ELI Student / Faculty Questionnaire

Paul R. Hagner
Associate Program Director
EDUCAUSE Learning Initiative
Agenda

• Why Use Questionnaires?
• Types of Samples
• Response Bias
• The ELI Questionnaire
What do you want to know?
When Done Right….

Questionnaires generate data that is useful:
• As a good snapshot
• For benchmarking
• For accreditation
• As a good basis for policy making
When Done Wrong...

Questionnaires lead to:

- “Time well wasted”
- Inaccurate results
- Easily dismissed conclusions
- A poor foundation on which to base policy decisions
Two Types of Questionnaires

• Email Questionnaires
• Web-Based Questionnaires
Email Questionnaires
Web-Based Questionnaires
Two Types of Samples

- Probability
- Population
Probability Samples

Who do you want to generalize to?

What population can you get access to?

How can you get access to them?

Who is in your study?

The Theoretical Population

The Study Population

The Sampling Frame

The Sample
# Probability Samples

## Advantages
- Can be representative
- Generalizable
- Allow for targeted follow-up
- Allow for non-response analyses

## Disadvantages
- Lack of anonymity
- Time intensive
- Response rate
Population Web Questionnaires

**Advantages**
- Can protect anonymity
- Inclusive
- Can be representative
- Not time intensive
- Non-respondent analyses are possible

**Disadvantages**
- No targeted follow-up
- Response rate
- Sample bias
Response Rate: Destroyer of Results

- First thing to understand: numbers don’t matter
- A randomly selected group of 400 can have less sample bias than a non-random one of 10,000
Sampling Error vs. Sample Bias

• Sampling error is estimated based on the number of respondents in your sample
  – The bigger your sample, the lower your sampling error
# Sample Size & Confidence Interval

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Interval</th>
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<tbody>
<tr>
<td>100</td>
<td>+/- 11</td>
</tr>
<tr>
<td>200</td>
<td>+/- 8</td>
</tr>
<tr>
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<td>+/- 4</td>
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<tr>
<td>1,500</td>
<td>+/- 3</td>
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<tr>
<td>4,000</td>
<td>+/- 2</td>
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Sampling Error vs. Sample Bias

- Sampling error is estimated based on the number of respondents in your sample
  - The bigger your sample the lower your sampling error
  - BUT, that assumes you have drawn a random sample!!!
Example 1

- Large Midwestern University does a population survey
- 10,000 responses
- Number of enrolled students: 60,000
- Response rate: 1 in 6
Example 2

- Small Liberal Arts University does a population survey
- 1000 responses
- Number of enrolled students: 6,000
- Response rate: 1 in 6
Sample Bias

• When there is a non-random reason why some are in your sample and some are not
• If this bias is significant, the size of the sample won’t solve the problem
• What matters is the response rate
• The higher the response rate, the less chance of having a high sample bias
Why this matters

• Sample generalizability
• If the reason people do not respond to the survey is related to the topic of the survey itself, you will get an unrepresentative inclusion or exclusion
How High a Response Rate Do You Need?

• Anything under 50% challenges claims that the survey results represent your target population
  – National Center for Educational Statistics

• This is why random samples are better than population samples
How to Improve Your Response Rates

• Be brief!
• Make response opportunities easily understood
• Make the questionnaire look professional
• Do a pre-notification: “A questionnaire is coming and it will demand very little of your time.”
How to Improve Your Response Rates

- Have the project endorsed by a well-regarded (and highly placed) official
- Follow up message: The first, no longer than a week after deployment
- Make them believe that this project is important
- Assure them of confidentiality
The ELI Student & Faculty Questionnaire

http://www.educause.edu/ELIStudentFacultySurvey/10538
Learning New Technologies: Students
Learning New Technologies: Faculty

- Most
- OK
- Least

Options:
- Paper
- Class
- Friend
- Do It
Applications

• Get a sense of your faculty’s willingness to explore new learning technologies

• Explore the “gap” between what your students’ expectations are and what faculty are willing to use
Applications

• “Cut” your data to create a more in-depth understanding of the variation at your institution
  – Gender
  – Class rank
  – College
  – Faculty rank
Piloting the Questionnaire

- You don’t have to engage your entire institution at once
- Select a college to pilot
- After the pilot, you can select another
- Remember: The data is wiped out from our server after it has been sent to you
Benchmarking

• The results can be used for longitudinal comparisons

• Especially useful to examine the impact of implemented policies between administrations
Final Thoughts

• Make friends with someone at your institution who understands survey methodology
• Student research opportunities
• Don’t do it unless you can do it right
• “Having some data is better than having none at all.” - NOT!!!
Final Thoughts

• The results of this questionnaire should be seen as the beginning of a campus dialogue about the changes taking place in teaching and learning
• Use it as a starting point for focus group discussions between faculty and students
• Make teaching and learning with technology a hot topic for your campus