

# **FIRST YEAR INITIATIVE BENCHMARK STUDY**

## **General Announcement**

The First-Year Initiative (FYI) benchmarking study, was launched in fall 2001 to assess and benchmark the learning outcomes of first-year seminars. This message contains an overview of the study, announces a series of essays on study results, and briefly reports key findings.

### **FYI Overview**

With funding from The Pew Charitable Trusts and The Atlantic Philanthropies, the Policy Center on the First Year of College in partnership with Educational Benchmarking, Inc. developed The First-Year Initiative (FYI) benchmarking survey. Over 31,000 students from 62 institutions completed the survey in the last weeks of a first-year seminar. While the intent of FYI is to provide participating campuses with information to guide improvement at the local campus level, the project also created a large cross-institutional database on the learning outcomes from first-year seminars. Also, the study provided a rich opportunity for national research on the effects of first-year seminars across institutional types.

FYI investigated 14 factors – 10 learning outcomes, 2 assessments of the classroom experience, and 2 assessments of satisfaction with the college/university experience. The learning outcomes include: Academic skills development, out of class engagement, critical thinking, time/priorities management, faculty/student connections, student/student connections, knowledge of academic services, understanding campus policies, study skills, and wellness issues.

### **Reporting FYI Results**

In the coming months the results of the 2001 FYI study will be shared with the higher education community through conference presentations and peer-reviewed journal articles, but the importance of these findings calls for a more expeditious dissemination such as that provided by the FYE-L (first-year experience listserv) and the FYA -L (first-year assessment listserv). To speed the process, this message contains brief descriptions of key findings from the research; however, because research on complex phenomena produce complex findings, it is impossible to adequately relay the finer points in this single communication. So, over the next several weeks each of the key findings will be explained in greater detail in a short essay that will be posted to FYA -List, FYE -List, and archived on the Policy Center's Website.

Overview of key findings (Each of the following findings will be explored in greater depth in an essay that will be posted on this listserv in the coming weeks.)

Contact and credit hours: One, two, and three contact/credit hour courses were investigated. Each format produced significant learning outcomes. Overall, more contact hours produced greater learning outcomes than fewer contact hours. Seminar theme format: Seminars focused on transition to college issues and interdisciplinary-theme seminars produced similar learning outcomes. Discipline-based seminars were far less effective than transition-theme and interdisciplinary-theme seminars. Required/Elective: Elective courses produced greater learning outcomes, even when statistical controls were applied for student demographics and course characteristics.

### **First-Year Initiative (FYI) Overview**

*Note: This essay is the first in a series of essays describing the results of a national survey of first-year seminar students. The series is archived at:*  
<http://www.brevard.edu/fyc/FYI/Index.htm>

First-year seminars are a key feature of the first college year at over 70% of American institutions of higher education (USC National Resource Center research). While it is commonly reported that first-year seminars are among the most frequently assessed structures in American higher education, there are two serious deficiencies in the research literature on these programs. First, very few attempts at cross-institutional research have been reported – the kind of meta-analyses that could provide answers to important questions about the unique impact of various course structures. Second, it is not unusual to find assessment of grade point averages and retention, but far fewer studies have investigated broader learning outcomes of first-year seminars such as gains in skills and knowledge (writing, speaking, critical thinking, and campus specific information).

With grants from The Pew Charitable Trusts and The Atlantic Philanthropies, The Policy Center on the First Year of College\* (links and notes provided at the end of this essay are noted with an asterisk), in partnership with Educational Benchmarking, Inc.\*, developed a two-page benchmarking survey designed for in-class administration during the last two weeks of first-year seminars. A small field test of the survey instrument was conducted in Spring 2000 at 8 institutions. After instrument refinement, a large-scale pilot administration was conducted in Fall 2001 at 62 institutions\* and with over 30,000 student respondents. The pilot institutions roughly approximated the proportion of 4-year American colleges across the Carnegie Classification system.

In-depth telephone interviews with seminar coordinators/directors explored the structural characteristics of first-year seminars on each campus. These interviews captured information about the inter-institutional variations at the section-level of the course so that campuses using multiple section structures could be properly coded. The institutional profile template is available at: <http://www.brevard.edu/fyc/fyi/profile.htm> .

Survey responses were received in December, 2001. Analyses confirmed fourteen factors\* (constructs formed by a group of related questions – see factors and survey questions at [www.brevard.edu/fyc/fyi/2001surveyfactors.htm](http://www.brevard.edu/fyc/fyi/2001surveyfactors.htm) ). Each participating institution received individual analyses of their data and comparison to six peer institutions. Peer institution selection insured that comparisons were among institutions enrolling similar students and using similar first-year seminar formats. In other words, peer selection insured that comparisons were made, as nearly as possible, across equivalent institutional types, seminar formats, and student populations. Any differences in outcomes could reasonably be attributed, then, to differences in the quality/effectiveness of the seminar and used to confirm current practices or guide course improvements.

The FYI survey investigates fourteen aspects of first-year seminars. Ten factors are learning outcomes:

1. Course improved study strategies (Alpha\* = .91)
2. Course improved academic/cognitive skills (Alpha = .88)
3. Course improved critical thinking skills (Alpha = .91)
4. Course improved connections with faculty (Alpha = .77)
5. Course improved connections with peers/others (Alpha = .83)
6. Course increased out-of-class engagement (Alpha = .86)
7. Course improved knowledge of campus policies/procedures (Alpha = .82)
8. Course improved knowledge of campus services (Alpha = .82)
9. Course improved managing time/priorities (Alpha = .89)
10. Course improved knowledge of wellness/ spirituality issues (Alpha = .92)

Two factors assessed the course delivery and course effectiveness:

11. Course included engaging pedagogy (Alpha = .91)
12. Overall course effectiveness (Alpha = .89)

Two factors assessed the overall satisfaction with the institution and “student/institution fit”:

13. Overall satisfaction with the institution (Alpha = .77)
14. Sense of belonging/acceptance (Alpha = .89)

Results of the 2001 pilot administration led to minor changes in the FYI instrument. A small number of questions were dropped, a few were added, and the new instructions provide options for reporting the outcomes of a course or an “experience” such as would be the case for a group of courses linked as a learning community or some other first-year initiative which is not limited to “a course.” The second pilot administration is jointly supported participating campuses and by grant funding from The Atlantic Philanthropies and The Pew Charitable Trusts. The open enrollment period continues through October 15,

2002. Information about this year's FYI survey is available at [www.brevard.edu/fyc/fyi/index.htm](http://www.brevard.edu/fyc/fyi/index.htm) Randy Swing, August 28, 2002

## **The Impact of Engaging Pedagogy on First-Year Seminars**

*Note: This is the second in a series of essays describing the results of a national survey of first-year seminars. The series is archived at: <http://www.brevard.edu/fyc/fyi/essays/index.htm>*

The First-Year Initiative (FYI)\* Benchmarking survey assesses the learning outcomes from first-year seminars AND guides improvement. To do both, an instrument must accurately measure learning outcomes and pinpoint structures and conditions that contribute to good performance. The FYI national database, representing 62 institutions and over 30,000 students, provides data about seminar structures and classroom environments that support best practices in first-year seminars.

Perennial debates among those involved in first-year seminars often center on course structures including the amount of credit, who teaches, how the course is graded, whether to require the course, and other structural elements which are usually determined when seminars are first established. In future essays, FYI data will be used to evaluate each of these structural elements; however this essay is about an aspect of first-year seminars that cuts across all structural elements.

The 2001 FYI survey results show that learning outcomes and student satisfaction with first-year seminars are highly correlated with the way teachers conduct first-year seminars. We measured the "engaging pedagogy" construct with student ratings of the degree to which their seminar includes a variety of teaching methods; meaningful discussion and homework; challenging assignments; productive use of class time; and encouragement for students to speak in class and work together. We believe students can accurately respond to these survey items based on their experiences in the first-year seminar classroom.

Using a 7-point scale, the mean score for the Engaging Pedagogy Factor ranged from a low of 3.03 to a high of 5.79. (A mean score of 4.0 is the center point of the scale and 5.50 includes 3/4 of the scale, indicating high performance.) Participants in the 2001 FYI were arranged into five groups based on their mean scores on the Engaging Pedagogy Factor for the analysis presented in this essay.

Five levels of mean scores on the Engaging Pedagogy factor

- ✍ Level 1: mean scores of 5.50 or higher (High performing), 5 institutions
- ✍ Level 2: mean scores of 5.0 - 5.49, 20 institutions
- ✍ Level 3: mean scores of 4.50 - 4.99, 24 institutions
- ✍ Level 4: mean scores of 4.0 - 4.49, 11 institutions
- ✍ Level 5: mean scores below 4.0 (Low Performing), 3 institutions

Analysis of Variance (ANOVA) statistical testing confirm that learning outcomes differ across the five grouping levels of engaging pedagogy so that higher mean scores on the Engaging Pedagogy factor are significantly associated with higher mean scores on most of the other measures of learning outcomes and overall course effectiveness. The clearest examples of this strong association is found between Engaging Pedagogy and two other factors, Course Improved Critical Thinking,\* and Overall Course Effectiveness\* where a linear association is observed. The mean scores for both the Critical Thinking and Overall Course Effectiveness factors decline as the level of Engaging Pedagogy moves from Level 1 to Level 2, from Level 2 to Level 3, etc.

While not statically different at all five levels of Engaging Pedagogy, these data also reveal a clear pattern of association between levels of Engaging Pedagogy and four other learning outcomes:

1) Course Improved Study Strategies, 2) Course Improved Academic/Cognitive Skills, 3) Course Improved Connections with Faculty, and 4) Course Improved Managing Time/Priorities. Of these four factors, generally, Level 1 and 2 of Engaging Pedagogy were similar to each other, Levels 3-5 were similar to each other, and the two groupings were statically different so that Levels 3-5 outperformed Levels 1-2.

It is also important to know that engaging pedagogy was not associated with differences on the two learning outcomes, Course Improved Knowledge of Academic Services, and Course Improved Knowledge of Campus Policies/Procedures. If the core goal of your first-year seminar is to communicate campus policies and introduce students to campus services, these data suggest that it may not matter how the information is presented to students, or that no campus has perfected engaging ways to present such information. If your seminar intends to produce learning outcomes in critical thinking, writing, reading, and oral presentation skills; connections with faculty; or time management skills, then a critical firststep is to ensure that seminars are delivered with a high level of engaging pedagogy. The use of a variety of teaching methods, challenging assignments, meaningful homework, and productive classroom time are associated with greater learning outcomes and higher student ratings on the Overall Course Effectiveness Factor. The FYI Survey is a way to measure the level of engaging pedagogy across firstyear seminars and provides comparative benchmarks with peer institutions to guide improvement.

## How Many Weekly Contact Hours Is Enough?

*Note: This is the third in a series of essays describing the results of a national survey of first-year seminars. The series is archived at: <http://www.brevard.edu/fyc/fyi/essays/index.htm>*

One of the first decisions in building a new first-year seminar is the basic structural question about the number of contact hours to be devoted to the course. For most seminars, the number of weekly contact hours is roughly synonymous with the number of credit hours. The 62 pilot institutions reported that:

- 6% offered non-credit seminars
- 40% offered one credit hour seminars
- 24% offered two credit hour seminars
- 24% offered three credit hour seminars
- 6% offered seminars carrying more than three credit hours

These findings are consistent with data reported on the University of South Carolina's National Resource Center 2000 survey of first-year seminars (slight differences are probably due to the inclusion of two-year institutions in the NRC data) and show that the pilot group is representative of all first-year seminars.

National data about contact hours is available for the 62 institutions in the 2001 FYI pilot study. We chose to perform analyses based on contact hours rather than credit hours, since the "noncredit" courses did, in fact, meet for either 1, 2, or 3 hours per week. We believe that the core issue here is time on task, not amount of credit given. Data analyses did show very different patterns of learning outcomes and levels of course effectiveness across variations in contact hours\*

The current study was limited to 1, 2, and 3 contact hour courses because the 2001 FYI data contained few examples of courses with more than 3 contact hours.

### **One contact hour courses**

A smaller proportion of students rated 1-contact hour courses as highly effective\* on all but one factor (Knowledge of Campus Policies/Practices) in comparison with 2- and 3-hour courses. Other than increasing student knowledge of campus policies/practices, one contact hour courses did not equal the level of learning outcomes\* produced by seminars using more than one contact hour per week.

### **Two contact hour courses**

Two-contact hour courses performed well on most of the learning outcomes measured. On five of the ten learning outcomes, the proportion of students rating two-contact hour courses as highly effective was statistically equal to the proportion in 3-contact hour courses. No meaningful difference was found in 2- and 3-contact course learning outcomes for the following factors.

- ✍ Course improved study strategies
- ✍ Course increased connections with faculty
- ✍ Course increased connections with peers
- ✍ Course increased out-of-class engagement
- ✍ Course improved knowledge of wellness & spirituality issues

In addition, courses carrying 2-contact hours were rated as equally effective in comparison to 3- contact courses on the summary measure of “Overall Course Effectiveness.”

### **Three-contact hour courses**

Three contact hour courses were rated as highly effective by a larger proportion of students or tied with two-hour courses on 7 of the 10 learning outcomes and on both measures of course effectiveness. Particularly important to note is that 3-contact hour courses exceeded both 1- and 2-contact hour courses on the two factors measuring gains in academic skills (writing, speaking, and library skills) and critical thinking skills. The high performance of 3-contact hour courses is explained by the large proportion of students rating those courses as highly effective in using engaging pedagogies, as measured by the factor “The Course Included Engaging Pedagogy”<sup>\*</sup>.

## **Summary**

How many contact hours per week make the best first-year seminars? It depends on the goals of the course and the institutional context. If the course goal is to introduce students to campus policies and practices, then a 1 -contact hour course is as effective as courses that meet for more hours per week. If the course goals also include increased knowledge of campus services, improvement in time management and other study skills, increasing student/student and student/faculty connections, and increased out-of-class engagement, then at least 2 contact hours per week are more effective in producing these learning outcomes.

### **What type of seminar is best?**

*Note: This is the fourth in a series of essays describing the results of a national survey of first-year seminars. Printer-friendly versions of the series is available at [www.brevard.edu/fyc/fyi/essays/index.htm](http://www.brevard.edu/fyc/fyi/essays/index.htm) with new essays posted each week.*

Drawing from the work of Betsy Barefoot and the National Resource Center on The First Year Experience and Students in Transition, four types of first-year seminars were identified in the First-Year Initiative (FYI) study.

**College Transition Theme** seminars cover academic topics exploring orientation to college, life transitions, and academic skills. These follow the University 101 (University of South Carolina) model.

**Special Academic Theme** seminars focus on a selected theme other than college transition. These are often taught as interdisciplinary seminars where a small group of students and a model learner/teacher use a variety of methods to investigate an important theme. Themes may be consistent across sections or different for each section.

**Discipline-Based Theme** seminars are offered as an introduction to a major or academic department. They are usually based in individual academic departments.

**Remedial/Study Skills Theme** seminars are those narrowly focused on basic study skills. These exist on many campuses, but there were too few such seminars in the 2001 FYI study to draw any meaningful conclusions. Telephone interviews with seminar coordinators were used to determine the proper coding of seminar type for each campus. When campuses used more than one seminar type, we reviewed each section of the course to determine if at least 80% of the sections were of the same type. If less than 80% of sections were the same, we coded that institution as “mixed” and did not use those data in these analyses. Results for the 62 campuses in the 2001 FYI pilot study are shown below.

College transition theme (73%)  
Special Academic theme (14%)  
Discipline-Based theme (8%)  
Remedial/Study Skills (0%)  
Mixed (5%)

The FYI study investigated the percent of students ranking their seminar as highly effective\* on each of 10 learning outcomes\* and disaggregated by type of seminar (actual data can be found at <http://www.brevard.edu/fyc/fyi/chart1.htm>). Below is a narrative summary of these data.

### **Discipline-based theme seminars**

With only one exception, the discipline-based theme seminars produced the lowest ratings for effectiveness on learning outcomes in comparison to other theme formats. On the learning outcome, “Knowledge of Campus Policies/Procedures,” the discipline-based theme courses produced the highest rating, with over 1/3 of students ranking the course as highly effective, a result that was statistically equal to the courses using the transition theme format.

### **Special academic theme seminars**

Special academic theme seminars were rated by a larger proportion of students as highly effective on two learning outcomes (Course improved academic/cognitive skills, and Course improved critical thinking skills) and rated by a nearly equal

proportion of students as highly effective on three other learning outcomes (Course improved connections with faculty, Course improved connections with peers/others, and Course improved managing time/priorities).

### **College transition theme seminars**

College transition theme seminars performed best overall across the ten learning outcomes investigated by FYI. These courses were rated by a larger proportion of students as highly effective on four learning outcomes (Course improved study strategies, Course improved out-of-class engagement, Course improved knowledge of academic services, and Course improved knowledge of wellness issues). In addition nearly equal proportion of students rated college transition theme seminars as highly effective on four other learning outcomes (Course improved connections with faculty, Course improved connections with peers/others, Course improved knowledge of academic services, and Course improved managing time/priorities).

The factor measuring “Engaging Pedagogy” helps explain the results for these three seminar types. Special academic theme seminars were rated by the largest proportion (36.5%) of students as highly effective in using engaging pedagogies. A slightly smaller proportion of students (30.5%) rated college transition theme seminars as highly effective on engaging pedagogies. A large drop in the proportion of students (18.3%) rated discipline based seminars as highly effective, revealing considerable differences in how the discipline based seminars may have been presented to students.

### **Summary**

The FYI data clearly support that the discipline-specific seminars were less effective than college transition theme or special academic theme seminars in producing learning outcomes. The low rating for the factor, “Engaging Pedagogy, suggests that discipline-specific courses might be improved with greater attention to the way these courses are delivered to students. A comparison would be more fair if these courses had used the same level of engaging pedagogy as the other formats. The difference between college transition theme and special academic theme seminars is more subtle. Both are highly effective formats and each excels in some unique dimensions. College transition theme courses are best at learning outcomes associated with college success skills and behaviors. Special academic theme courses are best at learning outcomes including academic skills and critical thinking skills. The differences probably reflect the divergent goals of the two courses as they relate to institutional mission and context.

*Randy Swing, Policy Center on the First Year of College  
September 26, 2002*

### **Notes:**

\* Highly effective is defined as factors with mean scores of 5.50 or higher. On a 7-point scale, scores of 5.50 or higher are in the top ¼ of the scale.

\* See the FYI learning factors at: <http://www.brevard.edu/fyc/fyi/surveyfactors.pdf>