The Relationship between Student Engagement and Selected Desirable Outcomes in the First Year of College

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Presentation Outline

1. Rationale
2. Research Questions
3. Methodology
4. Conceptual and measurement models
5. Results
6. Limitations
7. Conclusions and implications for research

The means to assess student learning still escapes higher education leaders.

The national report card for higher education.

All learning and development requires an investment of time and effort by the student.

Measuring the quality of college student experiences.

Calvin & Hobbes

Calvin & Hobbes

Calvin & Hobbes

Calvin & Hobbes
Principles for Good Practice in Undergraduate Education
(Chickering & Gamson, 1987)

- Student-faculty contact
- Active learning
- Prompt feedback
- Time on task
- High expectations
- Respect for diverse learning styles
- Cooperation among students

Student engagement is a domain of constructs that measure both the time and energy students devote to educationally purposeful activities, and how students perceive different facets of the institutional environment that facilitate and support their learning.


Processes are what faculty members, administrative personnel, students and others do in the conduct of their collegiate activities.

Process indicators are those that are measurable and intended to boost student learning outcomes.

Research questions
1. Does student engagement predict first-year student success as represented by the three domains of desired college outcomes?
2. Do student background characteristics (e.g., sex, race, first-generation status) have conditional effects?

Methodology
1. Data sources: CSEQ and Student records
2. Participants: First year students enrolled at IUB 2001 & 2002 (N=1,607)
3. Analysis: SEM using EQS (5.7b)

Conceptual and Measurement Models
Three outcomes

1. Cumulative GPA, end of first-year
2. Self-reported gains in intellectual skill development
3. Self-reported gains in general education learning

Conceptual model

Based on Pascarella’s (1985) General Causal Model of College Impact

Gains in General Education

Alpha reliability .81

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<td>Gaining a broad general education about different fields of knowledge</td>
<td>.48</td>
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<tr>
<td>Broadening your acquaintance with and enjoyment of literature</td>
<td>.74</td>
</tr>
<tr>
<td>Seeing the importance of history for understanding the present as well as the past</td>
<td>.72</td>
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<tr>
<td>Gaining knowledge about other parts of the world and other people (Asia, Africa, South America, etc.)</td>
<td>.69</td>
</tr>
<tr>
<td>Becoming aware of different philosophies, cultures, and ways of life</td>
<td>.64</td>
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Gains in Intellectual Skills

Alpha reliability .84

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<td>Writing clearly and effectively</td>
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<tr>
<td>Presenting ideas and information effectively when speaking to others</td>
<td>.70</td>
</tr>
<tr>
<td>Using computers and other information technologies</td>
<td>.53</td>
</tr>
<tr>
<td>Thinking analytically and logically</td>
<td>.76</td>
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<tr>
<td>Putting ideas together, seeing relationships, similarities, and differences between ideas</td>
<td>.76</td>
</tr>
<tr>
<td>Learning on your own, pursuing ideas, and finding information you need</td>
<td>.67</td>
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Agents of Socialization

- Student-Faculty Interaction
- Diversity Interaction
- Conversation Topics

Academic Engagement

- Writing Experiences
- Amount of Reading and Writing
- Computing and Information Technology
- Time Studying/Academic Preparation
- Use of the Library
- Attending the Tutoring Center
Integration

- Tried to see how different facts and ideas fit together
- Applied material learned in a class to other areas (e.g., job)
- Used experience from other areas of your life in courses
- Tried to explain material from a course to someone else
- Worked on assignment where you had to integrate ideas from various sources

Plus others…

Conceptual model

Based on Pascarella’s (1985) General Causal Model of College Impact

Perceptions of the Campus Environment

Emphasis on…

- Academic, Scholarly, Intellectual Qualities
- Aesthetic, Expressive, Creative Qualities
- Critical, Evaluative, Analytical Qualities
- Appreciation for Human Diversity
- Information Literacy Skills

Results

GPA model

GPA model
Total effects summary

<table>
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<tr>
<th>Background Characteristics</th>
<th>GPA</th>
<th>Intellectual Skills</th>
<th>General Education</th>
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<tbody>
<tr>
<td>SAT total score</td>
<td>M</td>
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<tr>
<td>High school class rank</td>
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<td></td>
<td></td>
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<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Graduate school aspiration</td>
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<td></td>
<td></td>
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<tr>
<td>Financial status</td>
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Limitations

1. Single institution data
2. Self-reports and “halo error”
3. Temporal ordering of measures
4. End of first-year too soon to observe growth

Conclusions

1. Different forms of engagement are precursors to different outcomes.
2. Different forms of engagement interact to contribute to desired outcomes
3. High expectations coupled with adequate support are requisite conditions for learning and development in the first college year
4. Grades do not necessarily represent how much students believe they have learned

Implications for research

1. We must examine and discuss engagement with more specificity
2. We must further explore the efficacy of integrative activities to learning.
3. More studies are needed using multi-equation approaches to examine the temporal relationships among precollege characteristics, engagement, and desired college outcomes
Questions and Discussion