First-year College Students’ Expected and Actual Engagement

Lanlan Mu
James S. Cole
Indiana University Bloomington
Overview

• Brief review of background and literature
• Theory of Planned Behavior
• Data source and analytic approach
• Conceptual model
• Results
• Discussion
• Expectations of entering first-year college students often exceed what they actually do in college (Kuh, 2005; Redish, Saul, & Steinberg, 1998; Schilling & Schilling, 1999)
  – Is the lack of correspondence due to unrealistic expectations or a failing of the institution to facilitate student expectations?
  – Research provides evidence for both positions. However, as institutions we often focus on what “we” can do better to help students be successful.
Introduction

• Do expectations matter?
• “Expectations affect students’ motivation, engagement, and investment of effort in learning”
  (Konings, Brand-Gruwel, van Merrienboer, & Broers, 2008, p 536)

• Optimistic expectations often lead to higher accomplishment (Armor & Taylor, 1998; Bandura, 1982; Schilling & Schiling, 2005).
Ajzen’s Theory of Planned Behaviors

- Attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors.
- This study focuses on the expectation (intention) and subjective norm as predictive of engagement.
Our Study is to answer…

• What is the relationship of entering college student’s expected and actual engagement

• Under what circumstances do students more likely to fulfill their expectations of engagement in colleges and universities?
Data Sources

Beginning College Survey of Student Engagement (2014)

National Survey of Student Engagement (2015)
Beginning Survey of College Engagement (BCSSE)

Purpose of BCSSE is to measure entering first-year students’ pre-college academic and co-curricular experiences, as well as their expectations and attitudes for participating in educationally purposeful activities during the first college year.
National Survey of Student Engagement

NSSE annually collects information at hundreds of four-year colleges and universities about first-year and senior students' participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college.
Engagement Indicators

**Collaborative Learning**
How often [do you expect to do/have you done] the following: (two example items)
  – ask another student to help you understand course material
  – explain course material to one or more students

**Student-Faculty Interaction**
How often [do you expect to do/have you done] the following: (two example items)
  – talk about career plans with a faculty member
  – work with a faculty member on activities other than coursework
Engagement Indicators

Discussions with Diverse Others

How often [do you expect to do/have you done] the following: (two example items)

– people of a race or ethnicity other than your own
– people from an economic background other than your own
Perceived Campus Support

*How much does your institution emphasize the following:* (two example items)

- **Providing support to help students succeed academically**
- **Using learning support services (tutoring services, writing center, etc.) what they gain from attending college**
Sample

• Select:
  – U.S. undergraduates only
  – Who participated both BCSSE14 and NSSE15

• Final sample:
  – 9,414 students from 70 U.S. colleges and universities
Distribution of Students by Background Characteristics

- American Indian or Alaska Native: 0.4%
- Asian: 6.3%
- Black or African American: 7.4%
- Hispanic or Latino: 9.0%
- Native Hawaiian or Other Pacific Islander: 0.2%
- White: 68.1%
- Two or more races: 8.6%
- Female: 70.3%
- Male: 29.7%
- Not-first-gen: 60.7%
- First-gen: 39.3%
Sample (cont.)

Distribution of Students by Basic Carnegie Classification

- Bachelor Colleges: 12.7%
- Master University: 45.7%
- Research University: 41.6%
Findings from our data:

Collaborative Learning

- Work with other students on course material: 2.8
- Prepare for exams by discussion: 2.8
- Explain course material to others: 2.7
- Ask other students for course material: 2.7

End of First Year vs. Entering College Students
Findings from our data:

**Student-faculty Interaction**

- Discuss course topic outside of class
- Discuss your academic performance
- Work with a faculty member other...
- Talk about career plans with faculty

End of First Year

Enter College Students

1 1.5 2 2.5 3 3.5 4
Entering College Students’ Expectation

Findings from our data:

Disscusion with Diverse Others

- Different political views
- Different religious beliefs
- Different economic background
- Different race or ethnicity

End of First Year vs. Entering College Students
Analysis at individual level

- Use the mean of one’s responses as expectation level;
- Calculate one’s (expectation - mean\textsubscript{expectation})\(^2\)
- Group students by the two dimensions separately
Analysis Techniques (2)

Structural Equation Model

– Use latent variables to represent abstract concepts
– Latent variable is measured by two or more observed measures;

Race
Gender
First-gen College Student

Expected Engagement

Perceived Supportive Campus Environment

Carnegie Classification

Actual Engagement
## Correlations of Expected and Actual Engagement by Items

<table>
<thead>
<tr>
<th>Collaborative Learning</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask another student to help you understand course material</td>
<td>0.29</td>
</tr>
<tr>
<td>Explain course material to one or more students</td>
<td>0.28</td>
</tr>
<tr>
<td>Prepare for exams by discussing …with other students</td>
<td>0.27</td>
</tr>
<tr>
<td>Work with other students on course projects or assignments</td>
<td>0.22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student-faculty Interaction</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talk about career plans with a faculty member</td>
<td>0.24</td>
</tr>
<tr>
<td>Work with a faculty member on .. other than coursework</td>
<td>0.26</td>
</tr>
<tr>
<td>Discuss your academic performance with a faculty member</td>
<td>0.26</td>
</tr>
<tr>
<td>Discuss course topics.. with a faculty member outside of class</td>
<td>0.27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discussion with Diverse Others</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>People of a race or ethnicity other than your own</td>
<td>0.31</td>
</tr>
<tr>
<td>People from an economic background other than your own</td>
<td>0.28</td>
</tr>
<tr>
<td>People with religious beliefs other than your own</td>
<td>0.32</td>
</tr>
<tr>
<td>People with political views other than your own</td>
<td>0.31</td>
</tr>
</tbody>
</table>
## Correlation between Expected and Actual Engagement by Average and Variance of Expectation Separately

<table>
<thead>
<tr>
<th>Average Expectation</th>
<th>Average Correlation</th>
<th>Variance of Expectation</th>
<th>Average Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low</td>
<td>0.17</td>
<td>Least varied</td>
<td>0.31</td>
</tr>
<tr>
<td>Low</td>
<td>0.18</td>
<td>A bit varied</td>
<td>0.27</td>
</tr>
<tr>
<td>Moderate</td>
<td>0.17</td>
<td>Somewhat varied</td>
<td>0.24</td>
</tr>
<tr>
<td>High</td>
<td>0.14</td>
<td>Highly varied</td>
<td>0.24</td>
</tr>
</tbody>
</table>
### Average Correlations of Expected and Actual Engagement by the Mean and Variance of Expectation

<table>
<thead>
<tr>
<th></th>
<th>Very Low Expectation</th>
<th>Moderate Expectation</th>
<th>Low Expectation</th>
<th>High Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Variance of Expectation</td>
<td>Average Correlation</td>
<td>Variance of Expectation</td>
<td>Average Correlation</td>
</tr>
<tr>
<td></td>
<td>Least varied</td>
<td>0.11</td>
<td>Least varied</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>A bit varied</td>
<td>0.15</td>
<td>A bit varied</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>Somewhat varied</td>
<td>0.21</td>
<td>Somewhat varied</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>Highly varied</td>
<td>0.22</td>
<td>Highly varied</td>
<td>0.17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Least varied</td>
<td>0.08</td>
<td>Least varied</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>A bit varied</td>
<td>0.13</td>
<td>A bit varied</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>Somewhat varied</td>
<td>0.15</td>
<td>Somewhat varied</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>Highly varied</td>
<td>0.21</td>
<td>Highly varied</td>
<td>0.18</td>
</tr>
</tbody>
</table>
Results of Student-faculty Interaction

- Race
- Gender
- First-gen College Student

Carnegie Classification

Expected Student-faculty Interaction

Perceived Supportive Campus Environment

Actual SFI

Significant!
Results of Collaborative Learning

- Race
- Gender
- First-gen College Student

Carnegie Classification

Expected Collaborative Learning

Perceived Supportive Campus Environment

Actual Collaborative learning
Results of Discussion with Diverse Others

Expected Discussion with Diverse Others

Race
Gender
First-gen College Student

Perceived Supportive Campus Environment

Carnegie Classification

Actual Discussion with Diverse Others

Significant!
Summary

- Carnegie classification does not have statistically significant moderation effects on student-faculty interaction, collaborative learning, and discussion with others.

- Perceived supportive environment, on the other hand, was a positive moderator of expected and actual engagement for student-faculty interaction and discussions with diverse others. Provides evidence that environment influences behaviors and demonstrates the critical role of campus environment on students’ engagement. The supportive environment encourages students to be more engaged and further facilitates the positive influence of students’ academic expectations.

- Overall, students’ expected and actual engagement has a positive and strong correlation. This is the case for all the three engagement aspects we examined: student-faculty interaction, collaborative learning, and discussion with diverse others.
Questions & Discussion
Contact Information

Lanlan Mu  
lanmu@Indiana.edu

Jim Cole  
colejs@Indiana.edu

Center for Postsecondary Research  
Indiana University School of Education  
1900 East Tenth Street, Suite 419  
Bloomington, IN 47406-7512

Phone: 812-856-5824  
Fax: 812-856-5150  
Email: nsse@indiana.edu  
Web: nsse.iub.edu