Creating and Validating an Entering Student Survey

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Overview

• Understanding the Purpose of Entering Student Surveys
• Selecting an Entering Student Survey
• Designing an Entering Student Survey
• Validating a Local Instrument
• Using Results
• Deploying Results
Purposes of Entering Student Surveys

• Assess changes in student populations over time
• Identity risk factors
• Determine student characteristics that predict student success and persistence
• Provide institution-specific benchmarks for evaluating efforts to improve academic performance, persistence and degree attainment
Student Information

- Needs
- Educational Goals
- Concerns
- Expectations
- Commitments
- Past behaviors
- Reasons for selecting institution
- Adjustment
- Beliefs/Attitudes
Local or National Survey?

• National
  – Comparison data
  – Extensive research and validity testing
  – Time savings in terms of development

• Local
  – Can be more sensitive to institutional and program goals
  – More acceptable to institutional and program planners
  – Opportunities for stakeholder involvement
Some National Instruments to Consider

• ACT-Compass

• CIRP Freshman Survey

• Beginning College Survey of Student Engagement (BCSSE)

• Making Achievement Possible-Works (MAP-Works)
Why We Selected Local

- Local priorities
- Important constructs
- Up-front costs
- Compatibility with university IT/Early warning
Developing the Instrument

- Consulted published research literature on factors that predict student success and learning
- Met with key stakeholders in Enrollment Services, Student Affairs, University College, Faculty Members, New Student Orientation Services, etc.
- Examined IUPUI’s strategic planning documents and institutional priorities
Published Literature

- Commitment (Mowday, Steers, & Porter, 1979)
- Hope (Snyder, 2002)
- Sense of Belonging (Lee & Robbins, 1995)
Key Stakeholders

New Student orientation
- Assessment of program

Student Affairs
- Predictive analytics

Enrollment Services
- Reasons for attending IUPUI
Institutional Priorities/Important Considerations

Needed an instrument aligned with needs of:

- Commuting students
- Transfer students
- Returning adults
Instrument Content Domains

- Sense of Belonging
- Academic Hope
- Academic Self-Efficacy
- Behaviors in High School or Previous College
- Self-Awareness
- Self-Efficiency/Perseverance
- Expected Time Commitments/Campus Engagement/RISE Activities
- Goal Setting
- Commitment to IUPUI
- College Expectations
- Reasons for Choosing IUPUI
Administration

• Currently paper-based and administered during New Student Orientation sessions to ensure high response rate (about 75%)
• Trained orientation team leaders in administration (emphasis on purpose and importance)
• Pilot administered during New Student Orientation Sessions (representative sample of first time beginners and transfers students)
• Pilot administered to small group of returning adults
“Validating” the Instrument

Face
- Student focus groups
- Shared drafts with key stakeholders iteratively

Construct
- Selected already validated scales such as Academic Hope and Sense of Belonging
- Alpha Reliability Coefficients (.85 -.95)

Content
- Designed to cover all relevant domains of interest to key stakeholders
- Included domains related to early predictors of student success.

Predictive
- Conducted analyses to examine what items and constructs predicted student success
- Student success defined as first year/semester cumulative GPAs and % GPAs below 2.00
Student Focus Groups

• Groups of students attending orientation
• Each group 1 section
• Entering first-year students and transfers
Student Focus Group Results

Students unsure about Sense of Belonging items

- “Everyone is nice now...”

Reduce response set

- Do students know difference between “somewhat important” and “moderately important”?  

General education

- Don’t understand it as we do
## Predictors of Success (Fall-Spring Retention)

**New Beginners**
- Number of hours expected to work off-campus for pay
- Number of hours expected to commute to campus
- Number of hours expected to take care of household responsibilities
- Size of IUPUI (reasons why selected)
- Come to class late (past behavior)
- Academic ability (confidence)
- Ability to seek out appropriate academic help (confidence)

**Covariates**: HS GPA, SAT score, Pell Grant

**New External Transfers**
- Sense of Belonging
- Organizational Commitment
- Transfer Intention
- Number of hours expected to work off-campus for pay
- Number of hours expected to take care of household responsibilities

**Covariate**: Transfer In GPA
Predictors of Success
(Fall GPA)

New Beginners

• + Academic Hope
• + Goal Commitment
• - Number of hours expected to work off-campus for pay
• - Number of hours expected to commute to campus
• - Number of hours expected to provide care for dependents
• - Number of hours expected to take care of household responsibilities
• + Drive to succeed (confidence)
• + Academic ability (confidence)
• + Study Skills (confidence)
• + Ability to seek out appropriate academic help (confidence)
• + Come to class with all required readings completed (past behavior)
• - Come to class late (past behavior)

New External Transfers

• - Number of hours expected to work off-campus for pay
• - Number of hours expected to commute to campus
• + Drive to succeed (confidence)
• + Academic ability (confidence)
• + Study Skills (confidence)
• - Wait until last moment to get your assignments done (past behavior)
• + Comprehend reading assignment (past behavior)
• + Revise your papers to improve writing (past behavior)

Covariates HS GPA, SAT score, Pell Grant

Covariate: Transfer In GPA
Academic Hope Items

1. If I should find myself in a jam, I could think of many ways to get out of it
2. At the present time, I am energetically pursuing my academic goals
3. There are lots of ways around any school-related problems that I may face
4. Right now I see myself as being pretty successful
5. I can think of many ways to reach my current academic goals
6. I see myself meeting the goals I have set for myself

Alpha Reliability Coefficient = .88
Incoming levels of Academic Hope significantly predicted fall academic performance, even when taking HS GPA, SAT Score, and First-Generation status into account (based on hierarchal logistic regression results, p<.001)
Reasons Why Choose IUPUI

**Significant Mean Differences**

<table>
<thead>
<tr>
<th>Reason</th>
<th>New Transfers</th>
<th>Beginners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>3.66</td>
<td>3.80</td>
</tr>
<tr>
<td>Size of IUPUI</td>
<td>2.71</td>
<td>2.93</td>
</tr>
<tr>
<td>Graduates Get Good Jobs</td>
<td>3.96</td>
<td>3.83</td>
</tr>
<tr>
<td>Wanted to Live Near Home</td>
<td>3.11</td>
<td>2.74</td>
</tr>
<tr>
<td>Ability to Live at Home While Attending</td>
<td>3.04</td>
<td>2.57</td>
</tr>
<tr>
<td>Social Opportunities in City of INDY</td>
<td>3.22</td>
<td>3.38</td>
</tr>
</tbody>
</table>

Mean responses based on a 5-point scale where 1 = Not Important, 2 = Somewhat Important, 3 = Moderately Important, 4 = Very Important, 5 = Extremely Important.
Transfer students are significantly less likely to expect to change their majors compared to Beginners (based on independent samples t-test p< .05)
Expectations and Reality?

Expected Chance of Making a B Average by Actual Fall GPA

<table>
<thead>
<tr>
<th></th>
<th>Transfers</th>
<th>Beginners</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Chance</td>
<td>3.38</td>
<td>3.22</td>
</tr>
<tr>
<td>Very Little Chance</td>
<td>3.19</td>
<td>3.14</td>
</tr>
<tr>
<td>Some Chance</td>
<td>2.60</td>
<td>2.81</td>
</tr>
<tr>
<td>Very Good Chance</td>
<td>2.66</td>
<td>2.88</td>
</tr>
</tbody>
</table>
Student Expectations

First-Time Beginners’ and External Transfers’ College Expectations and Planned Behaviors

<table>
<thead>
<tr>
<th></th>
<th>No Chance</th>
<th>Very Little Chance</th>
<th>Some Chance</th>
<th>Very Good Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participate in Campus Events Beginners</td>
<td>8%</td>
<td>42%</td>
<td>48%</td>
<td></td>
</tr>
<tr>
<td>Participate in Campus Events Transfers</td>
<td>20%</td>
<td>55%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Participate in Student Clubs/Groups Beginners</td>
<td>10%</td>
<td>43%</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>Participate in Student Clubs/Groups Transfers</td>
<td>6%</td>
<td>20%</td>
<td>51%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Transfer students are significantly less likely to expect to participate in campus events and join student organizations compared to Beginners (based on independent samples t-test p< .05)
Student Expectations: Get Tutoring Or Mentor Help

First-Time Beginners’ College Expectations and Planned Behaviors

<table>
<thead>
<tr>
<th></th>
<th>No Chance</th>
<th>Very Little Chance</th>
<th>Some Chance</th>
<th>Very Good Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEGINNERS</td>
<td>15%</td>
<td>47%</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>NEW TRANSFERS</td>
<td>21%</td>
<td>47%</td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

Transfer students are significantly less likely to expect to get tutoring or peer mentor help in specific courses compared to Beginners (based on independent samples t-test p< .05)
Transfer students are significantly less likely to expect to participate in service learning compared to Beginners (based on independent samples t-test p< .05)
Transfer students are significantly less likely to expect to participate in research projects with a professor compared to beginners (based on independent samples t-test $p < .05$).
Transfer students are significantly less likely to expect to participate study abroad or international travel related to school compared to Beginners (based on independent samples t-test p< .05)
Commitment to IUPUI

New Beginners’ and Transfers’ Entering Student Survey Responses

<table>
<thead>
<tr>
<th></th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginners</td>
<td>24%</td>
<td>43%</td>
</tr>
<tr>
<td>Transfers</td>
<td>22%</td>
<td>51%</td>
</tr>
</tbody>
</table>

Transfer students are significantly more likely to report that it is important to graduate from IUPUI compared to Beginners (based on independent samples t-test p< .05)
Commitment to IUPUI

New Beginners’ and Transfers’ Entering Student Survey Responses

<table>
<thead>
<tr>
<th></th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am extremely glad that I chose IUPUI over other colleges (BEGINNERS)</td>
<td>27%</td>
<td>38%</td>
</tr>
<tr>
<td>I am extremely glad that I chose IUPUI over other colleges (TRANSFERS)</td>
<td>25%</td>
<td>34%</td>
</tr>
<tr>
<td>I feel a sense of IUPUI Jaguar pride (BEGINNERS)</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>I feel a sense of IUPUI Jaguar pride (TRANSFERS)</td>
<td>21%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Transfer students are significantly less likely to report they are extremely glad that they chose IUPUI or feel a sense of pride compared to Beginners (based on independent samples t-test p < .05)
Transfer students are significantly less likely to report that they see themselves as part of the IUPUI community compared to Beginners (based on independent samples t-test p< .05).
Perseverance

Transfer Students Have Significantly More Resilience than Beginners

No matter how bad things get, I usually stay optimistic
I remain calm in the face of difficulty of adversity
If something can go wrong for me, it will

Mean ratings on a 7-point scale from 1 = Strongly Disagree to 7=Strongly Agree
Confidence

% Reporting Above Average or Highest 10%

- Mathematical Ability: 43% Transfers, 52% Beginners
- Writing Ability: 54% Transfers, 45% Beginners
- Study Skills: 37% Transfers, 32% Beginners
- Leadership Ability: 70% Transfers, 61% Beginners
- Ability to work with others that are different from me: 83% Transfers, 71% Beginners
- Ability to seek appropriate academic help: 50% Transfers, 50% Beginners
## New Student Orientation Evaluation

### Sense of Belonging ($\alpha=.93$)

<table>
<thead>
<tr>
<th>Item</th>
<th>Orientation Type</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Effect Size ($r$)</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel a sense of belonging to IUPUI</td>
<td>2- Day</td>
<td>946</td>
<td>5.95</td>
<td>1.13</td>
<td>.12</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>1-Day</td>
<td>1044</td>
<td>5.66</td>
<td>1.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel that I am a member of the IUPUI community</td>
<td>2- Day</td>
<td>943</td>
<td>5.80</td>
<td>1.18</td>
<td>.13</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>1-Day</td>
<td>1042</td>
<td>5.47</td>
<td>1.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I feel that I fit right in on campus</td>
<td>2- Day</td>
<td>941</td>
<td>5.86</td>
<td>1.21</td>
<td>.12</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>1-Day</td>
<td>1036</td>
<td>5.57</td>
<td>1.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I feel connected with other IUPUI students</td>
<td>2- Day</td>
<td>939</td>
<td>5.58</td>
<td>1.33</td>
<td>.16</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>1-Day</td>
<td>1035</td>
<td>5.14</td>
<td>1.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I see myself as part of the IUPUI community</td>
<td>2- Day</td>
<td>934</td>
<td>5.92</td>
<td>1.19</td>
<td>.13</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>1-Day</td>
<td>1023</td>
<td>5.56</td>
<td>1.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Uses of ESS So Far

• Increase campus understanding of incoming student cohorts (shared widely and presented during intact group meetings)
• Program evaluation of pilot 2-day New Student Orientation program
• Used to understand differences between new first-time beginners and new external transfers
The future

- Predicting Hope
- Enrollment management
- Advising
- NSSE
Promoting Student Success: A Vision

- Academic Hope Score
- Sense of Belonging Score
- External Time Commitments (work-off campus, commuting, care for dependents)
- Academic Preparation (AP credit, HS GPAs, SAT Scores, Academic Honors Diploma)
- FLAGS Early Warning Indicators

Recommended Interventions
Questions!