Assessment Methods and Data Collection
Campus Intelligence
Your Source for Reimagining Data in Higher Ed
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NASPA/ACPA Competencies

Select AER methods, methodologies, designs, and tools that fit with research and evaluation questions and with assessment and review purposes.
Learning Outcomes

Connect learning to Assessment Design and Methods

Articulate steps to design and focus an assessment project

Create an assessment plan for an assessment project
“Assessment prompted from any source can ask good or useless questions, collect appropriate or off-point data, and come to meaningful or distracting conclusions.”

– Keeling, Wall, Underhile, & Dungy, p. 3
Types of Assessment

- Benchmarking
- Outcomes – student learning; program
- National Standards
- Cost effectiveness
- Student cultures and campus environment
- Needs Assessment
- Satisfaction Assessment
- Tracking
“Any assessment project can be placed on a continuum of rigor from doable to ideal. A doable assessment project may simply use personal experience and anecdote, whereas an ideal assessment project may employ validated collection tools and the triangulation of data from multiple sources. Decisions on where any project should be on this continuum should be made based on the importance of the inferences”

Henning & Roberts, p. 48
Getting the “right data”

Answers the purpose of your assessment

Understanding of what you want to know

Well designed assessment instruments

THE “RIGHT” DATA
The level helps us decide what and how to assess
Assessing Learning and Program

1. Determine your **OUTCOMES**

2. Determine your **METHODS**

   Statements indicating what a participant (usually students) will know, think, or be able to do as a result of an event, activity, program, etc.
Questions that Guide the Assessment Process
(Schuh, Biddix, Dean & Kinzie, 2016)

What are the issues at hand?

What is the purpose of the assessment?

Who should be studied?

What is the preferred assessment method?

How should we collect our data?

What instrument should we use?

How should we analyze our data?

How should we report the results?

How can we use the data for improvement?
Focusing the Assessment

1. Describing the rationale and purpose of the assessment.
2. Identifying the assessment’s stakeholders.
3. Determining the assessment’s key questions.
Purpose and Rationale
Key Considerations

Background and history of the program (including mission, key activities, short and long-term outcomes)

Resources

Expectations for the assessment

Intended use of assessment results
Purpose: Clarifying Questions  
(Patton, 2008)

What decisions will be made with assessment results?  
When will decisions be made and by whom?  
What is at stake in the decisions?  
What other data will be used to make decisions?  
What are the politics and values at play?
Developing a Purpose Statement

Two to three sentence purpose statement

Example purposes:

• Make decisions about program improvement
• Evaluate student learning
• Evaluate impact
• Build support for resources
• Develop programs and initiatives
## Purpose Statements/Questions

<table>
<thead>
<tr>
<th>Poorly Worded Questions</th>
<th>Problems with Questions</th>
<th>Revisions of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the Emerging Leaders program effective?</td>
<td>This is a yes-no question. In addition, it fails to define effectiveness.</td>
<td>In what ways do the participants in the Emerging Leaders program demonstrate their leadership skills?</td>
</tr>
<tr>
<td>What have you learned in the Residence Life RA Training?</td>
<td>A question asked directly of a participant (survey, focus group)</td>
<td>What knowledge and skills have participants in the Residence Life TA Training gained?</td>
</tr>
<tr>
<td>Does Bystander Intervention training achieve its goals?</td>
<td>This doesn't capture the main purpose of the program, which is to increase bystander intervention knowledge and skills.</td>
<td>To what extend does the Bystander Intervention training facilitate increased bystander intervention knowledge and actionable skills?</td>
</tr>
</tbody>
</table>

Adapted from Russ-Eft & Preskill, p. 170
Purpose Statements: Examples

The purpose of this assessment is to identify the knowledge and skills needed by first-year RAs. The results will be used to develop a training program to be implemented for new RAs.

The purpose of the assessment is to identify how student employees use the skills from their training program. The assessment will also examine what factors support or hinder skill use. The results will be used to modify employee training content and delivery.
Purpose

Method
Involving Stakeholders
Stakeholders

“One who has substantial ego, credibility, power, futures, or other capital invested, and thus can be held to be to some degree of risk with it”

Russ-Eft & Preskill, p. 166
Differentiating Stakeholders

1. Primary: Those who make the assessment happen; responsible for the successful design, development, implementation and resources.

2. Secondary: More removed from daily operations but have important stake in the outcomes.

3. Tertiary: Some interest in the assessment for future planning or decision-making and/or have a general interest in the results.
Determining Key Questions
Key Questions

Make sure they are truly over-arching general questions
Change yes-no to open-ended
Group by themes or categories
Prioritize: need to know vs. nice to know
Agree on those of most immediate concern
Use them to shape and guide the assessment project
Logic Model

“A logic model is a systematic and visual way to present and share your understanding of the relationships among the resources you have to operate your program, the activities you plan, and the changes or results you hope to achieve.”

W.K. Kellogg Foundation 2004
Logic Model

Certain resources are needed to operate your program. If you have access to them, then you can use them to accomplish your planned activities. If you accomplish your planned activities, then you will hopefully deliver the amount of product and/or service that you intended. If you accomplish your planned activities to the extent you intended, then your participants will benefit in certain ways. If these benefits to participants are achieved, then certain changes in organizations, communities, or systems might be expected to occur.

1. Resources/Inputs
2. Activities
3. Outputs
4. Outcomes
5. Impact

Your Planned Work
Your Intended Results
Logic Model Template for Typical Student Affairs Department Programs

**Goals:** Broad general statements of what a department wants its constituents to know or do. Goals generally describe what the program is trying to accomplish. Typically only 3-5 goals for a department.

**Mission:** Describes the purpose of the organization and the constituents served. It clearly relates to the Oregon State University and the Division of Student Affairs Missions.

**Programs:** Sets of related activities and outcomes that consume a meaningful portion of the departmental resources (persons, dollars, time, etc.) and that are designed to support the department's goals.

**Inputs:**
- Resources dedicated to the program: e.g., Money, Staff, Time, Equipment
- Constraints on the program: e.g., Laws, Regulations

**Activities:**
- Activities that are done to deliver the program: e.g., Provide workshops, Advise students, Distribute brochures, Develop handbook, Teach classes, Provide training, Give tests

**Operational/Busines Outcomes:**
- Products from the activities: e.g., Number of workshops, Number of people advised, Types of brochures produced, % served, % satisfied, Amount of money collected

**Learning Outcomes:**
- Benefits for participants: e.g., Gained new knowledge, Increased skill, Modified behavior, Improved their condition, Positively altered their status

Appendix G from Oregon State University Division of Student Affairs Assessment Handbook
Thinking About Costs
(Besciani, Gardner, & Hickmott, 2009, p. 160)

What types of instruments or methodologies will be used to collect the data?

How will the data be analyzed and by whom?

What types of technology and technological support will be used?

Who will be involved in the assessment process and in what ways?

How will the results be communicated?

What kinds of professional development are needed to implement the planned assessment methods, data analysis, interpretation of the data and communication of findings?
Assessment Plan

1. Mission
2. Program description
3. Statement of goals
4. Statement of outcomes (learning, operational)
5. Implementation of Assessment Plan (tied to outcome, method, timeline, responsibility)
6. Results
7. Decisions and Recommendations
“Data collection refers to the process of determining, gathering, and assembling data to support an assessment project.”

(Schuh, Biddix, Dean & Kinzie, 2016)
Data collection is a multi-stage process that involves:

- **Identifying** a sample
- **Determining** how to access the sample
- **Collecting** the data
- **Aligning** the sample with the goals of the assessment
- **Selecting or developing** an instrument
What type of data do you need?

**Qualitative**

Data that can be expressed as a number/quantified

Easier to report and analyze

Can generalize to greater population with larger samples

Less influenced by social desirability

Can involve less time, money

**Quantitative**

Data that focuses on text/narrative from respondents

More depth/robustness

Ability to capture “elusive” evidence of student learning and development

Specific sample
Philosophical Assumptions
(Creswell, 2009)

Qualitative
- Means to explore meaning
- Emerging questions and procedures
- Embedded in the setting
- Researcher interpretations
- Inductive style
- Complexity of situation

Quantitative
- Testing theories
- Examining relationships between variables
- Measurement with instruments
- Analysis with statistical procedures
- Theories tested deductively
- Built in protections against bias
- Controls
- Generalizability
Qualitative v. Quantitative

“Qualitative and quantitative approaches should not be viewed as polar opposites or dichotomies; instead, they represent different ends on a continuum”

Newman & Benz, 1998
Example: Quantitative

Q15. Which program are you attending?

<table>
<thead>
<tr>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>205</td>
<td>33.66%</td>
</tr>
<tr>
<td>195</td>
<td>32.02%</td>
</tr>
<tr>
<td>209</td>
<td>34.32%</td>
</tr>
</tbody>
</table>

Lunchtime Lecture Series  
Jeopardy  
Welcome Back Party

609 Respondents

Q16. Please indicate your level of agreement with the following statement:
The program provided me with resources that promote personal and academic success, wellness and/or responsible decision making.

<table>
<thead>
<tr>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>194</td>
<td>19.40%</td>
</tr>
<tr>
<td>204</td>
<td>20.40%</td>
</tr>
<tr>
<td>209</td>
<td>20.90%</td>
</tr>
<tr>
<td>186</td>
<td>18.60%</td>
</tr>
<tr>
<td>207</td>
<td>20.70%</td>
</tr>
</tbody>
</table>

Strongly agree  
Agree  
Neutral  
Disagree  
Strongly disagree

1000 Respondents
Example: Qualitative

<table>
<thead>
<tr>
<th>Count</th>
<th>Percent</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>100.00%</td>
<td>Q10. What offices and/or departments are responsible for intervening with students that are considered “at risk”?</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Academic Advising, Residence Life</strong></td>
</tr>
<tr>
<td>1</td>
<td>25.00%</td>
<td>Center for Student Success, faculty advisors, other student development staff, Dean for Student Success and Strategic Initiatives and Director of Advising (new position to be filled in early September). We also use a team based approach that includes ARC/Peer Tutoring, Disability Services (SASS), First Year Seminar Faculty, Faculty Advisors and the Registrar’s Office.</td>
</tr>
<tr>
<td>1</td>
<td>25.00%</td>
<td>Student affairs, deans, academic advisors, C.A.R.E. team, coaches, security, counseling and health centers, admissions</td>
</tr>
</tbody>
</table>

4 Respondents
Existing Datasets vs. Data Collection

NSSE  CIRP  IPEDS  Datasets from IR
What type of data do you need?

**Summative**
Conducted *after* the program
*Evaluates* student learning after learning has taken place
Can be incorporated into *future plans*

**Formative**
Conducted *during* a program
*Monitors* student learning as it’s happening
Purpose is to provide *feedback*
Use to shape, modify or improve program *right now*
Examples

**Summative**
- Event attendee follow-up survey
- Focus groups after program participation
- Rubric to evaluate presentation

**Formative**
- Show of hands at beginning of workshop/meeting
- Quiz questions throughout RA training
What type of data do you need?


**Indirect Measure/Method**

- Any process employed to gather data which asks students to reflect upon their knowledge, behaviors, or thought processes.
- Provides evidence of students’ attitudes, perceptions, and experiences

**Direct Measure/Method**

- Any process employed to gather data which requires students to display their knowledge, behavior, or thought processes.
- Provides evidence of student learning
Examples

Indirect Measure/Method

Please rate the extent to which you agree with the following:

*I can identify three offices on campus that can help me if I’m having trouble in my classes.*

• Strongly agree
• Agree
• Disagree
• Strongly disagree

Direct Measure/Method

Please list three offices that can help you if you’re having trouble in your classes:

1.
2.
3.
### Critical Thinking

<table>
<thead>
<tr>
<th>Capstone 4</th>
<th>Milestones 3</th>
<th>Milestones 2</th>
<th>Benchmark 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation of Issues</strong></td>
<td>Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.</td>
<td>Issue/problem to be considered critically is stated, described, and clarified so that understanding is not severely impeded by omissions.</td>
<td>Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplained, boundaries undetermined, and/or backgrounds unknown.</td>
</tr>
<tr>
<td><strong>Evidence/Explanations and Using Information to Investigate a Point of View or Conclusion</strong></td>
<td>Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.</td>
<td>Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.</td>
<td>Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.</td>
</tr>
<tr>
<td><strong>Influence of Context and Assumptions</strong></td>
<td>Thoroughly (systematically and methodically) analyzes own and others’ assumptions and carefully evaluates the relevance of contexts when presenting a position.</td>
<td>Identifies own and others’ assumptions and several relevant contexts when presenting a position.</td>
<td>Questions some assumptions. Identifies several relevant contexts when presenting a position.</td>
</tr>
<tr>
<td><strong>Evaluates Position (Perspective, Thesis/Hypothesis)</strong></td>
<td>Specific position (perspective, thesis/hypothesis) is integrative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others’ points of view are synthesized within position (perspective, thesis/hypothesis).</td>
<td>Specific position (perspective, thesis/hypothesis) is taken, with account of the complexities of an issue. Others’ points of view are acknowledged within position (perspective, thesis/hypothesis).</td>
<td>Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.</td>
</tr>
<tr>
<td><strong>Conclusions and Related Outcomes (Implications and Consequences)</strong></td>
<td>Conclusions and related outcomes (consequences and implications) are logical and reflect students’ interpretation and ability to place evidence and perspectives discussed in priority order.</td>
<td>Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.</td>
<td>Conclusion is logically tied to information (because information is chosen to fit the desired conclusions; some related outcomes (consequences and implications) are identified clearly.</td>
</tr>
</tbody>
</table>

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Outcome Assessment in Action: What type of data would you need?

Outcome Examples

After attending fall training, student organization advisors will be able to:

• Accurately articulate the five key policies related to org management at Hometown University.
• Explain why risk management is important to successful student organization management.
• Identify at least three legal issues relevant to student organization management.

Should these outcomes be assessed:

• Quantitatively, qualitatively, or both?
• Summatively, formatively, or both?
• Indirectly, directly, or both?
Once You’ve Decided: Other Considerations

Sample size

Timeline

How to ensure validity & reliability (quantitative) and/or credibility & conformity (qualitative)
Advantages/Disadvantages to Select Assessment Methods
Rubrics

**ADVANTAGES**
- Clearly defines expectations
- Helps operationalize nebulous concepts

**DISADVANTAGES**
- Time-consuming to develop
- May be ineffective if not normed
Advantages:
- Useful for a large population
- Easily administered
- Easy to compare longitudinally
- You can ask a variety of questions
- Quick data turnaround
- Good for statistical reporting

Disadvantages:
- Indirect measure
- Interpretation—lack of skill in understanding results
- Low response rates
- May need secondary direct measure to learn more information
Focus Groups

**ADVANTAGES**
- Able to collect a lot of rich data in short time
- Explore perceptions, beliefs and opinions
- Explore specific themes
- Participants build off each other’s ideas
- Can be a good follow-up to a survey

**DISADVANTAGES**
- Facilitation requires skill
- Not generalizable to population
- Time needed for preparation and analysis
- Lack of control over discussion
- Can be difficult to attract participants
- IRB may be required
Resources
References


Oregon State University Division of Student Affairs Assessment Handbook: http://oregonstate.edu/studentaffairs/sites/default/files/docs/Assessment_Handbook_2006.pdf


Thank You!

Questions?