

# The Freshman Year Experience: Student Retention and Student Success

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*This ex post facto controlled investigation was conducted from 1993 to 1996 at a medium sized, regional, predominantly White, public, four-year university in the Midwest to determine the relationship between participation in the institution's freshman year experience course and student retention and success. Students who participated in the course were found to continue their enrollment to the fall term of their second year at a higher rate, complete more of the first academic year, earn higher cumulative grade point averages, and have higher ratios of earned credit hours in relation to the number of credit hours attempted.*

The changing demands of the workplace necessitate that a higher percentage of the population acquire the skills associated with a college education, including complex cognitive skills such as reflection and critical thinking (*Student Learning Imperative*, 1997). Students who have training in the arts and sciences are prepared to meet the challenges of this shifting work environment. People with college degrees continue to earn over 50% more than those who have finished only high school (Mishel & Bernstein, 1994). This goal of earning higher wages often motivates students who may have varying levels of academic preparation for and understanding of the purposes of a college or university education to enroll in post-secondary institutions.

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Some faculty members and administrators argue that students with low standardized test scores and with deficiencies in written composition or mathematics are unable to succeed in a college or university classroom. At the same time, college and university administrators place a high value on student retention and student success, demanding that faculty and staff meet the academic needs of the students who have been admitted. Edwards (1993) noted that "the term *disadvantaged college student* is an oxymoron. Those we see are only the few survivors. The truly disadvantaged never even approach the campus gate" (p. 317).

Student-faculty interaction in and out of the classroom has been shown to promote student academic integration and, ultimately, persistence (Gordon & Grites, 1984; Kuh, Schuh, & Whitt, 1991; Thomas, 1990). Moreover, higher education institutions are addressing themes of student transition and adjustment challenges by using such student development programs as freshman-year experience courses (Upcraft & Gardner, 1989; Zarvel et al., 1991).

Studies confirm that students who enrolled in freshman-year experience courses tend to complete more credit hours, earn higher cumulative grade point averages, and return to the institutions at higher rates than students who did not enroll in such first-term courses (Cuseo, 1991; Davis, 1992; Fidler, 1986; Hyers & Joslin, 1996; Richardson, 1994; Strumpf & Hunt, 1993). These results occurred even though the students who did not enroll in freshman-year experience courses were frequently described as being more academically qualified, on the basis of standardized test scores and high school ranks, than were the students who enrolled in the courses.

In order to draw reliable conclusions about the effectiveness of freshman-year experience courses, some skeptics have called for research projects with control groups of students who share similar characteristics at the time of entry to the institution. The purpose of this study was to determine the relationship, if any, between participation in an institution's freshman-year experience course and student retention and success for first-year students who enrolled in the course, using a control group of similar first-year students who elected not to enroll in the freshman-year experience course.

## Methods

### Participants

The population consisted of all first-year students ( $N=3,084$ ) admitted and enrolled for Fall 1993, Fall 1994, and Fall 1995 at a medium-sized, regional, predominantly White, public, four-year university in the

Midwest. The experimental group consisted of first-year students enrolled in the institution's freshman-year experience course for Fall 1993, Spring 1994, Fall 1994, Spring 1995, Fall 1995, and Spring 1996. The researchers hand-selected the control group from the first-year students who elected not to enroll in the freshman-year experience course but who matched the students in the experimental group on the following attributes: enhanced ACT composite score, age, originating county, high school rank, high school grade point average, University-determined course placement, ethnicity, and gender. In addition, the two groups were matched on the basis of the first term's pre-college level courses in basic writing, beginning algebra, and college reading. Neither group included students who had withdrawn from the freshman-year experience course or who had enrolled in the institution's study skills course.

### Procedures

The institution's Office of Admissions and Records generated individual reports in October 1996 that contained the entry information for first-year students admitted and enrolled for Fall 1993, Fall 1994, and Fall 1995. Class lists for the terms of Fall 1993, Spring 1994, Fall 1994, Spring 1995, Fall 1995, and Spring 1996 provided the student identification numbers for students enrolled in each section of the freshman-year experience, basic writing, beginning algebra, and college reading courses. In order to match students in the control group with those in the experimental group on the combination of academic development level courses, the student data on all of the pertinent class lists were coded to show the specific combination of courses in which an individual student was enrolled during his or her first semester on campus.

Once the final sample of students in the experimental and control groups was identified, the completion rate for the first academic year, the cumulative grade point average earned, the percent of general education courses completed, and the ratio of earned credit hours to attempted hours were determined by reviewing each student's transcript. The four academic characteristics for each student were taken at the end of the spring term of the first year of enrollment at the institution.

### Analysis

Findings from this *ex post facto* investigation were based on the academic characteristics for the experimental group ( $n=431$ ) and the control group ( $n=431$ ). Chi-square statistical analyses were performed to test the difference in second year persistence and completion rate of the first academic year. *T*-test statistical analyses were performed to test the differences in means of the cumulative grade point average earned, the percent of general education courses completed, and the ratio of earned credit hours to

Table 1

Description of Characteristics upon Entry  
for the Final Sample and the Population

Characteristics upon Entry	Experimental (n=431)	Control (n=431)	Population (N=3,084)
Mean ACTE composite score	18	18	21
Mean age	18	19	25
Mean high school rank	64	61	65
Mean high school GPA	2.79	2.76	n/a
% receiving the given university-determined placement test level at admission			
No test: met minimum competence	3	3	18
English, Mathematics, Reading	68	67	32
English, Mathematics	6	7	7
English, Reading	10	10	12
English	10	10	27
Other	3	3	4
Ethnicity (%)			
White, non-Hispanic	48	56	78
Black, non-Hispanic	48	40	18
Other	4	4	4
Gender (%)			
Male	38	41	44
Female	62	59	56

attempted hours during the freshman year. A bivariate correlation statistical analysis was performed to measure the association between all of the variables. A multiple regression statistical analysis was performed to assist in understanding the relationship between participating in the freshman-year experience course and student academic outcomes. All statistical analyses assumed a .05 level of significance.

The final group of 862 students represented 28% of the first-year student population. Table 1 presents descriptive information concerning the matching characteristics upon entry not only for the experimental and control groups but also for the first-year population as a whole. A limitation of the study was that ethnicity and gender could not be matched in every case between the experimental and control groups. This resulted in the control group having a higher percentage of White, non-Hispanic students and male students than the experimental group, but a *post-hoc*

investigation of the final sample that equalized the number of White, non-Hispanic students and male students was found to have results that did not significantly differ from the main study.

## Results

Table 2 presents a summary of the differences in the academic characteristics between the experimental and control groups. Students who participated in the institution's freshman-year experience course continued their enrollment to the fall term of their second year at a higher rate than students who did not participate in the course ( $p < .05$ ). Specifically, 63% of the students who chose to participate in the freshman-year experience course re-enrolled for the fall term of the second year, while 56% of the students who elected not to participate in the course persisted to the second year.

Table 2

### Mean Academic Characteristics, by Participation in Freshman-Year Experience Course

Academic Characteristics	Participated in Freshman-Year Experience Course	
	Yes ( <i>n</i> =431)	No ( <i>n</i> =431)
Return rate for second fall term (%)*	63	56
Completion rate of freshman year (%)*		
Completed both fall and spring terms	85	80
Completed fall term only, withdrew spring	6	5
Completed fall term only, did not begin spring	7	10
Withdrew fall term	2	4
Completed spring term only, withdrew fall	0	1
Mean cumulative grade point average*	2.17	1.99
Mean percent of general education hours completed	28	29
Mean ratio of earned credit hours to attempted credit hours*	.68	.62

\* $p < .05$

Students who participated in the freshman-year experience course also tended to complete more of the first academic year than students who did not choose to participate in the course ( $p < .05$ ). For example, more students who enrolled in the freshman-year experience course completed

both fall and spring terms compared to the control group. Conversely, more students who did not participate in the course elected not to return to the institution for the spring term as compared with those students who participated in the freshman-year experience course.

Students who participated in the freshman-year experience course tended to earn higher cumulative grade point averages than did students who elected not to participate in the course ( $p < .05$ ). There is practical significance between having a mean grade point average of 2.17 on a scale of 4.00 (earned by students who took the course) and 1.99 (students who elected not to take the course). The institution that served as a locale for the study places a student on academic probation whenever the cumulative grade point average falls below 2.00. A student is subsequently suspended from the institution if his or her next semester grade point average is below 2.00. The students who took the freshman-year experience course were more likely to be in good academic standing at the end of first year, while students who did not participate in the course were more likely to be at risk of suspension from the institution after the next term of enrollment.

Taking the freshman-year experience course did not appear to significantly affect the percent of general education courses completed by the students. Both groups of students completed fewer than one-third of their general education requirements by the end of the first year of enrollment. Students who participated in the freshman-year experience course, however, tended to have higher ratios of earned credit hours in relation to the number of credit hours attempted than those students who did not take the course ( $p < .05$ ). The institution from which these students were selected defines satisfactory academic progress for undergraduate financial aid recipients with fewer than 37 cumulative attempted hours as earning credit for a minimum of 60% of the credit hours attempted. In addition, financial aid recipients with 37 to 60 cumulative attempted hours need to pass at least 65% of the credit hours attempted. Students earn credit by receiving a grade of A, B, C, D, or P for a course. On average, students who participated in the freshman-year experience course earned 68% of the attempted credit hours, a progression rate appropriate for students who have attempted more credit hours. Consequently, students who took the freshman-year experience course were not as likely to risk losing financial assistance and thereby be forced to stop out in order to earn money to pay their university expenses.

While there is a moderately high correlation between cumulative grade point average and ratio of earned credit hours to attempted credit hours ( $r = .76$ ), the association levels between participation in the freshman-year experience course, returning to the institution for the second year,

completion of the freshman-year, cumulative grade point average, percent of general education completed, and ratio of earned credit hours to attempted credit hours are within appropriate limits that allow for an interpretation of a multiple regression analysis.

Participation in the freshman-year experience course accounts for 4% of the variance in the amount of the first year the students completed, the cumulative grade point averages the students earned, the percent of general education requirements the students completed, and the ratio of credit hours the students earned to the number of hours attempted. The *beta* weights given in Table 3 are helpful in understanding how participation in the freshman-year experience course at this institution is related to these four academic outcomes. In this study, cumulative grade point average earned ( $p < .05$ ), ratio of earned hours to attempted hours ( $p < .05$ ), and completion rate of freshman-year have positive magnitudes, and the percent of general education completed has a negative magnitude ( $p < .001$ ). Although there is no causal effect between participating in the freshman-year experience course and completing more of the first academic year, earning higher cumulative grade point averages, completing similar percentages of general education requirements, and having higher ratios of earned hours to attempted hours are positive for a group of students who had entered the institution with lower average ACT composite scores, were more likely to have deficiencies in written composition and mathematics skills, and included a higher proportion of minority students than the population of all first year students.

Table 3  
Regression of Effectiveness of Participation  
in Freshman-Year Experience Course on Academic Characteristics  
( $N=862$ )

Academic Characteristics	Participated in Freshman-Year Experience Course
Completion rate of freshman year (%)	.02
Cumulative grade point average	.13*
Percent of general education hours completed	-.25***
Ratio of earned hours to attempted hours	.13*
Multiple R	.20
Adjusted R Square	.04

\* $p < .05$ ; \*\*\* $p < .001$

Table 4

Description of Characteristics for Freshmen  
with Completion of Attempted Hours > 60%

Characteristics	Participated in Freshman-Year Experience Course	
	Yes	No
Percent of original sample	67	56
Mean ACTE composite score	18	19
Mean ratio of earned credit hours to attempted credit hours	.88	.87
Mean cumulative grade point average	2.58	2.55
% receiving the given university-determined placement test level at admission		
No test: met minimum competence	4	5
English, Mathematics, Reading	63	60
English, Mathematics	5	7
English, Reading	12	12
English	13	14
Other	3	2
Ethnicity (%)		
White, non-Hispanic	54	66
Black, non-Hispanic	41	30
Other	3	2

Table 4 displays the differences in student attributes between the experimental group and the control group from a *post-hoc* investigation of students who earned 60% or more of the credit hours attempted during the first year. A greater number of students who participated in the freshman-year experience course earned 60% or more of the credit hours attempted than did students who were not enrolled in the course. These results may be considered within other contexts as well. When compared with the group of students who did not enroll in the freshman-year experience course who achieved this earned hour ratio, the group of students who took the freshman-year experience course and achieved this earned hour ratio: had lower average enhanced ACT composite scores; included a higher proportion of the students who required developmental courses in all three subject areas; and were represented of a lower proportion of white, non-Hispanic students. Yet, on average, they had a similar earned credit hour ratio and cumulative grade point average.



## Discussion

### Key Findings and Implications for Student Retention

It is possible to infer from the findings from this medium sized, regional, predominantly White, public, four-year university study that a freshman-year experience course has a positive influence on the persistence of some first-year students. Students who enrolled in the freshman-year experience course persisted to their second year of study at the university at a significantly higher rate and completed more of the first academic year than those students who elected not to enroll in the course ( $p < .05$ ).

Several factors may have contributed to the increased likelihood of persistence for the students who participated in the freshman-year experience course at this institution. Students who elect to enroll in a freshman-year experience course tend to be more highly motivated to succeed than those who do not. Rather than leaving these highly motivated students to succeed on their own, institutions have the opportunity to influence positively the levels of these students' learning through freshman-year experience courses. For example, the freshman-year experience course is the primary opportunity, besides the other orientation activities, for students to learn what a university has to offer and the expectations of faculty members. The faculty assists the students in understanding that a purpose of a liberal education is to encourage them to confront some of life's most fundamental dilemmas (Astin, 1993). Thus, the curriculum of this course includes such topics as understanding the goals of the university, planning a career and choosing a major, making ethical decisions, and learning time management skills to support academic success.

Additionally, the actual format of the course tends to be strongly student-centered with active student involvement because the administrators of the program specifically recruit faculty who are known for their effectiveness in working with first-year students. The sections are team-taught by one faculty member and one administrative staff member in order to increase the instructor-student ratio. This provides the students with a better chance of developing a relationship with a member of the faculty who cares about their transition to the university during that first semester. It also introduces students to a staff member who is in a good position to help them make a smooth adjustment by encouraging involvement in campus life activities and organizations.

The manner in which the freshman-year experience course was organized and designed on this campus mirrors the opportunities offered for alliances between student affairs and academic affairs that are present in freshman-year experience courses at other institutions. Administrators

and faculty members who make the commitment to support these courses on their campuses relay a clear message both to current students and potential students that their campuses place a high priority on the academic success of their students and on the students' desires to persist through graduation. In addition, these administrators and faculty members are demonstrating their interest in enhancing the students' subsequent educational, psychosocial, and cognitive developmental experiences at their institutions (Murphy, 1989).

The cost-benefit implications for offering freshman-year experience courses to increase student retention are also important. Using the findings from this study as an example, the difference between retaining 63% of the students who would otherwise only persist at a rate of 56% means that for every 100 students, seven more students will return to the institution, continue their enrollment, and continue to pay tuition and fees. Thus, if the annual cost of offering this type of freshman-year experience course were \$50,000 for 300 students, then the expenditure could be recovered in one year, assuming a resident undergraduate student tuition of \$2381 per year.

#### Key Findings and Implications for Student Success

This study supports the findings from colleges and universities across the country that freshman-year experience courses can be an effective strategy for increasing the success and development of students during their first year of college. This study found that students who enrolled in the freshman-year experience course at this institution tended to have higher cumulative grade point averages and higher earned credit hour ratios of attempted credit hours than students with similar characteristics at the time of entry to the institution who elected not to enroll in the course ( $p < .05$ ).

Furthermore, student success can be measured in ways other than numeric grade point averages and ratio of credits earned. Course evaluations were on file from 67% of the students in the experimental group from this study. These evaluations showed that the majority of students agreed or strongly agreed that taking the course: a) assisted their understanding of the purposes of a university education; b) helped them to feel more comfortable as members of the campus community; and c) increased their belief that they could succeed at this particular institution. These students' evaluation of the course support the premise that deliberate attention helps students in their first year learn such things as developing academic and intellectual competence and gaining a sense of their identity (Pascarella & Terenzini, 1991; Upcraft & Gardner, 1989).

The combination of student persistence and academic success that were found in this study to be related to participation in the freshman-year experience course are further enhanced by student affairs administrators who nurture and mentor students to become leaders and role-models in organizations on campus. The next step is for freshman-year experience courses to become vehicles that promote learning communities that actively involve residence hall coordinators, student union administrators, counseling center professionals, and others in student affairs. Institutions where freshman-year experience courses involve student affairs administrators in all stages of program design and instruction tend to have strong, broad-based institutional support and continued effectiveness on student success from year to year (Barefoot & Fidler, 1996).

At all opportunities, student affairs administrators who care about the success and development of the students at their institutions can take intentional and deliberate steps to maintain (or initiate) personal involvement in the effectiveness and content of the freshman-year experience courses. Student affairs administrators can become involved by being team-instructors in sections of the freshman-year experience courses on their campuses. Another way to maintain involvement is to lead the preparation sessions for new instructors who teach the courses. Topics for such sessions might include student development theory, principles of group dynamics and group facilitation skills, techniques for learning names, values clarification, using career and personal interest inventories, campus resources, understanding common issues and problems (e.g., health issues, alcohol/drug abuse, relationships, homesickness, etc.), fostering community, and diversity issues (Gardner, 1992).

While freshman-year experience courses have been shown to aid student success, there are additional ways colleges and universities can continue to support students after this one-term course. Suggestions for providing additional support to students include freshman interest groups, residence living groups, and seminar memberships that continue to the students' second term; activities of a community-building type that last through the second term; strong tutorial and supplemental instruction, along with integrated study groups, through course and instructor planning; and extracurricular activities that bond students to faculty, staff, and the institution.

Colleges and universities have ethical responsibilities to the students they admit and enroll every semester. Collaborative efforts involving student affairs and academic affairs through freshman-year experience courses can provide a strong institutional response to the multiple needs of first-year students by providing the foundation for developing them into mature, life-long learners and successful adults. Indeed, such efforts are

active steps in a positive direction for integrating the “yin and yang” of student learning in college that is needed today (Blake, 1996).

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