

## THE *EMPIRICAL* CASE FOR THE POSITIVE IMPACT OF THE FIRST-YEAR SEMINAR RESEARCH ON STUDENT OUTCOMES

*Joe Cuseo*

In their meticulous synthesis of more than 2500 postsecondary studies relating to how college programs and experience affect student development, Pascarella and Terenzini concluded that, “The weight of the evidence suggests that a first-semester freshman seminar is positively linked with both freshman-year persistence and degree completion. This positive link persists even when academic aptitude and secondary school achievement are taken into account” (pp. 419-420).

It is also reasonable to conclude that there has been more carefully conducted research on, and more compelling empirical evidence gathered for, the first-year seminar than any other *course* offered in the history of higher education. Traditional discipline-based courses have never had to document their effectiveness because the sheer force of academic tradition and the potent power of departmental territoriality have assured their perpetual place in the college curriculum.

The two most frequently assessed outcomes associated with the first-year seminar have been its impact on (a) *retention* (persistence) and (b) *academic performance* (achievement). Using virtually all major types of *research methods* (quantitative and qualitative, experimental and correlational), positive course impact on these outcomes have been reported for all types of *students* (e.g., at-risk & well-prepared, minority & majority, residential & commuter) across all institutional *types* (2- & 4-year, public & private), *sizes* (small, mid-sized, large), and *locations* (urban, suburban, rural). As Barefoot and Gardner note, “First-year/student success seminars are remarkably creative courses that are adaptable to a great variety of institutional settings, structures, and students” (1998, p. xiv). While not every research study on the first-year seminar has demonstrated that the course has significantly positive effects on student outcomes, many individual institutions have conducted campus-specific research on the course and report that it is positively associated with important student outcomes. (And, to best of the author’s knowledge, there have been no published studies indicating that participation in a first-year seminar has had significantly negative or adverse effects on the college success of first-year students.)

Extensive survey research conducted by the National Resource Center for The First-Year Experience indicates that the first-year seminar is offered as an *elective* course at the majority of postsecondary institutions (Barefoot & Fidler, 1996; National Resource Center, 1998). This probably accounts for the fact that most research on first-year seminars has involved a *quasi-experimental* (a.k.a., *matched-pair*) design, whereby course outcomes for students who elect (volunteer) to take the course are compared with those of a “matched” control group—i.e., first-year students are not enrolled in the course but whose personal characteristics are similar to (match) those of course participants with respect to important student variables that may affect program outcomes (e.g., high school GPA or rank, standardized college-admission tests—ACT/SAT, residential status—commuter/on-campus).

It must be acknowledged that, while controlling for these potentially confounding demographic variables, the matched control group in the quasi-experimental design still does not control for “volunteer effect” or “self-selection bias,” i.e., the possibility that students who voluntarily choose to participate in the course (select themselves into it) may be more intrinsically motivated and committed to college success than students who elect not to take the

course. One strategy that has been used at the University of South Carolina to address the possible confounding effect of self-selection associated with the quasi-experimental design is to survey course participants and their matched non-participants to assess whether they differ in their reported level of college motivation (e.g., perceived importance and likelihood of completing their degree, willingness to participate in campus activities and student organizations). Comparisons of survey responses provided by course participants and non-participants have revealed no differences between the two groups in their college-motivation survey scores, thus suggesting that the seminar's positive impact on course outcomes (e.g., student retention) is not likely to be merely an artifact of course self-selection by students with higher levels of educational motivation (Fidler, 1991).

There have been two published studies on the first-year seminar that have employed a true *experimental* design, whereby students are randomly assigned either to take the course (experimental group) or not take the course (control group). One was conducted at the University of Maryland at College Park and the results indicated that, relative to the control group, students who took the course displayed significantly higher rates of retention (with good academic standing) throughout their first four semesters on campus (Strumpf, & Hunt, 1993). More recently, a study was conducted at Bloomsburg University (PA) in which students were assigned randomly to be course participants or non-participants. Results revealed that course participants reported higher levels of both academic and social integration on a standardized, externally validated instrument—e.g., more interactions with peers and with faculty outside the classroom, greater use of student services and participation in student clubs and organizations, and greater commitment to institutional and educational goals (Yale, 2000).

It should also be noted that two institutions have circumvented the volunteer effect by requiring the first-year seminar for all its students, and then using a *time-series* research design to assess the course's impact. In this design, outcomes assessed after adoption of the course are compared with the same outcomes achieved prior to course adoption. Thus, past cohorts of freshmen who did not experience the seminar provide a type of "historical" control group—against which the effects of subsequent cohorts of first-year seminar participants are compared. For example, at Ramapo College (New Jersey), a time-series design was employed to provide evidence that the average freshman-to-sophomore retention rate for cohorts of entering students who participated in the seminar during a five-year period immediately after the course became a requirement was significantly higher than the average retention rate for freshmen who had entered the college during the three-year period immediately before course adoption. (Starke, Harth, & Sirianni, 2001). Similarly, the time-series design was used at Averett College (VA) to demonstrate a 26% reduction in freshman-to-sophomore attrition rate and a 24% drop in the percentage of freshmen who ended their first year in academic difficulty (Vinson, 1993). (Note: No changes in student-admission standards and no other major student-retention interventions were adopted by these colleges during the time period when the research was conducted.)

What follows in the next section is a synopsis of specific *retention* and *academic-achievement* outcomes associated with the first-year seminar that showcases a sample of institutions across the country that have reported positive course impact on student retention and academic achievement. When reviewing empirical evidence to inform decisions about whether or not to adopt or expand a first-year seminar, it should be kept in mind that the goal is to identify one or more kindred institutions that have marshaled impressive empirical evidence in support of the course's positive impact—which may then serve as a "benchmark" for emulation and replication.

The primary purpose of assessment is to improve the quality of our campus programs and the success of our students and to do so as quickly as possible. Even if you were to find a single institution with an empirically well-supported seminar where the student body and college mission are comparable to your own, this may serve as a useful paradigm that may be adapted or adopted, and eventually assessed by the investigating institution.

#### ◆ **STUDENT RETENTION OUTCOMES**

Based on her 10-plus years of experience reviewing research studies on the first-year seminar as Co-Director for Research & Publications at the University of South Carolina's National Resource Center for The First-Year Experience, Betsy Barefoot (2000) recently concluded, "We are building a body of research that seems to indicate that yes, first-year seminars are positively correlated with improved student retention" (p. 1). Listed in this subsection of empirical evidence is a selected sample of campus-specific studies supporting Barefoot's conclusion.

#### **1. Persistence to Completion of the *First Semester/Quarter of College***

Research conducted at Sacramento City College revealed that students who participated in the first-year seminar persisted to completion of the first term at a rate that 50% higher than non-participants (Stupka, in Barefoot, 1993a).

#### **2. Persistence to Completion of the *First Year of College***

Research conducted at Miami-Dade Community College has shown that course participants display a 67% first-year retention rate, compared to a rate of 46% for non-participants (Belcher, in Barefoot, 1993). At the University of South Carolina, a series of separate studies of first-year student cohorts enrolled in University 101 (first-year seminar) revealed that, for 16 consecutive years, students who took the seminar were more likely to persist to the sophomore year than first-year students who did not take the course. In 11 of the 16 years, these differences reached statistically significant levels, despite the fact that course participants had higher course loads and lower predicted academic success—as measured by standardized-admissions test scores (Fidler, 1991).

At Ramapo College (New Jersey), a "time-series" research design has been employed to demonstrate that the average freshman-to-sophomore retention rate for cohorts of entering students who participated in the first-year seminar during a five-year period immediately *after* the course became a requirement was significantly higher than the average retention rate for freshmen who had entered the college during the three-year period immediately *before* course adoption (Starke, Harth, & Sirianni, 2001).

At Widener University (PA), freshman seminar participants returned for their sophomore year at a rate that was approximately 18% higher (87.3% vs. 69.6%) than their expected return rate—as predicted by entering SAT scores (Bushko, 1995).

#### **3. Persistence to Completion of the *Sophomore Year***

At the University of Maryland, an "experimental" research design was employed whereby students who were randomly selected to participate in the first-year seminar displayed significantly higher retention rates throughout their first four semesters in college compared to a randomly selected control group (Strumpf & Hunt, 1993).

#### **4. Cumulative (Total) Number of College Units/Credits Completed**

Research conducted at Sacramento City College revealed that course participants completed 326% more units than non-participants (Stupka, in Barefoot, 1993a). At Oakton Community College (IL), course participants went on to complete 39 units, whereas non-participants completed 26 (Deutch, in Barefoot et al., 1998).

#### **5. Persistence to Degree/Program Completion**

At North Dakota State University, a longitudinal study of 1700 students was conducted on four classes of entering student cohorts. Entering students who participated in a first-year seminar during were matched with non-participants with respect to a variety pre-college characteristics that included ACT composite scores, high school rank, size of high school graduating class, and intended academic major. Chi-square tests revealed that the 4- and 5-year graduation rates for seminar participants were significantly higher than the graduation rates for the matched non-participants (Schnell, Louis, & Doetkott, 2003).

These results are consistent with research conducted at colleges and universities. For example, in a study conducted at the University of Prince Edward Island (Canada), it was found that 49% of course participants persisted to completion of the baccalaureate degree, versus 28% of non-participants (Robb, in Barefoot, 1993a). At Ohio University, 4-, 5- and 6-year graduation rates were higher for course participants than non-participants (Chapman & Kahrig, in Barefoot et al., 1998). At Dalton College (a 2-year commuter campus in the University of Georgia system), institutional researchers tracked students over a 5-year period and found that 30.8% of course participants met the 90 quarter-hour requirement for graduation, as compared to 19.4% of non-participants (Hoff, Cook, & Price, 1996).

#### **6. Time Taken to Degree/Program Completion**

Research at Keene State College (New Hampshire) has shown that 29% of course participants graduate within four years, versus 16% of non-participants; and 52% of course participants graduate within 5-1/2 years, compared to 35% for non-participants (Backes, in Barefoot et al., 1998).

### **◆ ACADEMIC PERFORMANCE/ACHIEVEMENT OUTCOMES**

Evidence for the positive impact of first-year seminars on students' academic performance is not as consistent as it is for student retention (Barefoot, 2000). Nevertheless, there have been a number of campus-specific studies that indicate that student participation in the seminar is associated with improved academic performance—as measured by different academic-achievement indicators, such as the seven highlighted in the following section.

#### **1. Cumulative GPA Attained at the End of the First Term or First Year of College**

Research conducted at Genesee Community College (NY) revealed that course participants earned a first-term GPA of 2.87 relative to a matched control group of non-participants who earned a 2.38 GPA (Wahlstrom, in Barefoot, 1993a). At Northern Illinois University, five consecutive first-year cohorts were compared with a matched group of non-participants, and it was found that students who took the course earned significantly higher first-term and first-year GPAs (House, in Barefoot et al., 1998).

## **2. Cumulative GPA Attained *Beyond the First Year of College***

At Indiana University of Pennsylvania, an “experimental” research design was used in which high-risk students were randomly assigned to either register or not register for the first-year seminar. Students who successfully completed the first-year seminar achieved significantly higher GPAs ( $p < .01$ ) over a 3-year period than the control group of students who did not take the course (Wilkie & Kuckuck, 1989).

## **3. GPA Attained vs. GPA Predicted**

At Indiana University of Pennsylvania, the predicted GPAs of randomly-selected course participants and non-participants were found to be equal at the outset of college, yet the cumulative GPAs attained by course participants at the end of their first, second, and third years of college were significantly higher than the GPAs of students who did not take the course (Wilkie & Kuckuck, 1989).

## **4. Total Number of First-Year Students in *Good Academic Standing* (i.e., Students *Not Placed on Academic Probation or Academically Dismissed*)**

At the University of Maryland, research has shown that the number of course participants who completed the first two years of college in good academic standing was significantly higher than it was for students who did not participate in the course (Strumpf & Hunt, 1993). At Northern Michigan University, significantly higher percentages of first-year seminar participants than non-participants maintained good academic standing (GPA of at least 2.0) over their first five semesters in college (Soldner, in Barefoot et al., 1998). After Averett College (a small liberal arts college in Virginia), adopted a required first-year seminar—without changing enrollment patterns or embarking on any other major retention efforts—the percentage of freshmen who ended their first year in academic difficulty dropped 20% (Vinson, 1993).

## **5. Total Number of First-Year Courses *Passed* (i.e., *Not Dropped or Failed*)**

Research conducted by a consortium of four community colleges in North Carolina revealed that course participants completed an average of nine more units by the end of their first year of college than did non-participants (Garret, in Barefoot, 1993a).

## **6. Total Number of First-Year Courses Completed with a *Grade of “C” or Higher***

Research conducted at Sacramento City College revealed that course participants completed four times as many math classes, three times as many writing classes, and twice as many reading classes with a grade of “C” or higher than students who did not participate in the course (Stupka, in Barefoot, 1993a).

## **7. Percentage of Students Who Qualify for the *Dean’s List and Honors Program***

At the University of Vermont (where the first-year seminar is taught as an introduction to the liberal arts and sciences, with an emphasis on critical/creative thinking, research skills, and oral/written communication skills), the percentage of students who made the Dean’s List and were accepted into the school’s honor program was significantly higher among course participants than non-participants (Thomson, in Barefoot et al., 1998).

### *Summary & Conclusion*

As the foregoing studies suggest, positive outcomes associated with the first-year seminar undoubtedly have been more carefully and consistently documented than have the outcomes of any other single course in the history of higher education. The positive impact of the course on student retention has been well documented in a wide variety of institutional settings and its effect on academic achievement, though less widespread, is still promising. Some of the inconsistency of findings with respect to the course's impact on academic achievement may be explained by the fact that not all first-year seminars are created equally. For example, some seminars focus more directly and extensively on academic skills and critical thinking than do others.

It appears that one fruitful direction for future research on the first-year seminar is to examine those seminars that have exerted robust effects on student outcomes, with an eye on identifying common elements or recurring themes in their course content and delivery—both pedagogically and administratively. Better yet, it would be useful to compare seminars that have been found to promote positive outcomes with seminars that have not, with the intent of identifying particular features which distinguish or differentiate the two. As those in the assessment business might say, this type of comparative research would enable us to get at the “processes behind the outcomes.”

Another fertile area for future research is to assess the impact of first-year seminars—and their related instructor training-and-development programs—on broader or *systemic* institutional outcomes. Such effects have yet to be systematically assessed and replicated empirically, but there are some campus-specific reports which suggest that the course may have a positive influence on outcomes other than student retention and academic achievement—e.g., faculty development, student involvement in campus life, and student satisfaction with the institution. A summary and description of these potentially more pervasive outcomes of first-year seminars are presented in the following section.

## MOVING BEYOND STUDENT OUTCOMES: POTENTIAL CAMPUS-WIDE IMPACT OF THE FIRST-YEAR SEMINAR ON THE INSTITUTION

Course protagonists not overlook the argument that the first-year seminar has great potential for fulfilling broader institutional needs and objectives, beyond that of promoting student success. The course may not only contribute to essential student outcomes, such as retention and academic achievement, it may also have other positive effects on the *institution*, enabling the college to realize other important organizational goals and intended outcomes. Though the first-year seminar appears to be just a circumscribed course, it can also function more broadly as an educational *program* that is capable of exerting more pervasive, systemic effects—particularly if the course is coupled with a substantive *instructor training* program.

Viewed from this programmatic perspective, the first-year seminar may have the potential for contributing significantly to some or all of the following institutional outcomes: (1) promoting *curriculum* development, (2) stimulating *instructional* development of the faculty, (3) building *campus community* and promoting *professional partnerships* across different divisions or units of the college, (4) promoting *positive perceptions of students* among faculty and staff, (5) enhancing *institutional awareness and knowledge* among faculty, staff, and students, (6) sparking new students' enthusiasm for and commitment to their institution, (7) increasing student utilization of *campus support services* and participation in *campus life*, (8) increasing *student satisfaction with the institution*, (9) facilitating students' *selection of a college major* and *rate of progress* toward degree completion, (10) enhancing *college marketing* and *student recruitment*, (11) enhancing *enrollment management* and *institutional revenue*, (12) *early identification* of first-term students who may be academically “at risk,” (13) serving as a vehicle for gathering *assessment data* on students at *college entry*, and (14) promoting greater *gains in student development* from college entry to college completion.

The wide range of institutional advantages that may accrue as a result of implementing the first-year seminar and its supporting programs (e.g., instructor training and development) suggest that, rather than being an act of self-sacrifice, institutional commitment to the first-year the seminar may constitute an act of self-service.

### ◆ Promoting curriculum development

The first-year seminar can fill a curricular void by ensuring that there is at least one course in the entire college curriculum that is *learner-centered*. Arguably, the first-year seminar may be unique in that it is the only course in the curriculum whose content *originates* with, *derives* from, and *focuses* on—the *learner*—rather than an external corpus of knowledge that reflects the research interests of discipline-based scholars. As one student anonymously wrote in an evaluation of the first-year seminar, “This was the only course that was about me” (Cuseo, Williams, & Wu, 1990. p. 2). Another first-year seminar instructor and researcher describes his students' experience in the first-year seminar with the expression, “We have met the content and it is us” (Rice 1992).

Furthermore, since the seminar is not tightly tied to any one tradition-bound and politically guarded academic discipline, it has the *flexibility* to adopt diverse topics and adapt to emerging higher educational issues and contemporary student needs. It is refreshing to see how readily the seminar has been able to assimilate contemporary issues into its existing course structure (e.g., diversity, critical thinking, service-learning, technology). It appears that the first-year seminar is capable of accommodating different modules, whereby individual instructional units the course can be added, deleted, or rearranged in response to emerging trends. Consistent with this observation are national-survey findings on the content and form of first-year seminars which reveal that the course has assumed many different forms, leading the survey's principal investigators to adopt the term, "flexible fixture" as a collective descriptor of the adaptability of already-established seminars (Barefoot, 1993b).

It is emphasis on development of highly *adaptable and transferable skills* that distinguishes the first-year seminar from most traditional college courses, which tend to focus largely on the acquisition of a circumscribed and prescribed bodies of knowledge. (Any transferable skill development that results as a consequence thereof is usually tacit or incidental to discipline-specific content coverage.) In contrast, it could be said that the seminar has the capacity to perform a "meta-curricular" function—transcending specialized content and traversing disciplinary boundaries by focusing on the development of learning strategies and life skills that have cross-disciplinary applicability.

Another way the first-year seminar enhances curriculum development is by serving as a *gateway or centerpiece* course which introduces students to the meaning, purpose, and value of a *college education*, as well as the academic disciplines that comprise the *liberal arts and sciences*. The content and objectives of the first-year seminar are strikingly *consistent with the ideals and mission of higher education*, and the "education-for-life" skills that are emphasized in the first-year seminar dovetail closely with the "lifelong learning" goals of general education that are cited in almost all college catalogues. Ironically, the goals of general education are person-centered and skill-focused, yet its curriculum is content-focused (Palmer, 1982). The first-year seminar may represent a refreshing addition to the content-dominant, general education curriculum that can redress some of this imbalance by providing a student-centered, skill-focused course experience which clearly reflects the person-centered, skill-focused goals of liberal learning.

Lastly, the first-year seminar may contribute to curriculum development by influencing the range or breadth of college majors that students eventually select. For instance, it might be reasonable to suspect that participation in the first-year seminar, particularly one that includes discussion of the meaning, value, and career relevance of the liberal arts, may serve to increase the number of baccalaureate-aspiring students who eventually major in liberal arts-related fields. One four-year college has already reported that participants in its first-year-seminar are more likely to select a broader range of majors than students who do not participate in the course (University of Maine, cited in Barefoot, 1993a).

#### ◆ **Stimulating *instructional development of the faculty***

This outcome may be attained if the first-year seminar is accompanied by a comprehensive instructor training-and-development program, which is intentionally designed to increase faculty awareness and use of teaching strategies that effectively promote student involvement, learning, and retention. Offering such a program under the aegis of instructor training for the first-year seminar, and making it available to the entire faculty, may provide an effective and efficient



vehicle for stimulating campus-wide improvement in college teaching.

In one of his early reports on the first-year seminar at the University of South Carolina (University 101), John Gardner noted that the course's instructor training-and-development program enabled "faculty to generalize and expand their University 101 teaching innovations beyond the confines of the course and into their regular teaching and work at the university" (1980, p. 7). Similarly, the Chancellor and Vice Chancellors at the University of Arkansas reported that the first-year experience course "helped us institute a culture of innovation with significant impact across our entire instructional program" (Ferritor & Talburt, 1994, p. 97). These anecdotal reports are corroborated by institutional research studies which indicate that first-year seminar instructors: (a) become more "student-centered" in teaching their regular content courses after teaching the first-year seminar (University of Wyoming, cited in Barefoot, 1993a), and (b) are more likely to use innovative instructional strategies in their discipline-based courses that were initially adopted for use in the first-year seminar (Central Missouri State University, cited in Barefoot, 1993a; Montana State University-Bozeman, cited in Barefoot et al., 1998).

At William and Mary University, research comparing faculty who had and had not participated in its first-year seminar instructor training program revealed that (a) faculty participants reported using a larger, more varied group of instructional strategies than do non-participants; (b) students taught by faculty workshop participants are more likely to describe their classroom learning experience as more varied in terms of being exposed to different of instructional strategies in more combinations and contexts; and (c) instructor-training participants receive higher course ratings from their students (Burk, cited in Barefoot et al., 1998). Such institution-specific research evidence suggests that instructor training for the first-year seminar may not only affect how the seminar itself is taught, but that it may also promote positive transfer and exert a positive "ripple effect" on college instruction in general.

Thus, a substantive training program that is structurally linked with the first-year seminar can serve the dual purpose of (a) preparing first-year seminars to teach the course, and (b) providing a highly visible teaching enhancement experience which may serve to trigger campus-wide attention to, and interest in effective undergraduate instruction. Empirical support for this contention is provided by Barefoot and Fidler (1992), who report:

Both on survey instruments and in follow-up personal communications, freshman seminar administrators reported that instructor training workshops offered for freshman seminar instructors often become an institution's first, and perhaps only, systematic focus on freshmen and undergraduate instruction. Such workshops often provide a forum for a campus-wide dialogue on teaching and frequently raise faculty consciousness about the unique needs and characteristics of their first-year students (p. 62).

*Newly hired* faculty, in particular, are likely to express concern about their teaching effectiveness and ability to relate to students (Baldwin & Blackburn, 1981). One way to address this concern is by offering the first-year seminar instructor training experience as a component or, or in conjunction with, a comprehensive *new-faculty orientation* program.

Extending this strategy further, new faculty who become interested in teaching the first-year seminar as a result of participating in the first-year seminar instructor training experience during new-faculty orientation may then be paired with veteran seminar instructors to form *teaching*

*teams*. This would enable the instructor-training program to co-function as a *faculty-mentoring* program, whereby faculty veterans serve as mentors to their new-faculty proteges.

◆ **Promoting *linkages among different college programs, professional partnerships across different divisions or units of the college, and a heightened sense of campus community***

One anecdotally-reported benefit of instructor training programs and subsequent teaching of the first-year seminar is the heightened sense of community that is generated on campus, particularly if members from different divisions of the college are involved in instructor training and seminar instruction (e.g., faculty from different academic disciplines, academic-support and student development staff, and college administrators). The community-building potential of the first-year seminar's instructor training program is reinforced by one of John Gardner's earliest reports on the University 101 program at South Carolina,

The program integrates faculty and professional staff at the university in a joint undertaking [which] tends to reduce the barriers between the faculty and staff camps, reduces stereotyping . . . and has promoted better relationships between faculty and especially student affairs staff (1980, pp. 6 & 7).

More recent reports from institutions where both faculty and staff are involved in planning and teaching the course, such as Marymount College (CA) and Champlain College (VT), indicate that such partnerships have enhanced communication and collaboration between the offices of academic and student affairs (Barefoot, 1993a).

◆ **Promoting *Positive Perceptions of Students among Faculty & Staff***

It is not uncommon for representatives of different institutions who attend First-Year Experience conferences to report that faculty on their campus claim that beginning students seem “better prepared” to meet college expectations and “behave more like college students” after they have participated in the first-year seminar. It has also been the author’s experience that student life professionals report that students have a greater appreciation of, and interest in co-curricular activities as a result of their participation in the course.

More rigorous evidence supporting these observations is provided by campus-specific research reports. For instance, at the University of South Carolina, participants in the first-year seminar’s instructor training program are routinely asked to rate whether their attitudes about students became “more positive,” “less positive,” or were “unchanged” as a result of their participation in the program. Results suggest that the majority of participating faculty report more positive change in attitude following the instruction-training experience. (S. Hunter, personal communication, November 7, 1996). At Montana State University-Bozeman, faculty who taught the seminar reported that the experience led them to perceive first-year students more positively, particularly with respect to their critical thinking skills and intellectual potential (cited in Barefoot et al., 1998). Other institutional research suggests that faculty who teach the seminar report that they become more “student-centered” (University of Wyoming, in Barefoot, 1993), and that their knowledge or understanding of students is enhanced (Central Missouri State University in Barefoot, 1993a).

◆ **Enhancing *Institutional Awareness and Knowledge* among Faculty, Staff, & Students**

Faculty and staff who participate in the first-year seminar instructor training program and serve as course instructors may increase their knowledge or appreciation of the institution's history, mission, and range of services. For example, at Central Missouri State University, 70% of faculty and staff who participated in the seminar's instructor training program reported that the training increased their knowledge of the university (cited in Barefoot, 1993).

Students who participate in the first-year seminar should also be expected to acquire knowledge about campus programs and out-of-class support agents available to them because survey research indicates that this is one of the most frequently reported objectives of first-year seminars offered by institutions across the country (Barefoot & Fidler, 1996).

◆ **Promoting new students' *enthusiasm* for and *commitment* to their college**

One of the primary goals of many first-year seminars is to introduce students to their home institution (Barefoot & Fidler, 1996)—such as its history, mission, and unique or distinctive features. The first-year seminar may be the only occasion in the students' entire college experience that a representative of the institution explicitly attempts to articulate to them where the college has come from, what it is attempting to do, and why it is good to be here. Not only does this practice serve the obvious purpose of enhancing student awareness and knowledge of their own college, it may also serve the more subtle purpose of cementing an *early foundation* for new students' *long-term commitment* to the institution at which they have chosen to begin postsecondary education. John Gardner (1986) points out the importance of introducing this topic to first-term students by likening it to the consumer principle of "post-purchase marketing" or:

The "second sale" in which institutions are trying to help students overcome "buyers' remorse" and instead make a commitment to remain at the institution. This kind of intervention and reselling of the institution appears to be particularly important during the first six weeks or so of the freshman year when the majority of students who decide to drop out during or after the freshman year appear to make this decision (p. 267).

It can also be argued that this increased early commitment not only reduces risk for subsequent student attrition, it may also increase student involvement and effort—because research suggests that if students perceive their institution as being committed to them by providing facilitative experiences (such as the first-year seminar), then they expend more effort at becoming academically and socially involved in the college experience (Davis & Murrell, 1993).

◆ **Increasing student *utilization of campus support services* and *participation in campus life***

It is noteworthy that national survey data indicate that one of the most frequently cited goals of first-year seminars is to increase student use of campus resources and facilities (Barefoot & Fidler, 1996), and campus-specific research conducted at various types of institutions indicate that the seminar is effective for achieving this goal. For instance, at Champlain College (a small, private 2-year college in Vermont), student utilization of the *learning resource center* and *tutoring services* has remained consistently and substantially higher among first-year seminar participants than non-participants (cited in Barefoot et al., 1998). At Bloomsburg University, one of Pennsylvania's 14 state universities, students were randomly assigned to be course

participants or non-participants (thus, controlling for the “volunteer effect”). Results revealed that course participants reported higher levels of both academic and social integration on a standardized, externally validated instrument; for example, participants reported more interactions with peers and with faculty outside the classroom, greater use of student services, higher rates of participation in student clubs and organizations, and greater commitment to institutional and educational goals (Yale, 2000).

At the University of Wyoming (a mid-sized university), there has been an increase in *library circulation* and use of *student services* following institutional adoption of the first-year seminar as a required course (Reeve, in Barefoot, 1993a). At another mid-sized university, the University of North Carolina at Charlotte, students who participated in the seminar reported significantly more *informal contact with faculty* than non-participants throughout their first-year of college (Maisto & Tammi, 1991).

At the University of California-Santa Barbara (a large research university), first-year seminar participants have been found to attend *campus events* and participate in *student government* at significantly higher rates than students who do not take the course (Andreatta, in Barefoot et al., 1998).

#### ◆ **Increasing *student satisfaction with the institution***

One major purpose of the first-year seminar is to *connect students to the institution*, i.e., to its key educational agents, support services, and co-curricular opportunities. Therefore, it may be reasonable to hypothesize that if these connections are initially established via the first-year seminar, they are more likely to continue throughout the entire first-year experience—and perhaps throughout the undergraduate years—thus serving to increase students’ overall satisfaction with the institution and the educational experience it has provided them.

A cogent argument for the importance of assessing the institutional satisfaction of *first-year* students is provided by Barefoot and Fidler (1992):

Systematic assessments of the quality of freshman life should be part of the total assessment procedure. First-year students are often compliant and reluctant to complain about even the most egregious injustices. Institutions must take the initiative in determining the existing quality of life for first-year students both in and out of the classroom (p. 63).

One institution that has taken this assessment initiative is Bethel College (Kansas) where, before the first-year seminar was implemented, ACT Student Opinion Surveys of college sophomores indicated that the college rated below the mean of other colleges of the same institutional type. However, since the college initiated the first-year seminar, student opinions of the institution have improved to the point where it has scored significantly above the mean in a number of areas (Zerger, 1993).

Relevant to this issue of the seminar's impact on students' institutional satisfaction is the historical development of the first-year seminar at the University of South Carolina. This course, which now serves as a national and international model for first-year seminars, originated in a request from the college president who was seeking a vehicle for reducing the reoccurrence of “student riots” triggered previously by institutional dissatisfaction and alienation (Gardner, 1981).

*Student journals*, which are commonly used in the first-year seminar, can be a valuable source

for gaining insight into students' feelings about their college experience and their college. One first-year seminar instructor has crafted a final assignment which requires her students to write a letter to incoming freshmen, advising these prospective students about what to do, and what not to do, in order to be successful during the first semester of college life (L. Rawlings, personal communication, December 19, 1997). Her analysis of the written comments made by students in their letters has not only provided her with useful ideas for developing course topics and course assignments, but it has also provided the college's retention committee with information that has been useful for ascertaining subtle sources of student dissatisfaction with the institution.

The first-year seminar may also be used as a vehicle for assessing and improving student satisfaction with the college by reserving some class time for *open forums* in which students are free to discuss any aspect of college life that they choose. This may be the only time in the students' entire college experience that a representative of the institution actually encourages them to openly express their personal feelings about the college experience and their level of satisfaction with the institution. Student-initiated discussion in such open forums can serve not only as a valuable "cathartic" experience for first-year students, it can also serve as a valuable tool for gathering qualitative data that may be used for purposes of institutional research and improvement. For example, if a substantial number of students cite a particular experience as dissatisfying, this might be viewed as a "critical incident" and it may be used to stimulate institution-wide discussion and intervention. Also, the issues that students raise in open-forum discussions could be used to help construct relevant questions for inclusion on any student-satisfaction survey administered by the college.

John Gardner (1990) has devised a blueprint of campus self-assessment questions for evaluating the first-year experience, one of which is, "Does the campus offer freshmen a structured forum within which to discuss particular issues or campus problems of concern to freshmen?" (p. 7). Open-forum sessions, held within the context of the first-year seminar and centered on focus questions dealing with important aspects of the first-year experience, could provide the "structured forum" suggested by Gardner and may also serve as a vehicle for broader qualitative assessment of institutional practices affecting the quality of first-year student life on campus.

Another major argument for capitalizing on the first-year seminar as a vehicle for assessing students' overall satisfaction with the institution is the well-documented correlation between student *satisfaction* with an institution and student *retention* at that institution (Noel, Levitz, & Associates, 1985). It is noteworthy that student retention pioneer, Lee Noel, and his associates, have developed a student satisfaction survey (the "Noel-Levitz Student Satisfaction Inventory") with national norms for different institutional types (e.g., community colleges, liberal arts colleges, and research universities). The instrument is designed to assess an institution's "performance gap," defined as the *difference* between students' institutional *expectations* and their institutional *satisfaction* (Noel & Levitz, 1996).

Given that a common goal of first-year seminars is to clarify the differences between high school and college, especially in terms of institutional expectations and student responsibilities, it is reasonable to predict that the institutional performance gap between student expectations and student satisfaction will be smaller for students who experience the first-year seminar than for students who do not participate in this course during their first semester of college life.

◆ **Facilitating student *selection of a college major* and *rate of progress toward degree***

### ***completion***

Approximately 50% of all first-year students are undecided about their academic major at college entry, and the remaining 50% of beginning students who have allegedly "decided" their major will eventually change it (Titley & Titley, 1980). It is estimated that, on average, first-year students will change their plans about an academic major three times before college graduation (Gordon, 1984; Willingham, 1985). Some of this indecisiveness and changing plans about intended majors is healthy, perhaps reflecting initial exploration and eventual crystallization of educational goals that naturally accompany personal maturation and increased experience with the college curriculum. However, some of the indecisiveness and vacillation may also reflect confusion, or premature decision-making, due to students' lack of knowledge about themselves or the relationship between college majors and future careers. This can eventuate in longer time to degree completion and graduation because of the need for students to complete additional courses in order to fulfill different degree requirements for the newly selected major. Such delays in degree completion due to student confusion and vacillation regarding their initial selection of an academic major may be one factor contributing to the extended length of time it now takes college students to complete their graduation requirements. Less than half of all college students in America complete their baccalaureate degree in four years (U.S. Bureau of the Census, 1994), and the number of college students who take five or more years to graduate has doubled since the early 1980s (Kramer, 1993).

Indeed, one institutional research study has revealed that first-year seminar participants complete their baccalaureate degree in a time period that is significantly shorter than the time taken by students who have not experienced the course (Central Missouri State University, cited in Barefoot, 1993). The possibility that this reduced time to graduation may be attributed directly to the first-year seminar's effect on promoting earlier and more accurate crystallization of students' college major and career plans is suggested by findings reported at Irvine Valley College—where longitudinal research has been conducted on seminar participants' self-reported academic and career plans prior to the course, immediately after the course, and after the third semester of college. This study revealed that students who participated in the first-year seminar report much more focused career and academic goals at the end of the course and did so, again, after completion of their third semester in college (Irvine Valley College, cited in Barefoot, 1993a).

Lastly, it should be noted that another way in which participation in the first-year seminar may promote students' rate of progress toward degree completion is by improving their academic performance during the first term in college. Research suggests that there is a relationship between higher first-term GPA and shorter time to graduation (Goldman & Gillis, 1989; Young, 1982), and since the first-year seminar has been found to improve students' academic performance during the first term in college (see pp. 5-7), this short-term outcome may also help realize the long-term outcome of reduced time to graduation.

### ◆ ***Enhancing college marketing and student recruitment***

What impact would the availability of a first-year seminar have on attracting new students to the college that offers such a course? Research and scholarship point to the conclusion that high school graduates are confused about what to expect in college (Boyer, 1987) and beginning college students reporting a lack of confidence in their ability to succeed in college without the provision of support or assistance (Astin, 1994). The availability of a first-semester seminar

designed to support students' high school-to-college transition, reduce their anticipatory anxiety, and promote their college success, might serve as an effective recruitment tool if consciously marketed by postsecondary institutions.

Also, if students who experience the first-year seminar do become more involved and successful during their college experience, then these more satisfied customers may be expected to enhance recruitment of new students by "word of mouth."

#### ◆ **Enhancing enrollment management and institutional revenue**

The first-year seminar's well-documented effect on promoting student retention represents not only a service to students, but also serves the institution by maintaining its enrollment—and does so in a manner that is a much more *cost-effective* than student recruitment—which requires substantial institutional expenditures (e.g., hiring of staff, travel funding, and advertising costs). In the early 1980s, student recruitment was estimated to range between \$200-\$800 per student (Kramer, 1982). In contrast, national research suggests that increasing student enrollment via retention efforts is 3-5 times more cost-effective than recruitment efforts, i.e., the cost of retaining one already-enrolled student approximates the cost of recruiting 3-5 new students to the college (Noel, Levitz, & Associates, 1985; Rosenberg & Czepiel; Tinto, 1975). In addition, students who are retained to graduation are much less likely to default on their student loans than students who drop out—due, in large measure, to the fact that graduates are more likely to find gainful employment (Levitz, 1993).

Another fiscal advantage of the first-year seminar is that it is a *cost-effective* program to run. For instance, cost/benefit analysis conducted by the Office of Finance at the University of South Carolina has revealed that for every \$1.00 used to support the first-year seminar program, \$5.36 was generated in return (Gardner, 1981). Similarly, at Bible Baptist College (Missouri), it has been reported that \$5.10 is directly returned to the college in tuition dollars for every dollar invested in their college success course (cited in Barefoot et al., 1998). Institutional reports from Irvine Valley College also suggest that increased student retention and course completion rates attributable to the student success course have, in turn, generated increased revenue for the institution (cited in Barefoot et al., 1993a).

What these campus-specific research reports strongly suggest is that careful evaluation of the benefits of the first-year seminar should involve more than statistical tests of the significance of its effects on students; it should also include consideration of its fiscal effects on the institution. Even if desirable *student* outcomes attributed to the first-year seminar are not found to be *statistically* significant, the seminar's effect on important *institutional* outcomes (such as increased institutional revenue) may still prove to be *practically* significant. For instance, a first-year seminar which results in a very modest 5-10% increase in student retention may produce a gain in the college's total enrollment that does not reach a level of statistical significance. However, the revenue gained from this modest increase in additional tuition-paying customers may contribute significantly to institutional budget—particularly at private institutions whose operational budgets are heavily tuition-dependent; for example, it is estimated that small private colleges typically lose over \$5500 per year for each missing student ("Update," 1983).

#### ◆ **Early Identification of First-Term Students Who May be Academically "At-Risk"**

Evidence gathered at the University of South Carolina suggests that a *failing grade in the first-year seminar* may be a "red flag" that calls attention to students who will later experience

academic problems or attrition (Fidler & Shanley, 1993). Similarly, institutional research at Chabot College (a public 2-year college in California) indicates that first-year students who passed the seminar have significantly higher first-quarter GPAs and persist through the second quarter of college at a rate almost eight times higher than non-participants (cited in Barefoot, 1993a). Also, research conducted on four consecutive cohorts of first-year students at the Massachusetts College of Liberal Arts revealed that first-year seminar grade can predict students' overall first-year academic performance better than high school grades or college-entry SAT/ACT scores (in Barefoot et al., 1998), thus suggesting that the course can serve as an accurate diagnostic tool for identifying first-term students who may be academically at-risk and in need of academic assistance or psychosocial intervention. Moreover, the specific *grade* earned by students in its first-year seminar has been found to correlate significantly with student *retention*, above and beyond mere course participation and completion (Starke, 1993). Lastly, at Floyd College (a public community college in Georgia), institutional research indicates that a significant correlation exists between first-year seminar grade and subsequent GPA (Green, cited in Barefoot et al., 1998).

Such findings suggest that students' academic performance in the first-year seminar may be predictive of their academic success, in general, during their first year of college. If this is the case, then institutions could target intervention procedures that are tailored specifically for beginning students who perform poorly in the first-year seminar. In this fashion, the first-year seminar can function as a prognostic and diagnostic tool for early identification and interception of academic problems (and potential attrition resulting therefrom) during the first year of college. The first-year seminar could perform this diagnostic function in a particularly *proactive* manner if colleges were to front-load the course during the first half of the term, so that students' grades would be formally recorded and accessible to advisors and other student-support or intervention agents. This scheduling procedure is used at The Ohio State University, Wooster Campus, where the seminar is offered during the first five-weeks of the semester. Campus-specific research has demonstrated that student grades in the course are better predictors of student success at the college than high school rank or ACT score; and since these grades are known after the fifth week of the term, early identification and intervention is possible (Zimmerman, 2000).

For the typical full-semester seminar, instructors could issue *midterm grades or midterm progress reports* to students experiencing these problems, as well as to academic advisors or academic-support professionals (e.g., via the academic dean's office or the learning assistance center). First-term students receiving grades below a certain threshold or cutoff point in the seminar may then be contacted for consultation and possible intervention. To determine this cutoff point, research could be conducted on grade distributions in the first-year seminar to identify the grade below which a relationship begins to emerge between poor performance in the first-year seminar and first-year academic problems or student attrition. For instance, students at the Massachusetts College of Liberal Arts who earned a grade of C+ or lower in the seminar had a significantly higher rate of first-year attrition ( $p < .001$ ) than students who earned a grade of B- or higher in the course (Hyers & Joslin, 1998).

Use of midterm grades as an "early alert" or "early warning" system is nothing new to higher education. However, a perennial problem with successful implementation of this procedure is lack of compliance—faculty may have neither the time for, nor the interest in, calculating and reporting midterm grades for all their students. However, if the first-year seminar grade is a good proxy for first-year academic performance in general, then the midterm grade in this single



course may serve as an effective and efficient early-warning signal. Moreover, given that first-year seminar instructors often self-select into the program because of their interest in, and concern for promoting the success of first-year students, they should display a high rate of compliance or reliability with respect to submitting students' midterm grades in an accurate and timely manner.

Lastly, it should be underscored that use of the first-year seminar as an early warning-and-intervention device has huge implications for promoting retention because student decisions about whether to stay or withdraw from college have been found to correlate more strongly with their first-year grades than with their pre-enrollment characteristics (Fox, 1986; Pascarella & Chapman, 1983).

#### ◆ **Serving a vehicle for gathering assessment data on students at college entry**

One institutional benefit of the first-year seminar is its potential for serving as a mechanism through which the institution may gather comprehensive data on its freshman class at college entry (Cuseo, 1991). This is the necessary first step in any effective "student tracking" system designed to assess the institutional experiences of students from entry to exit (Palmer, 1989).

For example, diagnostic assessment of beginning college students' support-service needs is now possible with the development of instruments designed to identify students who are "at risk" for attrition, such as the (a) Noel/Levitz College Student Inventory (Striatal, 1988), (b) Behavioral and Attitudinal Predictors of Academic Success Scale (Walkie & Radiant, 1996), (c) Student Adaptation to College Questionnaire (Baker & Siryk, 1986), and (d) Anticipated Student Adaptation to College Questionnaire (Baker & Schultz, 1992). The prospects for college success of at-risk students identified by these assessment instruments could be greatly enhanced if these students experience proactively-delivered support services or early interventions that are specifically targeted to meet their individual needs. However, institutions interested in using these diagnostic instruments for student retention-promoting purposes must find the time and place to do so. The first-year seminar could serve this function, providing a relevant curricular structure and a comfortable classroom context within which to conduct comprehensive assessment of beginning students' needs during their critical first semester in college.

Furthermore, if data gathered on students at college entry are later compared with data gathered on the same cohort of students at college graduation, then pre- to post-college comparisons can be made, thus completing the cycle needed for longitudinal (entry-to-exit) assessment. Such a longitudinal research design is required to conduct meaningful *value-added* or *talent-development* assessment (Astin, 1991). Though often used interchangeably with *outcomes* assessment—which involves assessing student characteristics only at graduation, value-added assessment is more ambitious. It involves assessment of the same cohort of students at both entry and exit, with the intent of determining whether student differences that emerge between the start and completion of college can be attributed directly to the effect of the college experience itself—i.e., how much "value" the college experience has "added" to the student's development that, otherwise, would not have taken place.

Alexander Astin, a prominent proponent of value-added assessment (or "talent development" assessment, as he prefers to call it) offers the following argument for its implementation:

Learning and growth take place over *time* and assessment cannot hope to document that growth unless it also tries to reflect how students are changing over time. This has very

important implications for assessment: It means you can't learn very much from one-time administrations of achievement tests . . . . We have to make sure we're following the same students so that we have some idea who changed, how they changed, and why (quoted in Mentkowski, et al., 1991, pp. 1 & 6).

Whereas outcomes assessment is merely *descriptive*, i.e., simply describing what students are like at graduation, value-added assessment has the potential for providing information that is *causal*—suggesting that the college experience, or some element thereof, has produced or caused positive changes in student development that would not have otherwise taken place.

However, to gain this advantage for identifying causal relationships between college experiences and student outcomes, data collection must take place at two junctures, requiring administration of parallel assessments at both college entry and college graduation. Such an entry-and-exit assessment procedure is likely to be resisted by some members of the college community because of (a) *logistical* concerns (where can we find the time, the place, and the students needed to administer two large-scale assessments?) and (b) *methodological* concerns (if students are asked to volunteer their time for entry and exit assessments, would such a volunteer sample reflect the “true” population of students at the college, or would this self-selected sample of volunteers represent a biased sample of more motivated and committed students?).

A first-year seminar may be a viable vehicle for addressing both of these concerns. The course could conveniently provide a sufficient *sample size* of first-year students, as well as the *time* and *place* needed to conduct comprehensive college-entry assessment. Furthermore, if *all* new students were required to take the course, then volunteers would not have to be solicited and the confounding effects of sampling bias would be circumvented. Also, since the first-year seminar has a student-centered focus that often involves self-assessment (e.g., self-assessment inventories administered in class for the purpose of heightening student awareness of personal interests, values, and learning styles), it can provide a comfortable venue within which to conduct entry assessment—itself a form of self-assessment. Thus, any assessment conducted in the first-year seminar for the institutional purpose of gathering student-entry data will more likely be perceived as consistent with the course objectives and viewed as a natural extension of other self-assessment procedures used in the course.

The upshot of these arguments is that the first-year seminar has the potential to serve a valuable institutional purpose by providing a convenient curricular conduit through which the college can access a substantial sample of captive (and motivated) new students that is needed to collect college-entry data in a careful and comprehensive fashion. (Analogously, senior seminars could provide a viable and relevant context within which the exit component of value-added assessment could take place.)

#### ◆ **Promoting greater gains in student development from college entry to college completion**

While there are some campus-specific studies which indicate that student involvement in the first-year seminar increase student *persistence to graduation* (Barefoot, 1993a; Barefoot et al., 1998), there appears to be no reported research on whether course participation promotes more favorable student learning and development outcomes *at graduation*. At first glance, it may seem far-fetched to expect that participation in a first-semester course will have significant long-term effects on student outcomes measured four or more years later. However, given the

seminar's already-demonstrated capacity for increasing student utilization of campus resources, support services, and key educational agents outside the classroom, as well as its capacity to improve classroom-related behavior and out-of-class study habits (College of William and Mary, in Barefoot et al., 1998), it is reasonable to hypothesize that this increased quantity and quality of student involvement during the early stages of the college experience will continue, triggering *cumulative* gains in learning and development throughout the college experience that culminate in more favorable outcomes displayed by students at college *completion*. For instance, one institutional research study revealed that the percentage of students who participated in the first-year seminar during their initial term on campus who went on to use the college's learning resource and tutorial services as *sophomores and juniors* was double that of sophomores and juniors who did not participate in the first-year seminar (Wilkie & Kuckuck, 1989). It seems very reasonable to expect that such a substantial and ongoing difference in seminar participants' use of campus learning resources beyond the first semester is likely to result in larger cumulative gains in learning demonstrated at college completion.

Predicting and assessing such long-term effects of the first-year seminar is consistent with the "utilization-focused evaluation" model suggested by Patton (1978). According to this model, there are three major goals of outcome assessment: (a) *immediate*-outcome goals relating to initial program participation (e.g., academic success during the first semester), (b) *intermediate* outcome goals relating to program impact immediately following participation (e.g., retention to completion of the first year), and (c) *ultimate*-outcome goals relating to broader, long-term impact (e.g., enhanced student outcomes at college graduation). According to this assessment model, student development is cumulative or hierarchical, so any educational program which increases the accomplishment of immediate and intermediate outcome goals (such as the first-year seminar) also has the potential for achieving ultimate goals.

Historically, first-year-seminar assessment has focused almost exclusively on immediate or intermediate outcome goals and has repeatedly demonstrated the course's positive impact on these goals. A useful direction for future assessments of the first-year seminar might be to explore the course's potential for building on these shorter-term accomplishments to document its positive impact on broader, long-term outcomes manifested as college completion.

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