What Do Students Really Mean? Using Qualitative Methods to Contextualize Your NSSE Results

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Overview

- Background Information on NSSE, psychometrics
- Qualitative Investigations Through Cognitive Interviewing and Focus Groups
- Demonstration of Methodology
- Applications for Institutional Research

Testing NSSE for Validity and Reliability

- Since 2000, nearly 1,200 institutions have used NSSE to assess quality in undergraduate education
- Like any new survey, NSSE was rigorously tested to ensure the instrument yields discriminating, valid, and reliable data
- Psychometric analyses show items are sound and reliable;
- Survey items have high face validity, most items tested on the CSEQ, and are grounded in empirical research;
- Items also satisfy conditions for valid self-reports:
  - Questions are phrased clearly and unambiguously
  - Questions refer to recent activities
  - Respondents think questions merit a serious and thoughtful response

Testing NSSE for Validity and Reliability cont’d

- Cognitive research interviews and focus groups are used to discover how students interpret items, and response options, and if this differs from what survey intends
- Cognitive testing and focus groups conducted at 8 institutions in 2000
  - Overall, students interpreted items & response categories as intended, but, meaning of response categories were item specific.
  - Results used to improve phrasing and clarity of questions; response options changed to binary sets in cases where frequency was inappropriate; Some items revamped, ex: “came to class unprepared” to “came to class without completing readings or assignments” to reduce ambiguity

Today’s Focus

- Valuable for institutions to conduct their own in-depth explorations of NSSE survey results locally
- Cognitive research testing and focus groups allow institutional researchers to examine how students interpret NSSE items and whether selected response options mean similar things
- Such findings produce a more contextualized understanding of survey responses which can support campus conversations intended to foster institutional change

Research Design: Cognitive Interviewing

- Provides information about processes used to answer survey questions, to identify potential problems that might lead to survey response error, and to gain a better sense of respondents’ perceptions of items.
- Offers insight into the ways cognitive tasks posed by a survey question are handled by respondents (i.e., comprehension of item, information retrieval), whether the respondent’s answer demonstrates what the question intended, and potential differences by institution, race, or gender (Drennan, 2003).
Focus Group Overview and NSSE Questions

- Item Comprehension
  - For item 1b, what does “Made a class presentation” mean to you?
- Retrieval from Memory
  - For item 2b, what does “Analyzing” mean and can you provide some concrete examples?
- Decision Processes
  - For item 7b, “Community service or volunteer work,” how did you determine your answer?
- Response Selection
  - For item 1h, “Worked with classmates outside of class to prepare class assignments,” what does your response “Often” mean?

Because data collection occurs among groups, there are natural checks and balances that can weed out false or extreme views (Patton, 2002; Robson, 2002).
- For item 1a, what does asked questions in or contributed to class discussions mean to you? PROBE: what does your response (read response) mean?
- For item 9, what do you think is not represented on this list?
- For item 11, what else should be on this list?

Focus groups reduce intimidation that some participants may feel in one-on-one interviews, and ideally create a safe environment to explore questions (Madriz, 2000 as cited in Patton). Natural checks and balances that can weed out false or extreme views, particularly helpful for correlation research, which NSSE uses, to validate findings through more than one research technique, which strengthens veracity and reliability of findings (Brodigan, 1992).

Research Design: Focus Groups

- Focus groups generate ideas through group discussion of, and reaction to, survey questions.
- Can be used in conjunction with quantitative studies as a triangulation procedure (Krueger, 1988).
- Particularly helpful for correlation research, which NSSE uses, to validate findings through more than one research technique, which strengthens veracity and reliability of findings (Brodigan, 1992).

Demonstration: Cognitive Interviews

- Demonstration: Process of doing cognitive interviews and focus groups.
- 1) Comprehension and response option question: For item 1a, what does asked questions in or contributed to class discussions mean to you? PROBE: what does your response (read response) mean?
- 2) Comprehension and response option question: For item 10, complete as a “think aloud.” Follow up: In item d, what does helping you cope with non-academic responsibilities mean to you?
  - Jot down your responses and then pair up with another person to share interpretations.

Demonstration: Interpretation of Data

<table>
<thead>
<tr>
<th>Item</th>
<th>Very Often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. Asked questions in class or contributed to class discussions</td>
<td>Most days in most classes; Asked questions and felt free to ask for help</td>
<td>Variedly participated in most classes, some classes may allow less verbal participation</td>
<td>Can active in class, spoke when had important things to share, selectively asked questions</td>
<td></td>
</tr>
<tr>
<td>1d. Helping you cope with your non-academic responsibilities (work, family, etc.)</td>
<td>Identified multiple campus resources, but included Student Affairs, faculty, and student peers</td>
<td>Named multiple campus resources and also identified areas of unmet need</td>
<td>Identified one campus resource, but also expressed concerns over lack of resources</td>
<td>Described multiple campus needs or special circumstances and some of despair about lack of resources</td>
</tr>
</tbody>
</table>
**Demonstration: Focus Groups**

- Groups arranged by class year, or mixed (FY & SR)
- Determine questions based on CI results (items where there is great variation in responses, or disagreement about intent); or pose questions based on institutional interests
  - “What did everyone mark for item 1q ‘Prompt feedback from faculty’? Tell me what you were thinking about when you responded to this item
  - Prompt: Does anyone have a different answer, or example?

**Recent NSSE Cognitive Testing and Focus Groups**

- Cognitive interview testing of NSSE completed at eight campuses, April-May 2005; focused examination of perceptions of underrepresented students
  - Large Public Research University, Historically Black Universities, Hispanic Serving Institutions, Public Master’s Comprehensive, and Private Liberal Arts College
  - Student Interviews
    - Sample conveniently selected based on student interest and availability. Some interviews pre-arranged by campus contacts. Remaining students recruited by interviewers located in highly-trafficked campus buildings.
    - Students received $10 gift card in exchange. Interviews lasted 35 - 50 minutes.
    - Interviewers either taped and later transcribed interviews or paired-up with another researcher who took notes during interviews.

**Application to Your Campus**

- How might these methods help triangulate NSSE results on your campus?
- What questions are you most concerned about in terms of what your students mean by their response?
- Are there items that may have less face validity with your student populations?
- How might it help to know more about students’ interpretations of response options in terms of what to do with findings?
- How might you initiate this activity on your campus? Who might be interested in this work? Who should conduct the interviews?

**What Makes Student Affairs Ideally Suited for CI s & FGs**

- Immediate access to students
- The ability to easily build rapport with students
- Share interviewing and focus group talents with other campus offices
- Share information with the institution as a whole across functional areas

**What Do Students Gain?**

- Cognitive interviews and focus groups provide students the opportunity to reflect on their behaviors in college
- Institutions will be more intentional about helping to inform and shape student behaviors
  - Learn how to be more explicit about opportunities and academic services that students can take advantage of

**Do-it-Yourself Guide!**


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