Abstract

STUDENT-FACULTY INTERACTIONS AND COLLEGE ADJUSTMENT AS PREDICTORS OF ACADEMIC ACHIEVEMENT

by

Leigh Hileman

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Chair: Dr. Michael Brown

Major Department: School Psychology

Student-faculty interactions and college adjustment were analyzed as predictors of academic achievement. Participants included undergraduate freshmen enrolled in an Introduction to Psychology course (N = 86) from a large university in the southeastern United States. It was hypothesized that student-faculty interactions and college adjustment would predict academic achievement, and that student-faculty interactions would be a greater predictor than college adjustment. A hierarchical multiple regression model was analyzed and the model was not significant as a predictor of academic achievement. Further analysis determined that a significant correlation existed between college adjustment and academic achievement. Together,

these findings suggest that student-faculty interactions and college adjustment combined are not predictors of academic achievement. However, college adjustment was a significant contributor to academic achievement within this study.

Keywords: student-faculty interactions, college adjustment, undergraduate freshmen, academic achievement

STUDENT-FACULTY INTERACTIONS AND COLLEGE ADJUSTMENT AS PREDICTORS OF ACADEMIC ACHIEVEMENT

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by

Leigh Hileman

APPROVED BY:

DIRECTOR OF THESIS: _____

Michael B. Brown, Ph.D.

COMMITTEE MEMBER: _____

Jennifer S. Kazmerski, Ph.D.

COMMITTEE MEMBER: _____

Larry M. Bolen, Ph.D.

INTERIM CHAIR OF THE DEPARTMENT OF PSYCHOLOGY:

_____

Susan L. McCammon, Ph.D.

DEAN OF THE GRADUATE SCHOOL:

_____

Paul J. Gemperline, Ph.D.

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CHAPTER I: INTRODUCTION

Within the past three decades the percentage of high school graduates immediately enrolling at a college or university has steadily increased. In 2011, 68.3% of the 2011 high school graduates were enrolled at a college or university, and 91.9% of these students were enrolled full-time (United States Department of Labor [USDL], 2012). Of these freshmen, almost 60% were enrolled in four-year colleges or universities (USDL, 2012). In 1980 approximately 50% of graduating high school students were enrolled at a college or university the following Fall term (USDL, 1993). However, while the percentage of high school graduates enrolled in postsecondary education is promising, students' progress in college is not.

Two widely used indicators of progress are retention and graduation rates. First year retention is defined as the percentage of incoming freshmen who are enrolled at a college or university the following fall semester. Graduation rates measure the percentage of students who earn a degree within a certain number of years. Graduation rates typically measure the percentage of first-time degree seeking full-time students earning their degree within four, five, or six years after initial enrollment. The U.S. Department of Education (USDE) began to report first-year retention rates for the 2008 cohort. The most recent statistic, retention for the incoming 2009 freshman class, was 72% for full-time students and 44% for part-time students (USDE, 2012). The USDE followed the 2004 undergraduate cohort from 6,172 institutions across the United States. The report concluded that only 31.3% of first-time degree seeking full-time students graduated with a bachelor's degree within four years, 50.6% graduated within five years, and 56% graduated within six years (USDE, 2012).

Research on Academic Achievement in College

Many variables effect academic achievement in college. Motivation (Nonis & Hudson, 2006), social support (DeBerard, Spielmans, & Julka, 2004), coping strategies and social support (DeBerard et al., 2004), academic self-efficacy (Chemers, Hu, & Garcia, 2001), engagement in campus activities, and the amount of time spent studying (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008) have been found to effect college grade point average (GPA). Achievement in high school is related to college GPA (DeBerard et al., 2004; Nonis & Hudson, 2006). Student-faculty interaction is a variable emerging in the literature base as an additional variable that effects academic achievement (Delaney, 2008; Endo & Harpel, 1982; Komarraju, Musulkin, & Bhattacharya, 2010; Kuh & Hu, 2001; Thompson, 2001), while college adjustment has been found to affect student-faculty interactions (Delaney, 2008; Kuh & Hu, 2001), retention (Gerdes & Mallinckrodt, 1994), social support (Friedlander, Reid, Shupak, & Cribbie, 2007), and academic self-efficacy (Chemers et al., 2001). Social support and academic self-efficacy are variables that are known to effect college GPA; however, no studies in the literature have addressed the effect of college adjustment on academic achievement.

Research on Student-Faculty Interactions and Academic Achievement

There are two types of student-faculty interactions: informal and formal. Informal interactions, in which an academic issue is not the main focus, have been associated with increased student satisfaction and increased general knowledge adequacy (Endo & Harpel, 1982). For example, an informal interaction would include a student and professor discussing life events or interests. Formal interactions occur when a student and faculty interact for career or academic concerns. Examples of formal interactions include a student and professor discussing class assignments or readings, test grades, and vocational goals. The focus of research in the area of student-faculty interactions began with the examination of the quantity of

interactions. Frequency counts were often used in methodologies to represent an overall numerical amount of interactions college students had with faculty. Research has evolved to study not only the quantity, but the quality of these interactions (Komarraju, Musulkin, & Bhattacharya, 2010) which affects both academic achievement and other variables that effect GPA (i.e., social motivation and academic self-concept).

College students have rated having a relationship with their professor as one of the top three most desirable characteristics of a hypothetical ideal instructor (Sanchez, Martinez-Pecino, Rodriguez, & Melero, 2011); however, both past and recent research has found that student-faculty interaction was a neglected area during college. Snow (1973) found that approximately one-third of college juniors and seniors, even within their departments, have had no significant interactions with faculty members. Fusani (1994) found that half of students surveyed had interacted with their professors only one or two times, and 23 percent of students had never interacted with their professors outside of the classroom. Cotton and Wilson (2006) found that it is not common for students, especially freshmen and sophomores, to interact with faculty members. Keup (2007) also found student interactions with faculty members to be a neglected area during the first year of college. Students are more likely to interact with their professors outside of the classroom if they are matched in gender and view the professor as credible and empathetic (Nadler & Nadler, 2001).

Research on College Adjustment and Academic Achievement

College adjustment is the student's ability to acclimate socially and academically to campus life. Participation in student clubs and organizations, study groups, and campus activities may increase a student's level of social adjustment which, in turn, may increase a feeling of college match and personal adjustment. Colleges and universities are well aware of

this and provide multiple opportunities for students to become engaged on campus, including clubs, activities, and student centers. College adjustment has been studied as a predictor variable of various outcomes related to academic achievement such as motivation (Nonis & Hudson, 2006), academic self-efficacy (Chemers, Hu, & Garcia, 2001), student-faculty interactions (Delaney, 2008; Kuh & Hu, 2001), and social support (Friedlander, Reid, Shupak, & Cribbie, 2007). Additionally, college adjustment has been studied as an outcome variable of perceived discrimination and prejudice towards minority students (Nora & Cabrera, 1996) and psychological separation (Lapsley, Rice, & Shadid, 1989). College adjustment has not, however, been studied as a predictor variable of academic achievement.

Statement of Problem

The need for effective educational strategies that promote college persistence and graduation increases as does the necessity of obtaining a college degree. Carnevale, Cheah, and Strohl (2012) of Georgetown University's Center on Education and the Workforce compiled unemployment data based upon degree level and found that while 8.9% of college graduates are unemployed, 22.9% of workers whose highest education level is a high school diploma are unemployed. An even higher rate of unemployment, 31.5%, exists for those who did not finish high school (Carnevale et al., 2012). In addition to unemployment, those with college degrees have a higher earning potential than workers with only a high school education (USDE, 2011). In fact, workers with a bachelor's degree earn at least $15,000 to $18,000 more than their high school educated counterparts (USDE, 2011). Due to a rising need for a bachelor's degree for the workforce educators need to address factors leading to academic achievement and college graduation.

Research Questions

Previous research is limited in regards to the relationship between student-faculty interactions, college adjustment, and academic achievement. There has been more research conducted in the area of student-faculty interactions and academic achievement than the area of college adjustment and academic achievement. While promising results have been found in studies that have looked at student-faculty interactions and academic achievement, studies about the relationship between college adjustment and academic achievement have yet to be conducted. Additionally, research has only begun to examine the quality of student-faculty interactions. The majority of research on student-faculty interactions has used quantity, measured by self-reported frequency counts, as a definition of such interactions. More research about the quality of these interactions is needed in addition to research about the effect of college adjustment on academic achievement. With an increasing demand for college graduates within the work force, research must focus on variables that affect academic achievement in college.

The purpose of this study is to examine relationships between student-faculty interactions, college adjustment, and academic achievement. It is hypothesized that:

1) Student-faculty interaction and college adjustment will predict first-year academic achievement.

2) Student-faculty interaction will be a greater predictor variable of academic achievement than college adjustment.

CHAPTER II: LITERATURE REVIEW

The USDL (2012) estimates that 68.3% of the 2011 high school graduating class was enrolled at a college or university during the following Fall semester. Of these students, 91.9% of them were enrolled full-time, and almost 60% were enrolled at a four-year college or university (USDL, 2012). The percentage of high school graduates immediately enrolling in postsecondary education has increased in recent decades – in 1980 only half of graduating high school seniors were enrolled at a college or university the following Fall semester (USDL, 1993). While the increase in high school students furthering their education at the college level is promising, the end results are not. The two most commonly used indicators of college progress, retention and graduation rates, show that although more graduating high school seniors are enrolling in college not all return after their freshman year and even less graduate within four years of initial enrollment. The most recent retention statistic, data from the incoming 2009 freshman cohort, was 72% for full-time students and 44% for part-time students (USDE, 2012). This indicates that over 25% of undergraduate full-time students and 55% of part-time students dropped out of college after their first year (USDE, 2012).

In terms of graduation rates, the USDE followed the 2004 undergraduate cohort from over 6,000 colleges and universities across the United States. The report concluded that only 31.3% of first-time degree full-time students graduated with a bachelor's degree within four years, 50.6% graduated within five years, and 56% graduated within six years of initial enrollment (USDE, 2012). Of the over two-thirds of graduating high school seniors that enroll in college less than one-third will graduate on time (USDE 2012), and more than a quarter of them will drop out after their freshman year (USDE, 2012). In today's economic condition, in which unemployment is higher for workers without a bachelor's degree (Carnevale, Cheah, & Strohl,

2012) all efforts to increase college persistence and graduation should be employed. In fact, the unemployment rate for workers without a bachelor's degree is 22.9% while the unemployment rate for workers with a college education is 8.9% (Carnevale et al., 2012). Typically, the goal of college enrollment is college graduation. Therefore, researchers began to study the variables that effect factors of college graduation, including academic achievement.

Student-faculty interaction is an emerging variable that effects academic achievement (Delaney, 2008; Endo & Harpel, 1982; Komarraju, Musulkin, & Bhattacharya, 2010; Kuh & Hu, 2001). College adjustment has been found to effect social support (Friedlander, Reid, Shupak, & Cribbie, 2007) and academic self-efficacy (Chemers, Hu, & Garcia, 2001), both of which are variables known to effect college GPA. Additionally, college adjustment has been found to effect student-faculty interaction (Delaney, 2008; Kuh & Hu, 2001) and retention (Gerdes & Mallinckrodt, 1994).

The Tinto Model of Student Persistence (Tinto, 1997) states that, to persist throughout college, students must integrate both formal and informal academic and social systems. The formal academic system is academic achievement; the informal academic system consists of student-faculty interactions. The formal social system includes extracurricular activities and student clubs/organizations; the informal social system includes peer-group interactions outside of an academic setting. All of these factors combine to form an overall model of retention and can increase or decrease the odds of a student persisting to degree attainment. The integration into formal and informal academic and social systems combines with a student's pre-entry characteristics (e.g., family background, prior schooling, and their personal skill sets), initial goals and commitments, institutional experiences (within both the academic and social arenas), student effort level, educational outcomes (e.g., grades, passing/failing a course, etc.), and final

goals and commitments. The outcome of the model is student persistence. Figure 1 presents a visual display of Tinto's model.

Student-Faculty Interaction

Delaney (2008) studied the associations between student-faculty interactions and student characteristics, citizenship, academic performance, educational aspirations, perceived academic growth, academic adjustment, and satisfaction. Your First College Year (YFCY) reports from 1,500 undergraduate freshmen were used to examine these associations. Data were analyzed using bivariate and regression analysis. Regression analysis was used to analyze the relationship between student-faculty interaction, academic performance, and satisfaction. Bivariate analysis, including *t*-tests, correlation, and Chi-square analysis, was used to examine all other variables. Results indicated that increased student-faculty interactions, measured by frequency, were associated with statistically significant increased academic performance and analytical skills, critical thinking, diversity awareness, knowledge within one's field, and perceived growth in general knowledge (Delaney, 2008). In fact, student-faculty interaction accounted for 38% of the variance in participants' GPAs (Delaney, 2008).

Kuh and Hu (2001) explored the effects of student-faculty interaction on academic gains, academic effort, perceived academic gains, and overall college satisfaction. A sample of 5,409 full-time students from across the United States was randomly selected from a larger database of 54,488. Participants were enrolled at a variety of different institutions (i.e., research focused, liberal arts colleges, and doctoral universities). Student-faculty interaction and college satisfaction were measured by student responses on the College Student Experiences Questionnaire (CSEQ). The CSEQ is a self-report measure that utilizes a 4-point Likert scale ranging from "never" to "very often" as response options to a series of 13 questions about

Figure 1.

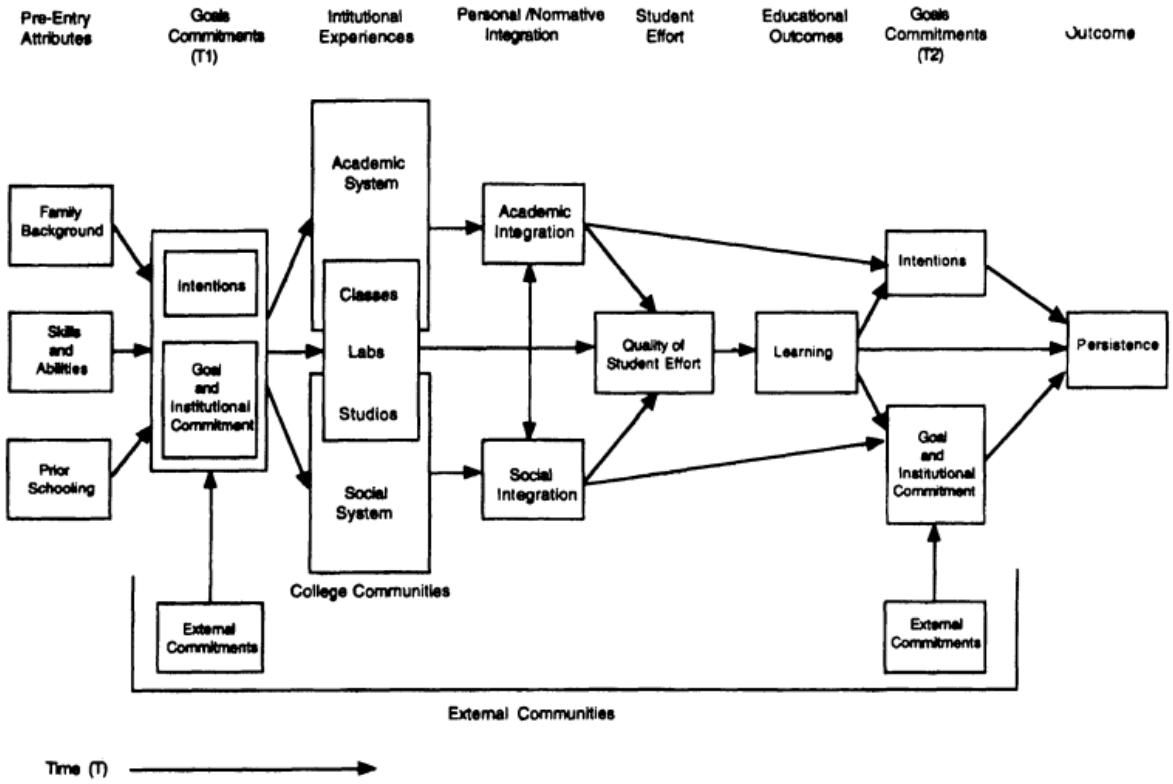

Figure 1. Tinto's Model of Student Persistence

Tinto, V. (1997). Classrooms as Communities: Exploring the Educational Character of Student Persistence, *The Journal of Higher Education, 68*, 599 – 623.

student-faculty interactions. These questions address various reasons for interacting with professors, such as discussing a paper or project and collaborating on research projects; however, the questions do not assess the quality of the interactions. Multiple regression analysis was used to analyze the data. Controlling for demographic characteristics, higher student-faculty interaction scores accounted for 48% of the variance in participants' academic gains (Kuh & Hu, 2001). Additionally, students who indicated higher amounts of out of classroom student-faculty interactions also had higher college satisfaction. Specifically, the increased interaction with faculty accounted for 25.5% of the variance in college satisfaction (Kuh & Hu, 2001).

Endo and Harpel (1982) studied the effect of student-faculty interactions and educational outcomes, including intellectual outcomes and academic achievement. Intellectual outcomes included general knowledge, problem solving skills, mathematics, public speaking ability, planning future academic careers, progress toward intellectual goals, and student participation in cultural activities. Upon entrance to college a total of 2,830 freshmen were given the Freshman Questionnaire and, upon graduation, 480 of those same students received a Graduating Students Survey. A total of 311 graduating college seniors responded and results were compared to their initial Freshman Questionnaire. The questionnaires measured student-faculty interactions as two categories: informal and formal. Both categories were measured by a self-report frequency count. Factors contributing to an overall frequency count of informal interactions included professors who encouraged continuing education after college, discussed a wide range of topics with the student, gave of academic advice, and provided extra assistance in the students' coursework. Factors contributing to an overall frequency count of formal interactions included professors who gave academic, career, and vocational counseling and how often professors advised students on academic topics, and advising students on vocational counseling. College

satisfaction was measured by a self-report scale that included individual satisfaction ratings for seven areas related to the construct: satisfaction with course selection, classroom facilities and equipment, variety of courses, course difficulty and satisfaction with overall academic experiences, quality of education, and their program. Academic achievement was measured by the participants' grade point average after graduation. Data were analyzed using a general least squares regression model, and results indicated that the frequency of formal student-faculty interaction was significantly negatively correlated to college satisfaction (Endo & Harpel, 1982). Results also indicated that the frequency of informal student-faculty interaction was significantly positively correlated with general knowledge adequacy and college satisfaction (Endo & Harpel, 1982).

Thompson (2001) studied the effects of informal student-faculty interaction and the perceived science and mathematics gains of community college students. The Community College Student Experiences Questionnaire (CCSEQ) was administered to a random sample of 5,276 students (Thompson, 2001); both full and part-time students were included in the sample. Student-faculty interactions were measured with an eight point scale that asked participants to rate the amount of time out-of-classroom interaction occurred. Science and mathematics gains were measured by self report. Regression was used to analyze the data, and a statistically significant effect on the frequency of informal student-faculty interactions and a perceived increase in science and mathematics was found (Thompson, 2001). Increased informal student-faculty interaction also had a statistically significant effect on the nature of students' effort in science (Thompson, 2001).

Using a frequency count of how often college students interact with their professors, Delaney (2008), Kuh and Hu (2001), Endo and Harpel (1982), and Thompson (2001) found that

student-faculty interactions are an important aspect of college life. At this point in the literature there is a shift from examining student-faculty interactions in terms of quantity to examining them in terms of quality. Komarraju, Musulkin, and Bhattacharya (2010) studied student-faculty interactions as predictors of student motivation, academic self-concept, and academic achievement. Participants included 242 freshmen undergraduate students. The Student-Professor Interaction Scale (SPIS) was used to measure the quality of student-faculty interactions and has items assessing several features of the interaction (i.e., advising, professor approachability, accessibility, caring attitudes, negative versus respectful interactions, and connectedness). The scale also includes a validity index, in which participants acknowledge the level of perceived importance of these interactions. Academic self-concept was measured by the Academic Self-Concept Scale, a measure in which students self-report confidence in the area of academic skills. Motivation, which included intrinsic, extrinsic, and amotivation, was measured by the Academic Motivations Scale. Academic achievement was measured by the participants' grade point average. Data were analyzed with correlation and regression analysis: the relationship between student-faculty interactions and academic achievement was first analyzed with Pearson *r*, and predictive relationships between student-faculty interactions and academic self-concept were computed utilizing a stepwise multiple regression analysis. Participants' academic achievement was significantly correlated with perceived approachability within the student-faculty interaction (Komarraju et al., 2010). This suggests that not only does the interaction itself have an effect on academic achievement, but the interpersonal qualities of professors are also important. Three qualities of student-faculty interactions accounted for 18% of the variance in the participants' academic self-concept: approachability, respectful interactions, and off-campus interactions (Komarraju et al., 2010).

Overall, student-faculty interactions have significant impacts on academic achievement in college. Delaney (2008) found that the frequency of these interactions accounted for 38% of the variance in participants' grade point averages. Kuh and Hu (2001) reported that more student-faculty interactions accounted for 48% of the variance in academic gains. Additionally, Endo and Harpel (1982) found that the frequency of student-faculty interactions was negatively correlated to college satisfaction and positively correlated with general knowledge adequacy and college satisfaction. Thompson (2001) found that the frequency of student-faculty interactions not only have an effect on students' perceived gains in science and mathematics courses, but also that increased informal student-faculty interaction had a significant effect on the nature of students' effort in science courses. In measuring qualitative traits of student-faculty interactions, Komarraju et al. (2010) found that three qualities of student-faculty interactions accounted for 18% of the variance in participant' academic self-concept: approachability, respectful interactions, and off-campus interactions. Additionally, academic achievement was significantly correlated with perceived approachability of the professor (Komarraju et al., 2010).

College Adjustment

In addition to studying student-faculty interactions and academic achievement, Delaney (2008) also investigated the relationship between college adjustment and the amount of student-faculty interactions. Using the same sample of 1,500 undergraduate freshmen a regression analysis was used to analyze participant responses from the Your First College Year (YFCY) surveys. Statistically significant differences between student-faculty interactions and academic adjustment were found, indicating that students who had a higher number of interactions with faculty members had higher academic adjustment (Delaney, 2008). Academic adjustment, as measured by the YFCY, includes the use of campus services, time management skills, adjusting

to collegiate academic demands, and understanding the expectations of their professors; however, the focus does not extend to social college adjustment measures. Statistically significant differences between higher amounts of student-faculty interaction and satisfaction were also found, indicating that students with a higher frequency of faculty interactions also had higher satisfaction with the quality of instruction, sense of community within the college, and about their college experience in general (Delaney, 2008).

Gerdes and Mallinckrodt (1994) studied the effects of college adjustment on degree persistence and retention. Prior to entrance to college, 209 incoming freshmen completed the Anticipated Student Adaptation to College Questionnaire (ASACQ), a measure of expectations of college. At the end of the fall semester respondents were mailed the Student Adaptation to College Questionnaire (SACQ), a measure of college adjustment. Of the original 209 respondents, 112 students completed and returned the SACQ. Six years after initial enrollment the researchers examined the transcripts of the 112 participants to measure academic sanctions, date of graduation, total credit hours, type of degree awarded, and to determine the last semester in which the participant was enrolled. Preliminary transcript analysis designated the participants into two groups: persisters and leavers. Persisters were defined as participants who graduated within six years; specifically, Gerdes and Mallinckrodt (1994) found that 29% of the participants graduated within four years, 35% graduated within five years, and 6% graduated within six years. Persisters accounted for 70% of the sample (Gerdes & Mallinckrodt, 1994). Leavers were defined as participants who had not graduated within six years, and 28% of the sample was placed in this category (Gerdes & Mallinckrodt, 1994). A third group, 2% of the participants who were currently enrolled six years later were not categorized as either persisters or leavers (Gerdes & Mallinckrodt, 1994). Each group was further categorized into two additional

categories: poor-standing and good-standing. Poor-standing persisters and leavers were either placed on academic probation while at school, had at least five credit hours graded with a D, F, No Pass in one or more semesters, or were removed from the university due to low grades. The rest of the participants were classified as good-standing persisters or leavers. Once the participants had been categorized point biserial correlation analysis was used to analyze the data. There was a statistically significant difference between anticipated and actual adjustment for all participants (Gerdes & Mallinckrodt, 1994). Additionally, there was a significant difference between the persisters and leavers response patterns on the SACQ, indicating the scale's use as a potential predictor of adjustment and retention (Gerdes & Mallinckrodt, 1994). Not only was college adjustment was significantly correlated to ascribed membership but adjustment was also significantly correlated to retention (Gerdes & Mallinckrodt, 1994).

College adjustment as an outcome variable of social support, self-esteem, and stress was studied by Friedlander, Reid, Shupak, and Cribbie (2007). Participants included 115 first-year undergraduate students. Social support was measured by the Multidimensional Scale of Perceived Social Support (MSPSS), a 12-item self-report measure of perceived social support from both friends and family. Self-esteem was measured by the Self-Perception Profile for College Students and the *Beck Depression Inventory-II* (BDI-II). The Self-Perception Profile for College Students is a 54-item inventory in which participants rated self-perceptions in 13 areas: social acceptance, close relationships, parent relationship, scholastic competence, appearance, job competence, romantic relationships, morality, creativity, humor, intellectual ability, athletic competence. A global self worth score was also obtained. The BDI-II is a self-report measure of behavioral, affective, and cognitive factors of depression. Stress was measured by the Perceived Stress Scale (PSS). The 10-item short form scale was used, and participants used a 5-point

Likert scale to self-report how often situations in their lives were perceived to be uncontrollable, unpredictable, overloading, and stressful in general. College adjustment was measured by the Student Adaptation to College Questionnaire (SACQ). Multiple regression was used to analyze data, and results indicated a statistically significant correlation between all three predictor variables and college adjustment (Friedlander et al., 2007). Social support, self-esteem, and stress, accounted for 43% of the variance of adjustment (Friedlander et al., 2007).

College adjustment has been studied in terms of its effect on variables related to academic achievement (e.g., student-faculty interactions, degree persistence and retention, social support, self-esteem, and stress). Delaney (2008) found that students with a higher frequency of student-faculty interactions had a higher satisfaction with the quality of instruction, sense of community within the college, and about their college experience in general. Gerdes and Mallinckrodt (1994) found that college adjustment was related to retention and the length of time it took participants to graduate with a degree. Friedlander et al. (2007) found that social support, self-esteem, and stress accounted for 43% of the variance in college adjustment.

Academic Achievement

Although student-faculty interactions have been studied as predictors of academic achievement in college, college adjustment has been studied as a predictor of other variables that effect academic achievement. Among these variables are social support (DeBerard, Spielmans, and Julka, 2004); however, many additional predictors of academic achievement have been researched.

DeBerard, Spielmans, and Julka (2004) examined the effect of ten predictor variables and first-year college GPA. Predictor variables included high school GPA, Scholastic Aptitude Test (SAT) scores, alcohol consumption, smoking habits, physical health, two dimensions of coping

skills (i.e., escape-avoidance coping and acceptance coping), social support, mental health status, and gender. Participants included 204 undergraduate first-year students from a private university in the United States. Alcohol consumption and smoking habits were assessed by self-report measures. Physical health and mental health were assessed by the Short-Form Health Survey-36 (SF-36). Social support was measured by the Multidimensional Perceived Social Support Scale (MPSSS), and coping skills were measured by the Ways of Coping Checklist-Revised (WOC). High school GPA and SAT scores were obtained from the Registrar's office. Using a multiple linear regression model, DeBerard et al. (2004) found that the 10 predictor variables accounted for 56% of the variance in participants' GPA. Nine of the 10 predictor variables were significantly related to college GPA: gender, SAT scores, high school GPA, alcohol consumption, smoking habits, physical health, social support, acceptance coping, and escape-coping (DeBerard et al., 2004). In fact, both alcohol consumption and smoking habits were negatively correlated with college GPA; indicating that students who reported smoking and drinking less had a higher GPA at the end of their first year (DeBerard et al., 2004).

Nonis and Hudson (2006) studied factors of college achievement, including past performance, time spent studying, and motivation. A total of 264 undergraduate students participated in the study, and data were collected via surveys, a one-week journal, and college records. Past academic performance was measured by American College Testing (ACT) scores. Time spent studying was measured by self-report and motivation was measured by an achievement striving scale. Academic achievement was measured by semester GPAs collected for each participant from the Registrar's office. Additionally, demographic information was collected and recorded in each student's journal. Multiple regression analysis was used to determine statistically significant increases in variance. Nonis and Hudson (2006) found that the

ACT scores of the participants had a significant effect on their semester GPA. While time spent studying was not a significant factor in itself, when added to the model with ACT scores they accounted for 25% of variance in the participants' GPA. Additionally, motivation had a significant effect on academic achievement.

Kuh, Cruce, Shoup, Kinzie, and Gonyea (2008) examined the relationships between student engagement, high school academic achievement, pre-college experience, demographic characteristics, and college GPA. Student engagement was measured by the National Survey of Student Engagement (NSSE). The NSSE measures student engagement by assessing the amount of time spent studying, effective educational practices, and co-curricular activities. High school academic achievement was measured by participants' ACT scores. Pre-college experience was measured by the number of honors courses taken, pre-college GPA of a B or C average, number of extracurricular activities, and expectations of continuing to graduate school. Demographic information included participant gender, ethnicity, parent education level, parent income level, and grants awarded. Data were collected from 6,193 first-year students at 18 different colleges and universities across the United States. Logistic regression was used to analyze the data, and results found a significant effect of study time and college GPA and a significant effect of engagement in educationally purposeful activities and college GPA (Kuh et al., 2008). Educational purposeful activities include activities that enrich a student's learning outside of designated class and study time. Additionally, the amount of time spent studying during the participants' first year of college was significantly correlated with participants' ACT scores (Kuh et al., 2008). Further, time spent studying was divided into two categories: 6 to 20 hours and 21 or more hours per week. While the amount of time spent studying had a significant effect on college GPA there was a difference between the significance levels: studying 21 or more hours

per week had a higher level of significance on GPA than studying between 6 and 20 hours per week (Kuh et al., 2008). The second purpose of this study was to analyze the above data in regards to retention. College GPA was found to have a significant effect on retention (Kuh, et al., 2008), indicating that academic achievement in a student's first year of college is important to college persistence.

Chemers, Hu, and Garcia (2001) examined the relationship between academic self-efficacy, college adjustment, and academic achievement. Participants included 256 first-year undergraduate students. Academic self-efficacy was measured by an eight-item scale created by the researchers. The scale addressed areas such as time management, test taking skills, note taking skills, perceived ability to properly research and write papers, and general self-perceptions of academic ability. Academic achievement was measured by narrative evaluations given by the professor to the student. The researcher coded key words within the narratives (i.e., outstanding, excellent, needs improvement) on a scale of one to five. College adjustment was measured by two scales: a researcher-created scale assessing participants' overall satisfaction with current progress and desire to remain enrolled and the Academic and Intellectual Development and Institutional and Goal commitment subscales of the College Social Support Scale. Structural equation modeling was used to analyze the data, and results indicated statistically significant effects of academic self-efficacy on academic achievement and adjustment (Chemers et al., 2001).

Conclusions

The research on the relationship between student-faculty interactions on specific student outcomes, such as college adjustment and academic achievement, is scarce. The literature base does not contain studies about the relationship of these three variables together or studies about

the direct relationship between college adjustment and academic achievement. Instead, the literature contains studies about the effect of college adjustment on other variables related to academic achievement (i.e., social support and academic self-efficacy). This study aims to address these gaps in the literature in addition to identifying variables that affect academic achievement in college. It is hypothesized that student-faculty interactions and college adjustment will predict first-year academic achievement and that student-faculty interactions will be a greater predictor than college adjustment.

CHAPTER III: METHOD

Institutional Review Board (IRB) approval was obtained from East Carolina University to recruit participants and conduct this study (see Appendix A).

Participants

The study took place during the Spring 2011 semester at a university located in the southeastern United States. Participants included 90 undergraduate freshmen students enrolled in a face-to-face Introduction to Psychology course. Table 1 displays descriptive information of the participants. Four participants were excluded from the study due to outlier data, a total of 86 participants' data were analyzed. Of these, 45.3% were males (n = 31) and 64% (n = 55) were female. The mean age of the participants was 18.55 (SD = .50); 45.3% of participants (n = 39) were 18 years old and 54.7% (n = 47) of participants were 19 years old. The majority of the participants, 86% (n = 74) lived in on-campus housing, while 4.7% (n = 4) of participants lived off-campus with family, and 9.3% (n = 8) of participants lived off-campus without family.

Design

A non-experimental design was used in the present study. The predictor variables included student-faculty interaction and college adjustment. Student-faculty interaction predictor variables included the nine subscores generated by the Student-Professor Interaction Scale (i.e., Career Guidance, Connectedness, Negative Experiences, Approachable, Respectful Interactions, Caring Attitudes, Off-Campus Interactions, Accessibility, and a Validity scale). Examples of each scale's items are presented in the Materials section. Academic achievement served as the criterion variable.

Table 1.

Participant Characteristics

	Mean	SD	Frequency	%
Age	18.55	.50		
18			39	45.3
19			47	54.7
Sex				
Male			31	36
Female			55	64
Housing				
On-Campus			74	86
Off-Campus (with family)			4	4.7
Off-Campus (without family)			8	9.3

N = 86

Participants were recruited using the psychology department's ExperimenTrak system. ExperimenTrak is a computerized system in which students enrolled in an Introduction to Psychology course can choose a study to participate in to fulfill a course requirement. All students enrolled in this course are required to either participate in a psychology study or read an assigned research article and take a quiz. Participants used ExperimenTrak to sign up for a time block in which they came to participate in the study. Inclusionary criteria was that participants graduated from high school in 2011 and attended they attend the university during the Fall 2011 and Spring 2012 semesters. However, students under the age of 18 were not eligible for participation in this study, Using G*Power (Buchner, Erdfelder, Faul, & Lang 2009), an a priori power analysis was conducted to determine the number of participants needed, and results showed that a sample size of 74 is needed to produce significant results ($f^2 = 0.15$).

Materials

Self-report measures were used to assess student-faculty interaction and college adjustment. Additionally, demographic information was collected using a self-report measure. Materials were presented to each participant in a packet including the following: an informed consent form (see Appendix B), a demographic survey (see Appendix C), the Student-Professor Interaction Scale (SPIS; see Appendix D), and the College Freshman Adjustment Scale (CFAS; see appendix E).

Demographic Survey

The demographic survey was constructed by the researcher and asked for the following information: name, age, sex, and current housing. The current housing question had three response options: on-campus, off campus – with family, and off-campus – without family. A

possible confound to college adjustment could be commuter students who are still living at home with their family.

Student-Professor Interaction Scale

Student-faculty interaction was measured by the Student-Professor Interaction Scale (SPIS). The SPIS is a 40-item self-report scale created to assess and measure the quality of student-faculty interactions. The scale can be administered individually or as a group. Nine subscale scores are generated to provide an in depth view of student-faculty interactions: Career Guidance, Connectedness, Negative Experiences, Approachable, Respectful Interactions, Caring Attitudes, Off-Campus Interactions, Accessibility, and a validity scale. The scale contains at least three questions per subscale, and is scored by calculating the mean score for each area. The SPIS utilizes a 7-point Likert scale with response options ranging from strongly disagree to strongly agree.

Scale items were developed by a Multicultural Research Team and the sample consisted of participants from various ethnicities and races. Reliability of the scale was tested (Cokley, Komarraju, Patel, & Castillon, 2004) and the internal consistency Cronbach's alpha value for each subscale is presented in Table 2. The Cronbach's alpha value for the overall scale is .93. The nine subscales are as follows: Caring Attitude (4 items: 1, 2, 3, 4; $\alpha = .87$; sample items, I feel that one or more professors are supportive of me), Off-Campus Interactions (4 items: 5, 6, 7, 8; $\alpha = .50$; sample item, Professors initiate contact with students after class), Career Guidance (4 items: 9, 10, 11, 12; $\alpha = .88$; sample item, At least one or more professors have provided me with guidance in developing my career goals), Connectedness (4 items: 13, 14, 15, 16; $\alpha = .67$; sample item, I feel a bond with one or more faculty), Approachable (4 items: 17, 18, 19, 20;

Table 2.

Coefficient Alpha Values for the Student-Professor Interaction Scale

Subscale	Cronbach's alphas
Caring Attitude	.87
Off-Campus Interactions	.50
Career Guidance	.88
Connectedness	.67
Approachable	.84
Accessibility	.77
Respectful Interactions	.93
Negative Experiences	.68
Validity	.74

Note: Cronbach's alpha values from Cokley, Komarraju, Patel, and Castillon (2004)

α = .84; sample item, I feel comfortable asking my professors questions about concepts that are not clear), Accessibility (4 items: 21, 22, 23, 24; α = .77; sample item, Although professors are busy, I can talk to one or more of them whenever I need to), Respectful Interactions (9 items: 25, 26, 27, 28, 29, 30, 31, 32, 33; α = .93; sample items, Professors show respect for all students in the classroom, and My professors seem comfortable interacting with students outside of their racial/ethnic group), Negative Experiences (4 items: 34, 35, 36, 37; α = .68; sample item, My professors seem distant and uninterested in me), and Validity (3 items, α = .74; sample item, The quality of my relationships with professors impacts my academic performance). Validity of the SPIS was tested by Cokley et al (2004) and the scale was found to be adequate, ranging from 0.51 to 0.92 for each subscale.

College Freshman Adjustment Scale

The College Freshman Adjustment Scale (CFAS) was used to determine a level of college adjustment. The CFAS, developed at the University of Connecticut, contains 14 dichotomous items that target four main factors of college adjustment: social adjustment, personal adjustment, college match, and academic adjustment (Brazziel, 1982). These four main factors contribute to an overall score of college adjustment. Content validity for the social adjustment factor ranged from .65 to .85, from .71 to .81 for personal adjustment, from .78 to .85 for college match, and from .54 to .78 for the academic adjustment factor (Brazziel, 1982). The CFAS can be administered individually or to a group. Scores higher than 7.68 on the CFAS indicate maladjustment while scores between 1.42 and 7.67 indicate average adjustment (Brazziel, 1982). The CFAS is scored by calculating one point for each false answer to items 3, 4, 7, 8, 12, and 13 (sample items: I am as happy here as I would be at another college, and My college achievements and experiences have been about as I anticipated) and one point for each

true answer to items 1, 2, 5, 6, 9, 10, 11, and 14 (sample items: I fear failure in college, and I often feel left out of things) (Brazziel, 1982). Items given one point for an answer of false are reverse scored.

Academic Achievement

Academic achievement was measured by each participant's grade point average (GPA) from the 2011 – 2012 academic year. The materials packet contained an informed consent form which allowed the researcher to access their GPA. At the end of the Spring 2012 semester GPAs were collected from the Office of the Registrar.

Procedure

Participants signed up to take part in this study via ExperimenTrak. Those who met the inclusionary criteria were included in the study. Appointments were scheduled by the participants to meet with the researcher and complete the materials packet. Appointments were held on campus within classrooms in the Department of Psychology. At the appointments the researcher explained the informed consent and distributed the materials packet. Upon completion of the packet the researcher scored the SPIS and CFAS. Permission for use and scoring instructions for the SPIS were obtained by the scale creator, Dr. Kevin Cokely. Scoring instructions for the CFAS were obtained from Brazziel (1982). Grade point averages were collected from the Office of the Registrar. Data were coded and analyzed using the Statistical Package for the Social Sciences (SPSS). Data from four participants were eliminated due to outliers.

Data Analysis

Data were analyzed using a hierarchical multiple regression model. Subscale scores from the SPIS, CFAS scores, and GPAs were analyzed to determine if a predictive relationship existed

between student-faculty interaction and college adjustment and academic achievement. Participant sex and housing were controlled variables. Sexr and housing were coded as follows: sex (1 = male, 2 = female) and housing (1 = on-campus, 2 = off-campus with family, 3 = off-campus without family).

CHAPTER IV: RESULTS

Hierarchical multiple regression analysis was used to test a model of predicting undergraduate freshman students' grade point average from student-faculty interactions and college adjustment. Controlled variables (e.g., sex and housing) were entered first, followed by SPIS subscores, and CFAS scores were entered last into the model. Table 3 presents descriptive statistics of the model. With participant sex and housing held constant there was not a significant effect of the model on academic achievement, $F(12, 73) = 1.72$, $p = .08$, $\eta^2 = .09$. The effect size of the model is small, $f^2 = .05$.

Student-faculty interaction was not a greater predictor of academic achievement than college adjustment, $F(11, 74) = 1.36$, $p = .20$, $\eta^2 = .04$. Table 4 presents the results of the model. Table 5 shows zero-order correlation coefficients of the SPIS subscale and CFAS scores as predictors of academic achievement. Within the model, examination of the predictor variables show a significant correlation between college adjustment ($r = -.25$, $p = .03$) and academic achievement.

Table 3.

Hierarchical Regression Descriptive Statistics

	Mean	SD
Caring Attitude	5.45	1.00
Off-Campus Interactions	3.35	1.34
Career Guidance	4.90	1.14
Connectedness	4.15	1.29
Approachable	5.32	1.09
Accessibility	5.15	1.15
Respectful Interactions	5.55	0.87
Negative Experiences	2.41	0.99
Validity Index	5.24	1.17
CFAS	3.76	2.50

Table 4.

Hierarchical Multiple Regression Analyses Predicting Academic Achievement with Student-Faculty Interactions and College Adjustment

Predictor	ΔR^2	β
Step 1		
Control variables[a]	– .04	
Step 2		
Student-faculty Interaction (SPIS)	.04	
Caring Attitude		.15
Off-Campus Interactions		.08
Career Guidance		–.04
Connectedness		–.08
Approachability		.01
Accessibility		.01
Respectful Interactions		–.18
Negative Experiences		–.16
Validity		.04
Step 3		
College Adjustment (CFAS)	.09	–.07

[a]Control variables included sex and housing.

Table 5.

Zero-order Correlation Coefficients of SPIS Subscale and CFAS Scores as Predictors of Academic Achievement

Predictor Variable	Zero-Order Correlation Coefficients
Caring Attitude	.24
Off-Campus Interactions	.20
Career Guidance	.14
Connectedness	.16
Approachable	.20
Accessibility	.19
Respectful Interactions	.07
Negative Experiences	–.26
Validity Index	.04
CFAS	–.25*

Note: * $p < .05$

CHAPTER V: DISCUSSION

The hypotheses of the current study were 1) student-faculty interactions and college adjustment would predict academic achievement and 2) student-faculty interactions would be a higher predictor of academic achievement than college adjustment.

Hypothesis 1

The model was not significant in predicting academic achievement from student-faculty interactions and college adjustment and explained only 9% of the variance in the participants' first-year GPA.

While previous research about the effect of student-faculty interactions on academic achievement has found significant results, the majority of the research done has measured student-faculty interactions quantitatively. The present study measured student-faculty interactions qualitatively. Delaney (2008) found significant correlations between student-faculty interaction and academic performance, analytical skills, critical thinking, perceived growth in general knowledge, diversity awareness, and knowledge within one's field. Student-faculty interaction was also found to account for 48% of the variance in undergraduate students' academic gains (Kuh & Hu, 2001). Informal student-faculty interaction has been found to be statistically correlated to students' perceived gains in mathematics and science (Thompson, 2001).

When studying the quality of student-faculty interactions Komarraju, Musulkin, and Bhattacharya (2010) found a significant correlation between academic achievement and approachability of professors. Overall findings of the present study were similar to Komarraju et al. on all variables except approachability. The absence of significant correlations between career guidance, accessibility, negative experiences, off-campus interactions, respectful

interactions, connectedness, caring attitudes, and academic achievement was consistent with previous research about the quality of student-faculty interactions (Komarraju et al., 2010).

There are various reasons that may explain why the results of the present study were inconsistent with previous research. First, previous research in the area of student-faculty interactions has mainly focused on the quantity of interactions rather than the quality. The quality of student-faculty interactions is an emerging area of research. When measuring student-faculty interactions quantitatively, many studies have shown that the amount of student-faculty interactions effects academic achievement (Delaney, 2008; Endo & Harpel, 1982; Kuh & Hu, 2001). However, the present study is not comparable to studies in which student-faculty interactions were measured by quantity, as the present study measured student-faculty interactions qualitatively. Only one previous study (Komarraju et al., 2010) has measured student-faculty interactions in terms of quality.

Research on the quality of student-faculty interactions has identified one area that is significantly correlated with academic achievement: approachability of professors. However, a student's perception of professor approachability can be determined by a myriad of other variables. The list of variables that influence perceived approachability may be endless, as many things influence attributions.

Second, the sample size greatly differed between the present study and Komarraju, Musulkin, and Bhattacharya (2010). Komarraju et al. had a total of 242 freshmen participants while the present study had 86. The difference between these two samples may have produced an effect in Komarraju et al.'s study while the model was not significant in the present study.

Third, low rates of student-faculty interactions may explain non-significant results. Research has found low rates of student-faculty interaction (Cotton & Wilson, 2006; Fusani,

1994; Keup, 2007; Snow, 1973). A low rate of student-faculty interaction could affect the influence of such interactions on academic achievement. While this may be a factor contributing to non-significant results, neither the present study nor Komarraju, Musulkin, and Bhattacharya (2010) measured the quantity of student-faculty interactions. Both studies aimed to exclusively examine the quality of student-faculty interactions; however, the quantity of interactions should have been examined as well.

Hypothesis 2

Student-faculty interaction was not a larger predictor of academic achievement than college adjustment. Student-faculty interaction accounted for 4% of the total variance while college adjustment accounted for 5% of the variance. College adjustment was significantly correlated to participants' GPA within the model. Higher scores on the CFAS are indicative of maladjustment to college, and this was predictive of lower academic achievement.

The present study found college adjustment to be a significant predictor of academic achievement, accounting for 5% of the variance in participant GPAs. While previous research has not studied this specific area, significant relationships have been found between college adjustment and other variables that affect academic achievement. College adjustment is significantly correlated with social support (DeBerard, Spielmans, & Julka, 2004) and academic self-efficacy (Chemers, Hu, & Garcia, 2001), both of which are significantly correlated with academic achievement. Psychosocial aspects of college life can affect GPA; in addition to the effect of social support research has also identified coping skills (DeBerard et al., 2004) as a predictor of academic achievement.

Limitations

One limitation to this study is a lack of generalizability of the results. As all participants were from only one university results are not generalizable to a national population. Results are only applicable to this year's freshman class at the university used in this study. Replications of this study should be done at other colleges and universities and, if nationwide studies are conducted, participant demographics should be matched to census data to increase generalizability. Additionally, participants in this study were from a convenience sample, and not randomly selected. Further research should address this limitation.

Another limitation to this study is the use of a regression model. While results from a multiple regression model may show relationships, they do not specify causality. Although this study found a significant correlation between college adjustment and academic achievement, there are confounding variables that could influence results. For example, participation in campus activities, such as clubs and other organizations, may increase college adjustment. Intrinsic characteristics (i.e., motivation) also influence a student's academic achievement (DeBerard, Spielmans, & Julka, 2004; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Nonis & Hudson, 2006).

A third limitation to this study is that high school grade point averages of the participants were not collected. Past academic performance is predictive of future academic performance (DeBerard, Spielmans, & Julka, 2004; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Nonis & Hudson, 2006). Collection and use of participants' GPA may have explained variance in academic achievement and would increase the reliability of participant GPAs.

Implications for Future Research

Future research on student-faculty interactions should focus on two areas: the quality of interactions and the creation and assessment of pilot programs at the high school and college

level in which the goal is to increase these interactions. Most of the previous research of student-faculty interactions has focused on the quantity of these interactions, not their quality. Research is beginning to emerge in the area of the quality of student-faculty interactions; however, more research should be conducted in this area. In addition to more research about the quality of student-faculty interactions, these studies should also collect an overall quantitative measure of student-faculty interactions. With low rates of student-faculty interaction, particularly amongst freshmen and sophomore undergraduates, it is difficult to discern possible effects of student-faculty interaction and academic achievement. The creation of successful pilot programs aimed at increasing student-faculty interactions could lead to a clearer picture of the effect of these interactions, including specific qualities of them, on academic achievement.

The finding of college adjustment as a significant predictor of academic achievement is new within the literature base. Past research has focused on college adjustment as a predictor of variables related to GPA (i.e., student-faculty interactions, social support, and academic self-efficacy) and as an outcome variable of perceived prejudice and discrimination towards minority students (Nora & Cabrera, 1996) and psychological separation (Lapsley, Rice, & Shadid, 1989). Future research should concentrate on the direct relationship between college adjustment and academic achievement for the purpose of replication. Additionally, future research should be done on the efficacy of programs used by colleges and universities to increase college adjustment of freshmen. Many programs, such as club days, student center activities, peer tutoring, freshman orientation and seminar courses, and dormitory functions claim to increase college adjustment; however, the literature base does not yet support this claim.

Implications for Practice

Research indicates that freshmen students are less likely to interact with their professors than older students (Cotton & Wilson, 2006; Keup, 2007). Although the present study did not find significant qualitative student-faculty interaction predictors, previous research has shown that the quantity of student-faculty interactions effects academic achievement (Delaney, 2008; Endo & Harpel, 1982; Kuh & Huh, 2001; Thompson, 2001). Previous research about the quantity of student-faculty interactions indicates a need for interventions targeting incoming students in this area. Student-faculty interaction has been shown to increase academic achievement in college (Delaney, 2008; Komarraju, Musulkin, & Bhattacharya, 2010; Kuh & Hu, 2001; Thompson, 2001), and efforts to increase freshman student-faculty interaction should be addressed. If, before entering college, students are comfortable with interacting with their teachers it would be a logical assumption that they may be more likely to interact with college professors. Effective strategies to increase student-faculty interaction should be developed and implemented.

The present study did not collect high school grade point averages. As past performance is predictive of future performance (DeBerard, Spielmans, & Julka, 2004; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Nonis & Hudson, 2006), future research in this area should collect high school grade point in addition to college grade point averages. The present study analyzed data from 86 participants, which is less than other studies that have been conducted in this area. Future research should include more participants.

The finding of college adjustment as a predictor of academic achievement also has practical implications. Increased adjustment is significantly correlated to GPA; therefore, universities and colleges should ensure a higher level of adjustment amongst the incoming freshmen cohort. Efforts should be made to identify students at-risk of maladjustment and

programs or interventions should be developed to increase the adjustment of those students. Previous research has identified academic self-efficacy (Chemers, Hu, & Garcia, 2001), social support (Friedlander, Reid, Shupak, & Cribbie, 2007), discrimination and prejudice towards minority students (Nora & Cabrera, 1996), and psychological separation (Lapsley, Rice, & Shadid, 1989) to either be effected by, or have an effect on college adjustment. Programs to increase academic self-efficacy may include free peer-tutoring centers, mentorship by an older student, and check-ins by an academic advisor. Social support may be increased by the student joining clubs and getting to know his or her neighbors in the dormitory. Many colleges have a designated club day in which students can learn more about all of the student organizations present at their school, and many dormitory halls have social events for their residents. Colleges and universities across the nation provide different programs to increase college adjustment, such as freshman orientations, freshman orientation seminars, and remedial courses. Resident advisors are present in the dormitories to help students resolve conflicts with their roommate and solve problems in their living situation. Despite the widespread popularity of such programs, little research has been done, however, as to the effectiveness of these programs.

Summary

Approximately two-thirds of the 2011 graduating high school senior class were enrolled at a college or university the following fall, most of them as full-time students at a four-year institution (USDL, 2012). If past trends in graduation and retention rates are unchanged over 25% of these students have already dropped out of college and only 31.3% of them will graduate on time (USDE, 2010). Research should address every possible variable that affects academic achievement in order to increase college persistence and graduation. Student-faculty interaction and college adjustment are two areas in which this kind of research is insufficient, particularly

research about the effect of college adjustment on academic achievement. Although the model was not significant, results of this study have implications for both practice and future research areas. The goal of higher education is not to discover students who fail; rather, the goal is to foster and nurture the knowledge and development of students. It is important to identify variables that effect academic achievement, as knowing what effects achievement is the first step in targeting students at-risk for low achievement and attrition. Ultimately, identifying these variables may help educators increase students' overall college success.

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Appendix A

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
1L-09 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · **www.ecu.edu/irb**

Notification of Initial Approval: Expedited

From: Social/Behavioral IRB
To: Leigh Hileman
CC:
Michael Brown
Date: 4/12/2012
Re: UMCIRB 12-000633
Student-Faculty Interactions and College Adjustment as Predictors of Academic Achievement

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) is for the period of 4/11/2012 to 4/10/2013. The research study is eligible for review under expedited category #5, 7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The Investigator must adhere to all reporting requirements for this study.

The approval includes the following items:

Name	Description
consent form.doc | History	Consent Forms
Demographic Survey.doc | History	Surveys and Questionnaires
proposal.doc | History	Additional Items
Student-Professor Interaction Scale.doc | History	Surveys and Questionnaires
The College Freshman Adjustment Scale.doc | History	Surveys and Questionnaires

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

Appendix B

INFORMED CONSENT

Leigh Hileman
School Psychology Graduate Student
East Carolina University
843-997-1053

Michael Brown, Ph.D.
Psychology Department
East Carolina University
252-328-4170

PURPOSE AND PROCEDURES

The purpose of this research study is to understand more about students' first year academic experiences and how this shapes their college experience. Participation in this study will involve responding to a 40-item questionnaire about your academic experience, a 14-item questionnaire about your self-perceptions, and the release of your GPA from freshman year at East Carolina University. In addition, you will also be asked to answer a short demographic questionnaire about yourself. Participation in this study should take no longer than 30 minutes.

POTENTIAL RISKS AND DISCOMFORTS

There are no identified risks associated with this study.

PARTICIPANT PRIVACY AND CONFIDENTIALITY OF RECORDS

The results of this study will not contain personally identifiable information and once the data have been collected and analyzed, all means of personal identification will be destroyed.

PARTICIPATION/COMPENSATION

By participating in this study some students may receive research participation credit for Psychology 1000.

VOLUNTARY PARTICIPATION

Participating in this study is voluntary. You may stop at any time without losing benefits that you should normally receive. You may stop at any time you choose without penalty.

CONSENT TO PARTICIPATE

The investigators will be available to answer any questions concerning this research, now or in the future. The investigators, Leigh Hileman or Dr. Michael Brown, can be contacted at the above addresses or phone numbers.

I have read all of the above information, asked questions and received satisfactory answers in areas I did not understand. I also give permission for the investigators to access my 2011 – 2012 academic transcript and GPA.

_____ _____ _____

Participant's Name (PRINT) **Participant's Signature** **Date**

Banner ID: _____

Appendix C

Demographic Survey

Name: _____

Age: _____

Sex:

- ☐ Male
- ☐ Female
- ☐ Transgendered

Current Housing:

- ☐ On-campus
- ☐ Off-campus – with family
- ☐ Off campus – without family

Appendix D

Student-Professor Interaction Scale

Instructions: Listed below are a number of items concerning how you perceive your interactions with professors. Read each item and indicate to what degree it reflects how you feel **most of the time**, using the 7-point scale below. Base your responses on your interactions with college professors.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree	Strongly Agree

1. I feel that one or more professors are supportive of me.	1	2	3	4	5	6	7
2. I believe that there is at least one professor who cares about my well-being.	1	2	3	4	5	6	7
3. I believe there is a professor who is concerned about my future.	1	2	3	4	5	6	7
4. I feel that professors generally care about me.	1	2	3	4	5	6	7
5. I have spent time with professors outside an academic setting.	1	2	3	4	5	6	7
6. I have a positive relationship with a professor outside of the classroom.	1	2	3	4	5	6	7
7. I have interacted with professors off campus.	1	2	3	4	5	6	7
8. Professors initiate contact with students after class.	1	2	3	4	5	6	7
9. Professors have encouraged me to go to graduate or professional school.	1	2	3	4	5	6	7
10. At least one or more professors have provided me with guidance in developing my career goals.	1	2	3	4	5	6	7
11. My professors have encouraged me to succeed in achieving my academic dreams.	1	2	3	4	5	6	7
12. My professors provide information about career and academic options.	1	2	3	4	5	6	7
13. My professors demonstrate familiarity with my culture.	1	2	3	4	5	6	7
14. I feel connected with faculty.	1	2	3	4	5	6	7
15. I have faculty that I can identify with on campus.	1	2	3	4	5	6	7
16. I feel a bond with one or more faculty.	1	2	3	4	5	6	7
17. I am comfortable approaching professors.	1	2	3	4	5	6	7

18. I feel comfortable approaching professors to discuss my grades and class work.	1	2	3	4	5	6	7
19. I feel comfortable asking my professors questions about concepts that are not clear.	1	2	3	4	5	6	7
20. I have not felt intimidated by my professors.	1	2	3	4	5	6	7
21. Professors are accessible outside of class.	1	2	3	4	5	6	7
22. Professors are available when I need guidance or assistance.	1	2	3	4	5	6	7
23. My professors make time to talk to me when needed outside of class time.	1	2	3	4	5	6	7
24. Although professors are busy, I can talk to one or more of them whenever I need to.	1	2	3	4	5	6	7
25. Professors show respect for all students in the classroom.	1	2	3	4	5	6	7
26. My professors are clear about expectations regarding coursework.	1	2	3	4	5	6	7
27. When I interact with my professors I feel s/he truly listens to me.	1	2	3	4	5	6	7
28. My professors are alert and attentive when I approach them.	1	2	3	4	5	6	7
29. When I interact with my professors I feel s/he cares about my question or problem.	1	2	3	4	5	6	7
30. Professors show respect for ethnic minority students.	1	2	3	4	5	6	7
31. When I interact with my professors I feel understood.	1	2	3	4	5	6	7
32. My professors value my contributions and opinions.	1	2	3	4	5	6	7
33. My professors seem comfortable interacting with students outside of their racial/ethnic group.	1	2	3	4	5	6	7
34. My professors seem distant and uninterested to me.	1	2	3	4	5	6	7
35. Professors do not value talking with students outside of the classroom	1	2	3	4	5	6	7
36. I do not believe my professors treat me fairly.	1	2	3	4	5	6	7
37. I feel isolated from my professors.	1	2	3	4	5	6	7
38. The quality of my relationships with professors impacts my academic performance.	1	2	3	4	5	6	7
39. I work harder to succeed in a class if I know my professor genuinely cares about me.	1	2	3	4	5	6	7
40. I think a positive relationship with a professor would enhance my experience at this school.	1	2	3	4	5	6	7

Appendix E

The College Freshman Adjustment Scale

Directions: In the blank adjacent to each item, mark T (true) if the item characterizes you, F (false) if it does not.

1. I fear failure in college _____

2. I am awkward in meeting people _____

3. I am an aggressive and outgoing person _____

4. My college achievements and experiences have been about as I anticipated _____

5. I am a timid or shy person _____

6. I am often ill at ease with other people _____

7. I believe that I am enrolled in the right curriculum _____

8. I am a good conversationalist _____

9. I often feel that people are talking about me _____

10. I am often depressed _____

11. I often have feelings of inferiority _____

12. My career goals are clear and explicit _____

13. I am as happy here as I would be at another college _____

14. I often feel left out of things _____