is important for all instructors to be carefully chosen and thoroughly trained, so that they are well prepared and enthusiastic about the material.

Secondly, we realized that we surveyed our students to death. Students felt they were being assessed entirely too frequently and in too much detail. While this was necessary for this study, it could easily have impacted students' enthusiasm for the material. Thus, it is important to keep the assessment process as brief as possible or to use other methods of assessment besides survey instruments.

Thirdly, we realized that not enough attention was given to the application of what was learned from the Career Quest self-assessments. Many instructors did not care for the exercises in the instructors' guides, seeing them as too simplistic for college students, yet it was apparent that not all classes discussed the results thoroughly. Students appeared to need more time to discuss and understand what the results meant for them; in particular, they needed more practice in identifying others' styles and in learning how to work with others whose styles were different. Thus, it is important that the activities used along with Career Quest, if it is used in a course, provide stimulating and engaging ways for students to learn to apply the results to their lives. A more thorough, comprehensive, and college-level instructor's guide and student workbooks would facilitate this process.

In conclusion, we found the Career Quest materials to be of significant benefit to our students' academic success and retention, even though the program did not significantly impact our students' adjustment to college or their confidence in choosing a career. Students seemed to learn the most from the Cognitive Thinking Style assessment and appeared to need much more help through class discussion and activities in the sessions on personality style and career choice. One of the major benefits of using the program was in a significantly more positive advising experience for those students who participated. The process of self-assessment which leads to students' discovering their gifts and strengths and learning to relate to others who are different can be an invaluable aid to first-year students' success and ability to persist to graduation.

References

- Baker, R., & Siryk, B. (1989). *Student Adaptation to College Questionnaire*. Los Angeles: Western Psychological Services.
- Chartrand, J., & Robbins, S., & Morrill, W. (1997). *Career Factors Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Geier, J., & Downey, D. (1982). *Library of Classical Patterns*. Minneapolis: PSII.
- Kaplan, S., & Kaplan, B. (1982). *A Study of the Validity of the Personal Profile System*. New Castle, PA: The Institute for Motivational Living.
- Kulkin, S., & Turose, E. (1998). *Career Quest Freshman Acclimation and Retention Program*. New Castle, PA: The Institute for Motivational Living.

Table 1

Student Responses to the Personality Style Assessment Session

Item	Mean Rating	% rating 1 or 2	% rating 6 or 7
I have a better understanding of the strengths and limitations of my personality style.	5.21*	4%	48%
I have gained new insights about myself.	4.93	5.4%	38%
I can identify the personality styles of others.	5.07	4.4%	42.7%
I am aware of how other peoples' styles affect me.	5.03	2.6%	36.7%
I have received insights on how to relate to others who have different styles than my own.	5.00*	4.7%	38.6%
The workbook was easy to use.	6.26	.7%	82.7%
The material was easy to understand.	6.37	.7%	88%
The content was interesting.	5.71*	4.2%	66.6%
I enjoyed the material.	5.49*	4.1%	58.7%
I liked learning about myself.	5.66	2.8%	66.4%
The professor made the class interesting.	6.19	0	82.6%
The professor was enthusiastic about the material.	6.21*	0	81.4%

* = statistically significant difference in student responses depending on the instructor ($p \leq .05$)

Table 2

Student Responses to the Perceptual Learning Style Assessment Session

Item	Mean Rating	% Rating 1 or 2	% Rating 6 or 7
I have identified my own learning style.	5.79	4.2%	66%
I have learned some strategies to enhance learning.	5.44	5.4%	53.3%
I am aware that my professors' teaching styles may not match my learning style.	6.07	0	79.7%
I can identify the learning styles of others.	5.04	5.4%	38.1%
I can create an "ideal learning environment."	5.43	.7%	54.1%
The workbook was easy to use.	6.22	.7%	81.1%
The material was easy to understand.	6.27	0	84.4%
The content was interesting.	5.34	6.8%	49.3%
I enjoyed the material.	5.26	7.4%	50%
I liked learning about myself.	5.73	2.7%	66.9%
The professor made the class interesting.	6.15*	.7%	83.8%
The professor was enthusiastic about the material.	6.01*	.7%	76.4%

* = statistically significant difference in student responses depending on the instructor ($p \leq .05$)

Table 3

Student Responses to the Cognitive Thinking Style Assessment Session

Item	Mean Rating	% Rating 1 or 2	% Rating 6 or 7
I understand the general characteristics of my thinking style.	5.91	.7%	72.8%
I recognize that there are strengths and limitations of my own thinking style.	6.03	.7%	77%
I have gained new insights about myself.	5.31*	5.4%	53.1%
I have identified a way to improve how I	5.09	6.1%	43.9%
I can identify the thinking styles of others.	5.07	2.7%	39.9%
The workbook was easy to use.	6.18	1.4%	81.6%
The material was easy to understand.	6.17	1.4%	82.3%
The content was interesting.	5.46	3.4%	57.2%
I enjoyed the material.	5.40*	4.1%	53.1%
I liked learning about myself.	5.60	4.1%	62.6%
The professor made the class interesting.	6.03	0	76.2%
The professor was enthusiastic about the material.	6.02*	0	74.9%

* = statistically significant difference in student responses depending on the instructor ($p \leq .05$)

Table 4

Student Responses to the Career Choice Assessment Session

Item	Mean Rating	% Rating 1 or 2	% Rating 6 or 7
I have learned some information about the 21st century workforce requirements.	5.52	.7%	56.2%
I am aware of careers of jobs that match my personality style.	5.80*	1.4%	67.9%
I understand my general career preferences.	5.69	2.8%	63.9%
I can consider carefully what careers will best suit my style.	5.66	1.4%	65.3%
I have identified skills and abilities for my career preferences.	5.54*	1.4%	59%
The workbook was easy to use.	6.10	1.4%	77.7%
The material was easy to understand.	6.21	1.4%	81.1%
The content was interesting.	5.66	4.2%	60.2%
I enjoyed the material.	5.47	4.9%	56.7%
I liked learning about myself.	5.73	2.8%	66.2%
The professor made the class interesting.	6.09	0	75.6%
The professor was enthusiastic about the material.	6.09	.7%	75.6%

* = statistically significant difference in student responses depending on the instructor ($p \leq .05$)

Table 5

T-Test Comparisons of the SACQ Scale Scores of Career Quest Participants versus Non-Participants

SACQ Scale	CQ Participants' Mean Score	Non-Participants' Mean Score	df	t
Academic Adjustment	145.4	143.7	228	.44 (N.S.)
Attachment	107.7	107.0	228	.25 (N.S.)
Personal/Emotional Adjustment	91.5	89.8	228	.62 (N.S.)
Social Adjustment	137.3	134.4	228	.81 (N.S.)
Full Scale	431.1	430.3	228	.08(N.S.)

Note: N.S. indicates non-significant result

Table 6

T-Test Comparison of Career Items Between Career Quest Participants and Non-Participants

Item	Participants' Mean Score	Non-Participants' Mean Score	df	t
In thinking about a career, I have examined my strengths and values.	5.34	5.27	270	.36 (N.S.)
I know several career possibilities that may be optimal for me.	5.24	4.92	270	1.57 (N.S.)
In the process of thinking about what career might be a good option for me, I have thought about what things are most important to me.	5.53	5.32	270	1.18 (N.S.)
I feel confident when I think about deciding on a career and a major.	4.91	4.68	270	1.05 (N.S.)

Note: N.S. indicates non-significant result

Table 7

T-Test Comparison of Student Outcomes Between Career Quest Participants and Non-Participants

Item	Participants' Mean Score	Non-Participants' Mean Score	df	t
I have learned to set realistic goals this semester as a result of this class.	4.82	4.37	269	2.21 *
I understand my style of taking in and processing information.	5.26	4.73	269	2.76**
I recognize how to study in a way most helpful to my learning style.	4.97	4.82	270	.83 (N.S.)
I have a better understanding of people who are different from me.	5.16	4.98	270	.99 (N.S.)
I can identify my personality type or style.	5.59	5.17	270	2.19 *
I can identify the environment in which I learn best.	5.43	5.14	270	1.60 (N.S.)
I can recognize personality types or styles different from my own.	5.13	5.07	270	.32 (N.S.)
I know how to adapt to professors whose teaching style differs from my learning style.	4.69	4.34	270	1.94 (N.S.)
I understand my strengths and challenges as a learner.	5.26	5.32	270	-.37 (N.S.)
I can identify others' style of thinking.	4.60	4.65	270	-.29 (N.S.)
I know how to create an optimal learning environment for myself based on the way I process information.	4.64	4.69	270	-.25 (N.S.)
I can identify characteristics of my style of thinking.	5.21	4.85	270	1.99 *
I understand why different personality styles can come into	5.52	5.23	270	1.62 (N.S.)

conflict.

I know my learning style.	5.62	4.94	270	3.51 ***
I know how to adapt to classes that are not ideal for my thinking style.	4.69	4.32	270	2.02 *
I am aware of my strengths and weaknesses in relating to others.	5.35	5.28	270	.41 (N.S.)

*** $p < .001$

** $p < .01$

* $p < .05$

N.S. = not significant

Table 8

T-Test Comparison of Instructor Ratings Between Career Quest Participants and Non-Participants

Item	Participants' Mean Score	Non-Participants' Mean Score	df	t
The way the instructor taught the course.	5.52	5.18	270	1.75 (N.S.)
The total advising experience with your instructor.	5.68	4.65	270	4.45 ***
Your instructor's preparation for class.	5.96	5.69	270	1.57 (N.S.)
Your instructor's availability when you needed help.	6.03	5.46	270	2.95 **
The helpfulness of your instructor in discussing your personal success plan.	5.64	5.17	270	2.23 *
Your instructor's concern for your success.	5.75	5.54	270	1.10 (N.S.)
Your instructor's enthusiasm for the course.	5.99	5.48	270	2.81 **
The overall quality of class discussions and activities.	5.70	4.54	270	5.99 ***

*** $p < .001$

** $p < .01$

* $p < .05$

N.S. = not significant