Improving Survey Data Quality Through Experimentation

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Agenda

- NSSE Background
- Current Survey Trends
- NSSE Experiments: Background & Goals
- Results
- Experimenting on Your Campus
- Q&A

NSSE Background

- NSSE collects first-year and senior student curricular and co-curricular engagement data.
- Survey content areas include:
  - Engagement Indicators
  - High-Impact Practices
  - Additional Academic Challenge Items
  - Perceived Gains
  - Demographics
- Since 2000, about 6 million students from over 1,600 institutions have completed NSSE.

Current Survey Trends

Survey fatigue

- Response rates declining
- Missing data increasing

Changing technology (smartphones)
NSSE Average School Response Rates by Enrollment Size

NSSE Experiments: Background

Participants
Experiments included a diverse set of about 140 institutions

Timing
Fall recruitment / Spring administration

Research Method
Random sampling to create control and treatment groups (almost always)

NSSE Experiments: Goals

Increase response rates
Reduce missing data
Improve the survey taking experience
Other considerations
   Stability: Items & Scales
   Reduce survey duration

NSSE Experiment Snapshot

<table>
<thead>
<tr>
<th>Year</th>
<th>Purpose</th>
<th>Year</th>
<th>Response Rates</th>
<th>Item Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Scrolling/Progress Indicators</td>
<td>2011</td>
<td>✓</td>
<td></td>
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<tr>
<td>2014</td>
<td>Subject Lines</td>
<td></td>
<td>✓</td>
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<td>2014</td>
<td>Survey Panels</td>
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<td>✓ ✓</td>
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<td>2015</td>
<td>Mobile Optimization</td>
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<td>2016</td>
<td>Using Student Portals &amp; LMS</td>
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Results

Scrolling & Progress Indicators

Does dividing a long survey over fewer screens (requiring more scrolling) reduce missing data?

Does missing data decrease when using progress indicators? Does format matter?

Predicted Item Nonresponse Change by Survey Screens

Predicted Item Nonresponse Change by Survey Screens & Progress Indicator Type

Reference group for both survey screen types used no progress indicator.
Subject Lines

Do subject lines with pleas and names increase response rates?

Control: “Help evaluate NSSEville University”

“Please help us by completing your NSSE survey”

“John, please help us by completing your NSSE survey”

Subject Lines: Response Rates

Survey Panels

What happens when you administer NSSE to a survey panel as 8 mini-surveys with under 10 questions each?
Survey Panel: Item Completion

Percent of respondents completing 90% or more of all questions

- Medium Private Univ.: 66% Standard, 80% Panel
- Medium Public Univ.: 77% Standard, 76% Panel
- Small Private Univ.: 73% Standard, 81% Panel
- Small Private College: 73% Standard, 81% Panel

Mobile Optimization

If you optimize NSSE for smartphones, how does this effect response rates and item completion?

Mobile Optimization: Early Abandonment

Optimized group less likely to abandon the survey upon viewing the very first page of survey items.
Mobile Optimization: Missing Data

Optimization appears to reduce missing data though variation exists between first-year and senior populations.

Using Student Portals & LMS

How will posting unique NSSE survey links to student portals and learning management systems change response rates?
Summary

➢ Survey **screen count and progress indicators** can impact missing data, especially 4 screens with progress bar.

➢ Email **subject lines** that use pleas and names appear to increase response rates.

➢ Survey **panels** can lead to good response rates but panel attrition does not always result in the most data.

Summary (cont.)

➢ **Mobile optimization** increases response and reduces missing data.

➢ Posting survey links to **portals/LMS** increase response rates on average, but not dramatically for some institutions.

Discussion

➢ What has and has not worked on your campus?

➢ Is it worth the effort to experiment?

➢ How can you use NSSE findings?

Our Appreciation

Since 2009, 140 institutions have helped us experiment to improve survey data quality

We could not have done it without their help!
2017 NEAIR - Improving Survey Data Quality Through Experimentation

For More Information


More documentation about subject lines is being developed. Contact us if you want more information at this time.

Thank you!

Slides for this presentations can be found at nsse.indiana.edu/html/publications_presentations.cfm

For additional information about NSSE see nsse.indiana.edu

Questions or comments about this presentation? Contact ssarraf@indiana.edu / colejs@indiana.edu