

An Examination of the Impact of First-Year Seminars on Correlates of College Student Retention

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Abstract. This quantitative research study sought to measure the impact of first-year seminar participation on three correlates of student retention: academic integration, social integration, and satisfaction with college life. Results suggest that students who participate in first-year seminars are not necessarily more integrated into the academic and social dimensions of college than their peers. Significant predictors of satisfaction included gender and academic achievement in college; that is, high-achieving women were most highly satisfied with college compared to their peers. Implications for college educators are discussed in the context of Tinto's (1993) theory of student departure.

Approximately 50% of all students who enroll in postsecondary institutions today depart before earning their college degree. Tinto (1993) found that the proportion is even higher among racial/ethnic minorities, particularly during the first year of college. For instance, his findings suggest that nearly 45 to 60% of all students drop out of college during the first year. And, attrition rates are higher for public, four-year institutions (28%) versus private schools (24%). In short, "A majority of all leaving takes place in the first year" (Tinto, 1993, p. 14).

In response to these trends, colleges and universities have invested considerable resources in the development and implementation of programs and services that are designed to provide the academic and social support

researchers have found to be integral to student success in college (Astin, 1993; Tinto, 1993). Such services include summer bridge programs, academic study skills courses, and first-year seminars to name a few. Empirical evidence of the effectiveness of these programs, while growing, is still needed. Much of our confidence in these programs' ability to improve retention rates, increase student learning, and enhance students' senses of belonging rests upon anecdotal evidence and largely untested theoretically based assumptions. Research continues to be needed to measure the impact of institutional support programs, such as first-year seminars, on student outcomes. This is the gap addressed by the present study.

Theoretical Framework

Tinto's (1993) interactionist theory of college student retention was chosen as the guiding framework for this study on first-year seminars, as it describes the process through which an individual makes decisions about whether to stay in (persistence) or leave (attrition) college. Drawing on the works of Durkheim (1951) and Van Gennep (1960), Tinto asserted that student departure from college is a longitudinal process or consequence of the meanings that individuals ascribe to their academic and social interactions in college (Braxton, Sullivan, & Johnson, 1997; Tinto, 1986; 1993). Specifically, he explained that individual characteristics influence students' initial commitments to their educational goals and the institution. Commitments, in turn, influence the level of involvement in the academic and social realms of college life.

Academic integration consists of two dimensions: (a) structural integration (i.e., meeting institution's academic standards) and (b) normative integration (i.e., identifying with the academic system) (Braxton & Hirschy, 2005; Tinto, 1975). Social integration, on the other hand, refers to the degree of symmetry between an individual student's social expectations and the social milieu of campus. Academic and social integration both influence students' subsequent commitments to the institution and, ultimately, degree completion. Thus, the more academically integrated a student is in college, the greater the degree of social integration, the more committed one is to his/her goals, and the more likely s/he is to complete college (Astin, 1984; Nora, 1987; Terenzini & Pascarella, 1980).

Understanding the theoretical underpinnings of college student retention is important and necessary as many first-year student support programs are

structured on its basis. Indeed, scholars have employed Tinto's conceptualization in studies of the first-year experience and first-year seminars (e.g., Bedford & Durkee, 1989; Blackhurst, 1995; Murphy, 1989). For instance, first-year seminars were largely established to provide students with appropriate levels of challenge matched with the academic and social support necessary for student success (Sanford, 1966).

Review of the Literature

Two groups of studies emerged in a review of the literature on academic support programs in higher education: those about summer bridge programs and those about first-year seminars.

Summer Bridge Programs

Summer bridge programs have been referred to as the oldest strategy used to increase student success rates, especially among academically underprepared students (Moore & Carpenter, 1985; Saluri, 1985). Many were established based on the conclusion that academic and social supports must begin early, even prior to enrollment in college (Beal & Noel, 1980). While more empirical research is still needed to further substantiate the impact of summer bridge programs on student retention, Garcia (1991) conducted an evaluation across 19 California State University campuses and found that summer bridge participation was associated with higher retention rates in the first and second year of college. Improvements in retention were observed across racial/ethnic differences.

According to a recent national study of African American and Latino males, participation in precollege, summer bridge programs was associated with earning higher grades in college (Strayhorn, 2008a). Specifically, using longitudinal survey data from a nationally representative sample of these two populations, I found that those who participated in a summer bridge program prior to entering college earned higher grades during the first year with the largest effect found among African Americans. While these studies provide support for the value of bridge programs, as Coles (1993) said, "It is [still] surprising how little empirical data exist about program effectiveness in terms of college preparation rates or strategies that make the most difference" (p. 25).

First-Year Seminars

Some authors describe first-year seminars as “one of the commonly used strategies for improving the first-year experience” (Hendel, 2006-2007, p. 413). First-year seminars are not new in higher education, dating back to the early 1900s (Fitts & Swift, 1928; Hunter, McCalla-Wriggins, & White, 2007). Originally, first-year seminars were designed to ease the transition from high school to college and to respond to the unconscionably high rates of attrition, especially among at-risk underachieving youth (Muraskin, 1998; Simmons, Wallins, & George, 1995). Over time, first-year seminars have changed in their scope and organization.

While first-year seminars vary in structure and content (Barefoot & Fidler, 1992), they tend to exist for the same purposes—namely to promote student success in college and to ease students’ adjustment to the collegiate environment. For instance, some seminars are best described as extended orientation programs while others are basic study skills courses like the one studied by Johnson (2005). In her review of the literature on academic skills courses, Johnson found that “success” courses are taught to a wide range of students (e.g., honors, athletes). Moreover, they involve active, self-directed learning for academic tasks (Pintrich & De Groot, 1990).

First-year seminars that bring students in contact with advisors frequently are believed to be most effective in terms of promoting student success. In fact, Darling and Smith (2007) noted, “First-year seminars that emphasize advisors’ early and continued contact with ... students help bridge the gaps in experience and knowledge that many ... students experience” (p. 208). Additionally, research shows that supportive relationships with individuals, upon whom students rely for support and advice, are associated with higher levels of satisfaction in college (Strayhorn, 2008b).

First-year seminars also are believed to be important vehicles for facilitating students’ academic and social integration into college life. That is, first-year seminars tend to be designed for purposes of connecting students with faculty members and peers and engaging them in academic skill building exercises, to name a few (Barefoot & Fidler, 1996; Upcraft, Gardner, Barefoot, & Associates, 2005). Specifically, some first-year seminars, like those found at The Ohio State University, provide opportunities for students to engage in educationally meaningful activities (e.g., research, travel) with their professors and peers. Still others may feature a strong peer mentoring component, such as that found at the University of Virginia, where peer mentors serve as role models and guides to first-year undergraduates.

In this case, peer mentors strive to acclimate their protégés to campus life by encouraging their involvement in both academic and social activities.

Several studies have shown that involvement in the academic and social realms of college life is critical to students’ success, especially during the first year of college (Braxton, 2000; Tinto, 1993). First-year seminars represent one mechanism through which students can develop the skills, habits of mind, and personal connections needed to succeed in college (Schnell & Doetkott, 2002-2003). Indeed, first-year seminars were designed to provide a rite of passage through which students are welcomed and socialized to college (Gardner, 1986).

Literature examining the efficacy of first-year seminars with respect to retention (Boudreau & Kromrey, 1994; Donnangelo, 1985; Dunphy, Miller, Woodruff, & Nelson, 1987; Young, 1982) has burgeoned. While the weight of evidence seems to suggest that first-year seminars are widely used and varied (e.g., Upcraft, Gardner, & Associates, 1989), studies about their effectiveness have been inconsistent with regard to their impact on retention (Chapman & Reed, 1987; Davis, 1992; Robinson, 1989). In addition, relatively few studies have explored the impact of first-year seminars on psychological assessments such as the extent to which students feel connected to the institution and their overall satisfaction with college (Pascarella & Terenzini, 2005). It is out of this context that the present study grew.

Purpose

The purpose of this study was to measure the impact of first-year seminar participation on three correlates of college student retention: (a) academic integration, (b) social integration, and (c) satisfaction with college. Specifically, the following research questions guided this analysis:

1. Do those who participate in first-year seminars (FYS) differ from those who do not participate in FYS in terms of academic integration as measured by grade point average (GPA)?
2. Do those who participate in FYS differ from those who do not participate in FYS in terms of social integration as measured by sense of belonging (Hurtado & Carter, 1997)?
3. Do those who participate in FYS differ from those who do not participate in FYS in terms of overall satisfaction with college?
4. Does participation in FYS predict satisfaction with college controlling for differences in gender, race/ethnicity, and academic achievement?

Method

The study upon which this article is based employed an ex post facto survey design to measure students' participation in a university first-year seminar and various student outcomes. The survey was conducted as part of a larger, ongoing research project on the first-year experiences of undergraduates. In light of the purpose of the present analysis, the discussion of methods will focus on only those elements that pertain to first-year seminars and outcomes such as integration and satisfaction.

Participants

The sample was drawn from the population of first-time, full-time first-year students enrolled at a large, public, research-extensive, predominantly White institution located in the southeast region of the United States. Records from the University's registrar indicate that approximately 2,500 students fit the sampling criteria (excluding transfer, part-time, non-first time, and non-degree seeking students).

The analytic sample consisted of 755 respondents to the First-Year Assessment Survey (FYAS). A majority of the sample were women (58%), reflecting the male to female ratio in the first-year cohort at the institution. Eighty-six percent of the participants were White (non-Hispanic), 7% were African American, 3% were Asian Pacific Islanders, and approximately 4% were Latino, American Indian, or multiracial. Due to the small number of students in each non-White racial/ethnic category, all analyses were conducted using the collapsed category of "students of color" which included African Americans, Asian Pacific Islanders, Latinos, American Indians, and multiracial students. This technique has been used in previous studies (e.g., Rankin & Reason, 2005).

Slightly more than one third ($n = 286$) of the respondents had participated in a first-year seminar. First-year seminars at the study's site were more akin to what Upcraft, Gardner, and Associates (1989) called "orientation-type courses." These one-credit seminars were taught by professional (i.e., student affairs) or paraprofessional (i.e., graduate assistants) staff members during the first session of each semester, which is the equivalent of seven weeks. Enrollment was limited to 25 first-year students per section. Seminars were designed to assist students in developing the academic skills necessary to succeed in college. For instance, seminar topics included identifying campus resources, managing time and money, developing study skills, and career planning.

Data Collection

The survey was administered online using web-based survey software. Data were collected during the spring 2007 term. Individuals were invited to participate in the study via e-mail. The electronic invitation included a hyperlink to the URL of the web site on which the survey was located. The University's registrar forwarded the invitation to potential participants using a randomly selected list of eligible students.

Several strategies were employed to maximize the response rate. First, letters of support from campus administration (i.e., provost) were sent to the entire first-year class via a university-wide listserv. Second, fifty \$100 prizes were raffled for completing the survey. Last, reminder messages were sent via e-mail at two-week intervals for a period of eight weeks. These strategies yielded an overall response rate of 40%, after accounting for undeliverable electronic invitations and "bounce backs."

Instrumentation

A research instrument, The First-Year Assessment Survey (FYAS), was developed for the purposes of the study. The 82-item survey contained four sections. The first section (13 items) elicited information about respondents' background and demographic traits including age, gender, race/ethnicity, and international student status. The second section consisted of 40 items related to students' engagement or involvement in campus activities and their level of satisfaction with campus services ($\alpha = 0.95$) and college overall ($\alpha = 0.93$). Included are items such as, "So far during your first year at [college], estimate how much time you spent during a typical week doing the following activities." Examples of activities ranged from studying to socializing with friends. A five-point Likert scale was used (1 = never, 5 = more than 15 hours).

The third section containing 21 items explored students' transition to college and their coping strategies based on the work of Schlossberg (1989). The final section of the survey (8 items) was designed to measure noncognitive factors derived from the work of Sedlacek and his associates (Sedlacek, 2004; Sedlacek & Brooks, 1976).

Content validity was assessed through pilot testing of the instrument. In other words, the FYAS was pilot tested using a sample of first- and/or second-year students ($N = 102$) during the fall 2006 term. Data collection procedures were then tailored to the characteristics of the targeted student

population (i.e., first-year students). Individuals who participated in the pilot test were excluded from participating in the actual survey. Preliminary findings from the pilot test suggested that the FYAS was a reasonably reliable and valid instrument (contact author for initial psychometric properties of FYAS).

Psychometric indices suggest that the instrument is internally consistent ($\alpha = 0.92$) with the current sample. Several other pieces of evidence support the validity of these interpretations including, but not limited to (a) content representation (i.e., using multiple items to measure single constructs), (b) construct validity (i.e., using factor analysis to test the internal structure of the test), and (c) triangulation of methods (e.g., surveys, interviews, IPEDs data, academic records) (Furr & Bacharach, 2008). Finally, where possible, items derived from other instruments were used to tap particular variables such as satisfaction (e.g., Pace & Kuh, 1998). Test-retest reliability for the subscales is quite high (r 's range from 0.77 to 0.84).

Measures

Satisfaction with college ($\alpha = 0.85$) was measured by two survey items that asked respondents to rate the degree to which they agreed with statements. An example of this scale is "Overall, I am satisfied with my college experience." Response options ranged from 1 (strongly disagree) to 5 (strongly agree).

Academic integration was measured by the individual's grade point average (GPA) obtained at the end of the fall semester of the first year. GPA was rated on a 4.0 scale. Precedent for using this variable as a proxy for academic integration was set in previous studies (Tinto, 1993; Zea, Reisen, Beil, & Caplan, 1997).

Social integration was defined as a sense of belonging or connectedness to others on campus (Hurtado & Carter, 1997; Rosenberg & McCullough, 1981; Taylor, Turner, Noymer, Beckett, & Elliott, 2001). Two items from the FYAS were used to measure sense of belonging ($\alpha = 0.87$). For instance, participants were asked to rate the extent to which they agreed with the following: "I feel a sense of belonging here at [college]." Response options ranged from 1 (strongly disagree) to 5 (strongly agree).

A single, dichotomous item was used to determine group membership. That is, one item on the survey asked, "Did you participate in a university first-year seminar?" Responses to the survey were sorted into two groups based on this item: 0 (non participants) and 1 (first-year seminar participants).

Data Analysis

Data analysis proceeded in three stages. First, descriptive statistics were used to calculate means and standard deviations for all independent and dependent variables included in this analysis. Independent sample t -tests were used to determine differences between first-year seminar participants and those who did not participate in first-year seminars.

Last, hierarchical multiple regression tests were employed to measure the impact of first-year seminar participation on overall satisfaction with college, controlling for differences in race, gender, and academic achievement. Hierarchical regression analysis is

a method of regression analysis in which independent variables are entered into the regression equation in a sequence specified by the researcher in advance. The hierarchy (order of the variables) is determined by the researcher's theoretical understanding of the relations among the variables. (Vogt, 1999, p. 129)

Results

Means and standard deviations for all independent and dependent variables are shown in Table 1. Independent samples t -tests were conducted to evaluate the hypothesis that first-year seminar participants are more academically and socially integrated in college and, therefore, are more satisfied with college overall than their peers who do not participate in FYS. The test for academic integration was non-significant, $t(688) = 0.72, p = 0.47$. The test for social integration also was non-significant, $t(660) = -0.07, p = 0.94$. Finally, first-year seminar participants did not differ from nonparticipants in terms of overall satisfaction with college, $t(660) = 0.40, p = 0.69$.

Table 1
Descriptive Statistics for all Variables (N = 755)

	<i>M</i>	<i>SD</i>
Gender	1.59	0.49
Race	0.86	0.41
Social integration	7.47	1.92
Academic integration	3.25	0.74
Satisfaction with college	7.90	2.01

Hierarchical regression results suggest that the overall statistical model was significant, $F(4, 657) = 4.28, p < 0.01$. The linear combination of factors accounted for 3% of the variance in satisfaction with college, $R = 0.16, R^2 = 0.03$. Based on these results, several factors were found to be significant predictors of satisfaction with college including gender and academic achievement in college. The results of the final regression model are shown in Table 2.

Table 2
Results of the Final Regression Model

	B	β	t	p
Constant	6.10		13.53	0.00
Gender	0.18	0.09	2.37	0.02
Race/Ethnicity	0.15	0.05	1.34	0.18
Grades	0.15	0.11	2.75	0.01
FYS	0.02	0.01	0.19	0.85

Note. FYS = first-year seminar.

Discussion

The primary purpose of this study was to measure the impact of first-year seminar participation on three correlates of college student retention, namely academic integration, social integration, and satisfaction. Multivariate analyses were conducted using data from a large sample of students who attended a predominantly White, research-extensive, four-year institution located in the southeast region of the United States. The results of this study suggest several important conclusions.

First, findings provide evidence that first-year seminar participants do not necessarily differ from their non-FYS counterparts with respect to academic integration (i.e., GPA), social integration (i.e., sense of belonging), and satisfaction with college. These results suggest that mere participation in a first-year seminar does not translate into improved outcomes. The benefits that are likely to accrue to first-year participants may be a function of the type (e.g., extended orientation, academic seminar) and content of the seminar. For instance, informal interviews with FYS participants (not reported here) revealed that some seminars were taught by graduate students; others were

taught by full-time staff members. Very few were taught by full-time faculty. Similarly, many more seminars focused on time management skills while a select few involved working on teams to solve problems or provide community service. Engagement literature supports the notion that involving students in educationally purposeful activities affects learning and development (Kuh, 2003). Thus, it seems reasonable to assume that involvement in such activities through a first-year seminar may yield more powerful outcomes and enhance students' subjective evaluation of their college experience (i.e., satisfaction).

Several scholars have shown that contact hours may be a factor as well. Some seminars met regularly over the course of a seven-week session (e.g., every Monday and Wednesday for 75 minutes) while others met infrequently for shorter periods of time (e.g., once a month for 60 minutes). It seems reasonable to conclude that such factors could diminish the impact of first-year seminars on college student performance, sense of belonging, and satisfaction. FYS coordinators should consider these findings when starting new first-year seminars or refining existing ones.

Women in the sample reported being more satisfied with college than men. This finding is consistent, at least in part, with prior research (e.g., Bean & Metzner, 1985). That women and men report being more or less satisfied with their college experience begs a number of important questions. What is it about the college experience that renders women more satisfied than men? And, in the case of programs and services designed to support first-year students, how might they be enhanced or redesigned to suit the expectations of men just as much as women? For example, it may be the case that women gain from the small class sizes or that they acquire, from campus involvement, the social and cultural capital necessary to succeed in college. Men, on the other hand, may face unique challenges in the college environment that are only tangentially related to the content of first-year seminars (e.g., issues of masculinity, managing personal relationships). Over time, the unique challenges associated with being a male college student may take their toll and undermine one's achievement. Others argue that schools and professors impose a feminine culture on males that provokes oppositional behaviors (Polite & Davis, 1999). More research is needed to unpack the significance of this finding and to understand what accounts for such gender disparities. Additionally, scholars should focus on the role that first-year seminars play in reducing, if not eliminating, such gaps.

Students with higher grades in college also tended to rate higher on satisfaction with college. In other words, the higher one's achievement in college, the higher his/her level of satisfaction with college. Previously, Fox (1986) found that academic integration was a stronger predictor of persistence than social integration. Similar findings were uncovered in this study with respect to satisfaction. Taken together, these results underscore the importance of "doing well" in college and emphasize the role that academic support services can play during the first year of college. By providing the assistance students need to excel academically, educators can effectively alter students' opinions about college. Moreover, findings may point to an important area that should be addressed in first-year seminars—namely, how to excel academically (e.g., developing study skills, accessing library resources, writing papers). Program administrators should consult these findings when planning or redesigning seminar curricula.

An important contribution of this study is the embedding of these relationships in a framework of college student retention. Indeed, academic integration is related to satisfaction with college that, in turn, influences retention (Bean, 1983). Results from this analysis lend credence to Tinto's (1993) original conceptualization of college student retention and Bean's adaptations from organizational theory. Further, this research underscores the importance of grounding one's study in existing theory. Theoretical frameworks allow us to "see" in new and different ways what might otherwise seem ordinary and familiar. Framing future work on first-year seminars according to socialization, social capital, or social exchange theory may be a particularly fruitful direction for research. For example, future researchers might examine closely the quality of peer interactions and social networks among FYS participants.

Finally, the current study suggests that the effects of first-year seminars may not be consistent across groups. For instance, high-achieving women have higher predicted satisfaction levels than their male counterparts. This seems to underscore an important consideration in examining college impacts—namely, conditional effects. "As the American undergraduate student population grows increasingly diverse, we should expect conditional effects of this type to be the norm, much more the rule than the exception (Cruce, Wolniak, Seifert, & Pascarella, 2006, p. 379). An extension of this finding that deserves future testing is that FYS might benefit men and women differently. Exploring such sex differences would augment the extant literature on first-year students and seminar programs.

This study is significant for several campus constituencies. One group that might benefit from the results of this study includes those who work in student success centers or those who manage first-year seminars. Results from this analysis raise questions about the inherent value of first-year seminars and may point to important considerations for program development and continuous improvement. For instance, those who participated in first-year seminars did not differ from their counterparts in terms of academic and social integration and satisfaction with college. These findings are inconsistent with those reported by some scholars (Upcraft, Gardner, & Associates, 1989), but reflective of those reported by others (e.g., Chapman & Reed, 1987; Davis, 1992). Of course, there is at least one possible hypothesis to explain these differences across studies. Unlike the academic-focused seminars championed by Gardner (1986), recall that the first-year seminars considered in this study were more akin to "orientation courses" that may or may not address student adjustment issues directly. To the extent that this is true among the sample, there may be less cause for concern about the general impact of first-year seminars and more cause for incorporating such topics in future courses of this kind. Student success directors might use these results to assess the nature and content of first-year programs recognizing that not all programs are made equal.

The present study also had significance for future research. Determining whether the effect of first-year seminars on student outcomes is mediated by race/ethnicity will require access to larger minority student samples. Future research might incorporate aggressive recruiting strategies that promise to yield a sufficient number of persons of color. Alternatively, researchers might draw their samples from historically Black- and Hispanic-serving institutions, which enroll large numbers of minorities (Strayhorn & Hirt, 2008).

The present study's results suggest that FYS participants do not differ from their non-FYS peers in terms of grades, sense of belonging, or satisfaction in college. While different in focus, an early study by Nelson (1941) found that students who enrolled in orientation courses knew more about college than their peers. It may be the case that FYS participants know more about their particular campus than those who do not participate in seminars. Future research might examine this issue by measuring differences between these groups (e.g., knowledge about campus leaders, available supports, and institutional history).

Last, survey methods and quantitative techniques for analysis were employed in the present study. Those who study first-year seminars might

conduct qualitative studies with “information rich” participants (Patton, 1990) to provide a more nuanced understanding of the value-added features of first-year seminars. Similarly, future work on college impact would benefit from mixed methods studies in which quantitative and qualitative are blended together sequentially or simultaneously (Pascarella, 2006).

Limitations

This study has several limitations. First, it examined the experiences of students enrolled at one institution in a particular type of seminar. A different kind of seminar may have yielded different results. It is also possible that staff members and graduate students, who volunteered to teach sections of the first-year seminar, may have been less skillful at enhancing first-year students’ commitment to their educational goals than regular classroom instructors. To the extent that this is true, it may have a confounding effect on the study.

Secondly, the study’s central constructs (e.g., sense of belonging) were latent measures or complex abstractions. Measures employed in this study may have only partially reflected that complexity. Thus, the results of this study might have been different had other conceptualizations of each measure been used. Future researchers should adopt additional measures, where possible, to assess the central constructs. A meta-analysis of how these constructs are measured across a number of studies within a bounded period of time might also be a promising direction for future research.

While helpful to understand, these limitations do not diminish the study’s usefulness and its contributions to the existing literature on first-year seminars.

Conclusion

In sum, this study extends our understanding about the effects that first-year seminars have on correlates of student retention. While much is still unresolved, it seems clear that the nature and scope of first-year seminars matter. Additionally, high-achieving women tend to be more satisfied with college in general than their lower-achieving and male counterparts. This finding seems particularly important given the rapid increase in the proportion of women entering college (U.S. Department of Education, 2006). Results such as those reported in this article can help faculty and staff work with first-year students to maximize their potential and succeed in college. While

first-year seminars are largely designed to assist students in their adjustment to college, mere participation does not guarantee integration or satisfaction. Based on findings from this analysis, educators should design first-year seminars that integrate both academic and social learning outcomes.

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