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Identifying and Using Multiple Measures for Assessment of Student Learning Outcomes

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Once the desired student learning outcomes (SLOs) have been identified, as well as when and where the opportunities for student learning occur and by when you want the learning to occur, the next step is to determine who or what will be measured and how the data will be gathered...

...using ***multiple measures*** of varying types

The Assessment Matrix/Table

Institutional Mission Statement	Local Mission Statement	Specific Goal or Objective	Specific SLO	Opportunities for Student Learning to Occur	By When You Want Outcome To Occur	Outcome Measures	Data Instrument(s)	Minimum Performance Criteria for Success (Threshold)	Action(s) Based on Outcome Data

Mapping of Outcomes

Adapted from Robbins (2009, 2011, 2016); Robbins & Adams (2013); Robbins, & Zarges, (2011)

Why Multiple Measures?

- No assessment is perfect and precise
- Goal is to “*strive to make assessments sufficiently truthful that we will have reasonable confidence in our findings and can use them with enough assurance to make decisions...*” (Suskie, 2009, p. 38)
- “Union of Insufficiencies” (Shulman, 2007)

Initial Considerations

Multiple measures means going beyond...

- a simple satisfaction survey or advisor evaluation
- an individual measure that *evaluates* (rather than assesses) a *single* dimension of a *single* phenomenon

Remember, **assessment is the overall look at a whole program** and evaluation is a part of this process - you evaluate an individual advisor, event, workshop, or service while you assess the entire academic advising program to see if the desired SLOs have been achieved

“One of the most dangerous and persistent myths in American education is that the challenges of assessing student learning will be met if only the right instrument can be found...”

Schneider & Shulman in Suskie (2009)

Each of the multiple measures utilized should vary in type

- Qualitative
- Quantitative
- Direct
- Indirect

Mixed-methods help ensure validity

Qualitative

- exploratory
- small samples
- open-ended
- emerging information
- subjective, inductive interpretation of data
 - examples
 - focus groups
 - case studies
 - naturalistic observation

Information/data in form of rich, in-depth responses (words)

Quantitative

- descriptive
- large samples
- structured
- objective, deductive interpretation of data
 - examples
 - questionnaires
 - surveys
 - experiments

Information/data in form of numbers, measures (statistics)

Qualitative vs. Quantitative

*“**Qualitative assessments** use flexible, naturalistic methods and are usually analyzed by looking for recurring patterns and themes.”*

*“**Quantitative assessments** use structured, predetermined response options that can be summarized into meaningful numbers and analyzed statistically.”*

Suskie (2009)

Direct

- may be qualitative or quantitative
- examples
 - direct observation of advising interaction
 - pre-test/post-test of variable leading to desired outcome
 - standardized test or inventory measuring student learning
 - tracking of student data (enrollment rates, retention rates, GPAs, transcript analysis, etc.)
 - counts of use of services
 - advisor:student ratios

Indirect

- may be qualitative or quantitative
- examples
 - focus groups
 - surveys, questionnaires
 - interviews
 - reports
 - tracking of student perceptions (satisfaction, ratings of advisors, ratings of service, etc.)
 - tracking of advisor perceptions (student preparedness, estimation of student learning, etc.)

Direct vs. Indirect

*“**Direct evidence** of student learning is tangible, visible, self-explanatory, and compelling evidence of exactly what student have and have not learned. It might also be defined as the kind of evidence that a skeptic would accept.”*

*“**Indirect evidence** consists of proxy signs that student are probably learning. Indirect evidence is less clear and less convincing than direct evidence.”*

Suskie (2009)

Measures May (and should) Include Existing Institutional Data

Information from Institutional Research, Admissions, Registrar, etc. can provide tracking data, GPAs, retention rates, and other information you can utilize as assessment data

Institutional Data

- Why reinvent the wheel, so to speak, if there are existing institutional data that relate to a question you would like answer regarding your advising program?
- Become knowledgeable regarding what type of data your institution is already collecting
- Get to know your institutional data people, and include them as stakeholders in the assessment of your advising program
- Remember that any single type of data should be utilized as just one measure among multiple measures for each phenomena you are evaluating within your overall assessment effort

You also need to identify the minimum criteria for success / success threshold for the desired SLO measure to say that the outcome has been achieved

Determining minimum criteria / threshold for success for an outcome measure

- existing institutional data
- peer institution benchmarking
- accreditation requirements
- published literature
- pilot data
- other?

If none of the above exist...use the first cycle of assessment of a given outcome as baseline data gathering process

An Additional and Important Consideration

Even if your outcome data supports the achievement of the desired SLO – how do you know that the student learning was a result of academic advising???

...you must directly observe the learning OR literally have to ask students “where did you learn the information,” “how did you know to do the behavior,” and/or “how did you develop the appreciation” in regard to the SLO

Remember...

“In a way, good assessment is teaching to the test. Assessment is part of a process that identifies what we want students to learn, provides them with good opportunities to learn those things, and then assesses whether they have learned those things.”

Suskie (2009)



Sample SLOs and Measures

As a result of academic advising, students *know where to find information on academic requirements* (cognitive SLO)

- Pretest-post-test (direct measure)
- Identify on survey from list of options (direct)
- Demonstrate during advising meeting (direct)
- Ask self-perception of knowledge (indirect)

As a result of academic advising, students correctly *utilize their degree audit* (behavioral SLO)

- Demonstrate during advising meeting (direct)
- Self- report of use (indirect)
- Web metrics re: number of students utilizing degree audit combined with correct course schedule

As a result of academic advising, students *value diverse perspectives* (affective SLO)

- Ask self-perception of valuing (indirect)
- Pretest-post-test (direct measure)
- Advisor rating of advisee's valuing (indirect)

Remember:

In order to connect the learning that has occurred to academic advising, you must either

(1) observe where the students learned/developed the outcome, or

(2) ask students they learned/developed outcome

- via direct perception
- via follow-up question on post-test, survey
- via focus group samples
- via some other means

Remember:

You do not need to assess each and every student in your population/cohort for each desired SLO

- random sampling
- purposeful sampling
- cluster sampling
- systematic sampling
- other sampling...

To Be Continued for Your Program...

Select one of *your* student learning outcomes and identify three ways to measure whether or not that specific SLO has been met (including outcome measures, minimum performance criteria for success, and data instruments)

Share, get feedback, revise, and do the same for all of the SLOs you want to assess this cycle...

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2018 IowaAAN Conference Follow-Up

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