Demonstrating the Impact of First-Year Seminars on Student Outcomes

2012 ASHE Conference
Las Vegas, NV

Jennifer Keup
(keupj@mailbox.sc.edu)
Background

“The freshman seminar is a course intended to enhance the academic and/or social integration of first-year students by introducing them:

• to a variety of specific topics, which vary by seminar type [6 types],

• to essential skills for college success, and

• to selected processes, the most common of which is the creation of a peer support group.”

(Barefoot, 1992)
Evidence of FYS can be found as early as 1880s but experienced a “renaissance” in 1970s.

National data indicate pervasive use (Barefoot, Griffin, & Koch, 2012; Padgett & Keup, 2011)
- 96% of institutions offer a FYS
- Half offer a FYS to 90% of more first-year students
- Growing use among 2-year colleges

Evolution in type, structural characteristics, & content
FYS as High-Impact Practice

First-Year Seminars and Experiences

“Many schools now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students’ intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members’ own research.”
Previous Research: Findings

• Positive impact on retention to second year, persistence to graduate, and academic performance

• Positive effect on behavioral outcomes
  – Involvement in campus activities
  – Interaction with faculty and peers
  – Student engagement

• FYS faculty development also linked to improved teaching performance
Previous Research: Findings

• Positive impact on students in their first year, persistence to second year, and academic performance.

• Positive effect on behavioral outcomes:
  – Involvement in campus activities
  – Interaction with faculty and peers
  – Student engagement

• FYS faculty development also linked to improved teaching performance.

“FYS participation has statistically significant and substantial, positive effects on a student’s successful transition to college and the likelihood of persistence into the second year as well as on academic performance while in college” (Pascarella & Terenzini, 2005, p. 403)
Previous Research: Limitations

• Reliance upon single-institution studies
• Inability to capture the wide range of seminar characteristics
  – Seminar type
  – Seminar structure
  – Students served
  – Instructional features
Research Questions

• Which characteristics of first-year seminars (i.e., structural elements, institutional characteristics, course objectives, and seminar content) have an impact on students’ first-year grades?

• Which characteristics of first-year seminars (i.e., structural elements, institutional characteristics, course objectives, and seminar content) have an impact on students’ persistence to the second year?
Method

• Data source
  – Institutional respondents to the 2009 National Survey of First-Year Seminars (n = 890)
  – Respondents to a Spencer Foundation funded follow-up survey to collect outcomes data (n = 185)

• Sample representativeness
  – Not nationally representative
  – Representative of institutions that offer first-year seminars
Method

• Dependent variables
  – Average cumulative first-year GPA for FYS
  – Average sophomore return rate for FYS students

• Independent variables
  – Institutional and seminar controls
  – Structural characteristics of FYS
  – Instructional characteristics of FYS
  – Course objectives
  – Course content
Method

• Descriptive statistics
• A series of OLS regression analyses
  – Five regression analyses for each of the two outcomes
    • Each included institution controls and one of the other blocks of independent variables
  – Final models (one for each outcome) included all of the variables that proved to be significant in previous regression analyses
### Results: Separate Models

<table>
<thead>
<tr>
<th></th>
<th>Beta for GPA</th>
<th>Beta for Persist</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College policies and procedures</td>
<td>-.208*</td>
<td></td>
</tr>
<tr>
<td>Health and wellness</td>
<td>.201*</td>
<td></td>
</tr>
<tr>
<td>Critical thinking</td>
<td></td>
<td>.199*</td>
</tr>
<tr>
<td><strong>Instructional Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminar instructor: Adjunct faculty</td>
<td>-.315***</td>
<td></td>
</tr>
<tr>
<td>Seminar includes online components</td>
<td>-.207*</td>
<td></td>
</tr>
</tbody>
</table>

***p<.001; **p<.01; *p<.05
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Beta for GPA</th>
<th>Beta for Persist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve sophomore return rates</td>
<td>-.272***</td>
<td></td>
</tr>
<tr>
<td>Develop writing skills</td>
<td>.246*</td>
<td></td>
</tr>
<tr>
<td>Self-exploration/personal development</td>
<td>.180*</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Structural Characteristics</th>
<th>Beta for GPA</th>
<th>Beta for Persist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary FYS type: Academic Variable Content</td>
<td>.387*</td>
<td>.192*</td>
</tr>
<tr>
<td>Primary FYS type: Basic Study Skills</td>
<td>-.355*</td>
<td>-.260**</td>
</tr>
<tr>
<td>FYS class size</td>
<td>-.253***</td>
<td></td>
</tr>
<tr>
<td>Credits seminar carries</td>
<td>.343***</td>
<td></td>
</tr>
<tr>
<td>Percent of students taking a first-year seminar</td>
<td></td>
<td>.191*</td>
</tr>
<tr>
<td>Administrative unit for FYS: Student Affairs</td>
<td>.238**</td>
<td></td>
</tr>
<tr>
<td>Seminar has been assessed</td>
<td>-.221*</td>
<td></td>
</tr>
</tbody>
</table>

***p<.001; **p<.01; *p<.05
Results: Combined Model
<table>
<thead>
<tr>
<th>Structural Characteristics</th>
<th>Beta for GPA</th>
<th>Beta for Persist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary FYS type: Academic Variable Content</td>
<td>.388***</td>
<td></td>
</tr>
<tr>
<td>Primary FYS type: Basic Study Skills</td>
<td>-.381***</td>
<td>-.294***</td>
</tr>
<tr>
<td>Percent of students taking a first-year seminar</td>
<td>.256**</td>
<td>.256**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instructional Characteristics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar instructor: Adjunct faculty</td>
<td>-.331***</td>
<td></td>
</tr>
<tr>
<td>Seminar includes online components</td>
<td>-.195*</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Objectives</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop writing skills</td>
<td></td>
<td>.267**</td>
</tr>
<tr>
<td>Personal development/exploration</td>
<td></td>
<td>.202*</td>
</tr>
<tr>
<td>Improve sophomore return rates</td>
<td>-.187*</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Content</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>College policies and procedures</td>
<td>-.255**</td>
<td></td>
</tr>
<tr>
<td>Health and wellness</td>
<td>.248**</td>
<td></td>
</tr>
<tr>
<td>Critical thinking</td>
<td>.231*</td>
<td></td>
</tr>
</tbody>
</table>

*p<.001; **p<.01; *p<.05
Discussion & Implications

- Seminar characteristics do matter to outcomes
  - Greater impact and wider range of effect on GPA than persistence
  - Little overlap in characteristics that predict outcomes
- Effect of FYS structural characteristics on outcome is mediated by other characteristics
- Characteristics that are aligned with core academic activities of the institution have a greater affect on outcomes
Discussion & Implications

• Bring attention to the need to include FYS characteristics in the study of this intervention
• Findings can help inform the development and refinement of FYS, especially in resource-sensitive times
  – Provide empirical evidence for FYS decisions
• Institutional data as the nexus between student analyses and policy
Future Research

• Look at a wider range of outcomes
• Examine high-impact practices associated with FYS
• Methodologically expand to include decision-tree analysis
2009 National Survey of First-Year Seminars

• Administration: Oct. 30 – Dec. 18, 2010
• Invitation sent to 3,225 institutions in 3 waves:
  – Chief Academic Officer
  – Chief Executive Officer
  – Chief Student Affairs Officer
• Incentive program
• 1,028 usable responses
  – 32% response rate
  – 890 with FYS
2010 Follow-Up Survey

• Funded by a grant from the Spencer Foundation
• Primary purpose was to gather information on student outcomes
  – Students in FYS in 2009-2010 academic year
  – General population of first-year students
• Survey sent to 890 respondents with FYS from the 2009 survey
• Incentive program
• 185 usable responses