Assessment Brown Bag Lunch

Differences and Similarities between Research and Assessment: Goals and Data Collection Techniques

University of Idaho Institutional Research and Assessment
April 24, 2008

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Let’s begin by defining goals associated with research and assessment

Research
- When you conduct research in your field, what are your goals?
  - To confirm a hypothesis
  - To solve a problem
  - To gain new information
  - To advance new knowledge in a discipline

Assessment
- To inform local action
- To gather indicators that will be useful for decision-making and planning
- To gather evidence about how well students are meeting the learning outcomes
- To promote continuous improvement


Group Participation
Research: Scholarly and Creative Activity

Assessment of Learning Outcomes

External Focus

Program Review: Internal Focus
Next, let’s identify data collection techniques

- **Research Data Collection Techniques**
  - When you conduct research in your field, what data collection techniques do you use?
    - Controlling variables
    - Replication

- **Assessment Data Collection Techniques**
  - Direct Measures
  - Indirect Measures
  - Focus Discussion

Assessment
From where does good evidence come?

- Direct Evidence of Student Learning
  - Internal Standards
    - Portfolios of student work
    - Student work scored using a rubric
    - Capstone projects or presentations
    - Musical performances
  - External Standards
    - Licensure examinations
    - Nationally normed discipline examinations

San Francisco: Jossey-Bass
Assessment
From where does good evidence come?

- Indirect Evidence of Student Learning
  - Surveys
    - Students, faculty, alumni
  - Exit Interviews
  - Student ratings of their knowledge and skills
  - Records of job placement, graduate school admissions, or fellowships won by graduating majors
- Focus Group Discussions

San Francisco: Jossey-Bass
The integrated use of qualitative and quantitative methodologies

- “Good assessment requires multiple ways of measuring goal achievement .... Assessment should use multiple measures, both qualitative and quantitative, rather than relying on one instrument or activity.”

(Baillargeon, J. (1999 – handout). Student Learning Assessment at the Program Level.

Using Mixed Methods in Assessment
The integrated use of qualitative and quantitative methodologies

“The data from mixed methods research provide a rich source for measuring the environment…. According to Johnson and Onwuegbuzie, ‘the goal of mixed method research is to maximize the strengths and minimize the weaknesses of [qualitative and quantitative methods] in a single research study’ (2004, p.15). Departments that strive to gain a deeper understanding of their proposed assessment question find the mixed methods approach to be beneficial.”

Other methods to promote the rigor of assessment

- Prolonged engagement with the participants and setting
- An audit trail of changes that occurred during the study
- Providing a thick description of setting and context
- Clarification of researcher bias
- Member checking – when participants agree with conclusions
- Peer debriefing – when a colleague challenges results and the researcher provides support

Baillargeon, J. (1999 – handout). *Student Learning Assessment at the Program Level.*
What is Triangulation?

- Evidence of trustworthiness
- Promote rigor of assessment

Review data collected through different methods
Example: Results of an assessment process

**DIRECT MEASURE**
Meeting Observations

**INDIRECT MEASURE**
Graduating Senior Survey

**FOCUS GROUPS**

- **Facilitative Leadership Rubric**
- **Ability to... lead others, use effective group process skills**

- **Code & Identify “Common Themes”**
  - **Unclear Goals**
    - “I didn’t know what we were trying to accomplish.”
  - **Limited Group Participation**
    - “A few people dominated most meetings.”
  - **More Training**
    - “I would like leadership feedback after meetings.”

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4/24/2008
Actions need to be linked to the data used in the review and analysis of the program.

4/30 to Beginning of Fall Semester: Minutes from this meeting are a required upload in the system.
Program Assessment
How rigorous do you want your data collection to be?

- “Scholarship of Assessment”
  - More rigorous data

- “Data–driven and Quality Decision Making”
  - Less rigorous data

“Good Enough Assessment”
- resource limitations
- time limitations
- organizational contexts
- implementation limitations
- political contexts
Assessment for data-driven decision making: Potential limitations and compromises

- A sample may not be representative of the population under study
- The response rate may not be as high as desired, and thus the statistical analyses may be limited or the sample error increased (or both)
- Instruments may be poorly designed
- Instruments failed to meet psychometric standards such as reliability and validity
- Fewer people than expected showed up to participate in focus discussions
- Interviewers failed to perform effectively

## Assessment
### The “Good Enough” Principle

<table>
<thead>
<tr>
<th>When does an assessment study become so compromised that it should never be done, or discarded if implemented?</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Good Enough” Principle</td>
</tr>
<tr>
<td>◦ “Rossi and Freeman (1993)….the investigator has the responsibility to ‘raise the question whether to undertake the assessment at all, especially if meaningful results are unlikely’ (p. 220).” (Schuh, J.H., Updraft, M.L., (2001). p. 7)</td>
</tr>
</tbody>
</table>

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**Group Participation**

Assessment
The “Good Enough” Principle

- When it comes to the usefulness of an assessment study for decision-making, is a study with substantial limitations better than no study at all?

- “…Within reason, limited data are better than none at all, but bad data should never be used under any circumstances.”

Group Participation

Assessment
The “Good Enough” Principle

“Good Enough” with one important and major caveat:

- “…all compromises made must be clearly identified when an assessment report is published, cautioning all prospective audiences to take into account the study’s various limitations as they decide what credence to give to the study.”

(Schuh, J.H., Updraft, M.L. (2001), p. 8)
## How would you respond?

<table>
<thead>
<tr>
<th>Program assessment for data-driven decision-making requires…</th>
<th>Yes</th>
<th>No</th>
<th>Possibly</th>
</tr>
</thead>
<tbody>
<tr>
<td>A random sample that is representative of the population to be studied</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A sample which is in a position to be knowledgeable about the topic under consideration</td>
<td>![Select]</td>
<td></td>
<td></td>
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<tr>
<td>Reliability testing: the extent to which an instrument, experiment, test or any procedure yields the same results on repeated trials</td>
<td></td>
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<tr>
<td>Validity testing: the degree to which a study accurately reflects or assesses the specific concept the researcher is trying to measure</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
## How would you respond?

<table>
<thead>
<tr>
<th>Program assessment for data-driven decision making requires….</th>
<th>Yes</th>
<th>No</th>
<th>Possibly</th>
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</thead>
<tbody>
<tr>
<td>A peer review or expert panel to review focus discussion questions</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The use of a tape recorder when conducting focus group discussions</td>
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<tr>
<td>Member checking – have participants review/edit/agree with the qualitative analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A systematic method to code qualitative data</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**How would you respond?**

<table>
<thead>
<tr>
<th>Program assessment for data-driven decision making requires....</th>
<th>Yes</th>
<th>No</th>
<th>Possibly</th>
</tr>
</thead>
<tbody>
<tr>
<td>A statement of the problem and purpose of the study</td>
<td>☑️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A statement of the research hypothesis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A theoretical framework on which to base the study</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>A literature review</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Statistical analysis</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>A statement of limitations</td>
<td>☑️</td>
<td></td>
<td></td>
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<tr>
<td>Conclusions and recommendations</td>
<td>☑️</td>
<td></td>
<td></td>
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The Six Thinking Hats® method in assessment activities

- **Blue Hat:** Managing the Thinking
- **White Hat:** Information and Data
- **Red Hat:** Feelings, Intuition, Instinct
- **Yellow Hat:** Benefits and Feasibility
- **Black Hat:** Risks, Difficulties, Problems
- **Green Hat:** New Ideas, Possibilities
**Example: Questions to ask using Six Thinking Hats®**

<table>
<thead>
<tr>
<th>Managing the Thinking</th>
<th>Analyze the methods used to collect data for the assessment plan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information &amp; Data</td>
<td>• What data were we intending to gather?</td>
</tr>
<tr>
<td></td>
<td>• What data do we have? Do we still need?</td>
</tr>
<tr>
<td></td>
<td>• What compromises/limitations were made?</td>
</tr>
<tr>
<td>Benefits &amp; Feasibility</td>
<td>• What worked well?</td>
</tr>
<tr>
<td></td>
<td>• What knowledge did we gain?</td>
</tr>
<tr>
<td>Risks &amp; Difficulties</td>
<td>• What difficulties did we encounter?</td>
</tr>
<tr>
<td></td>
<td>• What unexpected problems surfaced?</td>
</tr>
<tr>
<td>Feelings &amp; Intuition</td>
<td>• How do I feel about the process used?</td>
</tr>
<tr>
<td></td>
<td>• Do the data agree with my intuition and experiences?</td>
</tr>
<tr>
<td>New Ideas &amp; Possibilities</td>
<td>• Base focus group questions on the results from the pre/post-trip surveys</td>
</tr>
<tr>
<td></td>
<td>• Have three peers review the questionnaires</td>
</tr>
<tr>
<td></td>
<td>• Use an outside facilitator and note-taker for focus group discussions</td>
</tr>
</tbody>
</table>
Questions & Comments

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