

Assessment Series: Overview of Direct Assessment

J. Dickinson Associate Provost for Academic Affairs

Goals for today:

• Review direct vs. indirect assessment techniques

• Outline key points for direct assessment

• Present a few examples of tools for direct assessment

Steps in Program Assessment Planning

- 1. Develop program-level outcomes with input/drafts by faculty
- 2. Map curriculum to identify places where students learn, practice and demonstrate their mastery of the outcomes, as well as gaps
- 3. Gather additional information about student progress within this curriculum through both direct and indirect assessments, e.g.:
 - Surveys of majors and/or alums
 - Faculty summaries of students' performance on expected skills
 - Rating of samples of student work against a rubric based on an outcome
 - Other indicators (retention of skills from prerequisite courses; identifying predictors of students success, etc.)
- 4. Use this initial information to develop a plan for assessment of student progress towards/achievement of learning outcomes
- 5. Progress through the assessment cycle, making sure to regularly review information and "feed it back" into planning and assessment

Components of an assessment cycle

- Assessments (direct and indirect)
- Frequency of each assessment
- Processes for regular review and reporting for each assessment activity (can be combined)
 - For example, a department may conduct and review a majors' survey every year, but do an alumni survey every three year, as well as create a combined report on findings from both with recommendations for action every three years
- Processes for using data from assessments to inform curricular change; each change should be monitored in the next cycle of assessment

Selecting assessment methods

"When developing assessment methods, make sure your selections:

- answer questions that are important to you
- are manageable, given available resources (including time and money)
- result in useful feedback that highlights accomplishments and identifies areas requiring attention"

-From "Program-base Review and Assessment" Stassen, et al., pg. 29

What are "direct" and "indirect" assessment?

- Direct assessment uses evidence from examples of student work to evaluate how well students are meeting or progressing towards meeting specific learning outcomes
- Indirect assessment uses other types of evidence besides actual student work (alumni surveys; grad school admission; employment figures) that may also indicate whether students are meeting program outcomes

Value of both Indirect and Direct Assessments

Indirect assessments usually:

- are less resource-intensive
- require less faculty time
- can be conducted on an ongoing basis
- introduce other voices (student voices, alumni voices, employer/supervisor voices) into your assessment process

Direct assessments of student work:

- are considered the 'gold standard' in assessing student learning
- can provide more accurate and nuanced information about overall strengths and weaknesses of student work
- Involve faculty evaluating students progress towards the goals faculty have identified for the program

Example assessments

Indirect

- Survey of majors
- Survey of alums
- Feedback forms for internship supervisors or alumni employers*
- Evidence of program success (job placement; graduate school placements; passing of licensing exams)
- Forums/town halls
- Interactive exercises (e.g. student maps of their own progress through the major)

Direct

- Samples of student work are rated against a rubric by faculty
- Faculty review work in a course they teach and summarize strengths and weaknesses of majors at a particular level
- Exam questions are identified and student performance on those questions rated/evaluated against program goals
- Pre-post tests/samples of student work identify whether target aims of a course are being fulfilled.

More direct assessment examples:

- Student performance on degree-level assignments, projects or exams (e.g. capstone project; thesis; comprehensive exam)
- Student performance on qualifying, certification or external exams that closely correspond to program outcomes
- Performance in juried competitions that correspond to outcomes
- Evaluation/rating sheets filled out by supervisors (e.g. internships, externships, research supervisors) that give information about performance levels in specific areas corresponding to learning outcomes set by the program faculty

How does direct assessment work?

The basics:

- 1. Identify what you want to know, e.g. "Are students meeting our outcome related to drafting a research proposal?" Be specific.
- 2. Identify a curricular location and specific assessment that will give you data to help answer your question
- 3. Clearly lay out what raters will look for in evaluating samples of student work and articulate this in a rubric/scoring sheet
- 4. Conduct a "norming session" to increase interrater reliability
- 5. Bring raters together to score work. Be sure to debrief.
- 6. Analyze results, then present/discuss them with department and decide on next steps.

Zero in on the smallest item you can

- 1. Start at the curricular level where is it taught?
- 2. Move to the course level where is it practiced/demonstrated?
- 3. Move to the level of assignments/questions/exams what should you gather to get the information you want to know?

Where is the outcome being taught?

First look at your curriculum map:

- In which courses does the outcome you are looking at appear?
- In which courses is it introduced, in which is it reinforced and expanded, and in which is it engaged the most deeply?
- Do you want evidence of early, middle, or later student work?
- Are there events outside of the official curriculum that demonstrate it? (competitions; service learning experiences, etc.)

Next, look at the course level:

Then look at the courses where it is being taught:

- What assignments offer evidence of progress towards that outcome?
- Is there a common in-class activity where it is visible?
- Is there a take-home project that demonstrates it?
- Is there a longer project that shows it?

Finally, narrow your choices:

• Try a fill-in-the-blanks exercise: Evidence of [outcome component] will look like

• What is the smallest thing you can look at to see evidence of student achievement of that outcome?

Remember:

- Some of your outcomes may need to be assessed in other ways than collecting assignments or exam responses
- Focus on the outcomes that are in your assessment plan for the current year, even if there is evidence of other outcomes in the material you are looking at. Consider looking through one/two lenses a year.
- Value of "both/and" use a cohort lens, but also see where data aggregated across cohorts/years can be helpful

Practical considerations

- Ease of collection
- Ease of anonymizing and enumerating
- Do multiple copies need to be made/circulated?
- Are grades/scores already calibrated to an outcomes measurement?
- What is the total time per artifact to prepare examples for scoring?
- What is the total time required to score and process the scoring sheet for an artifact?
- How much staff/faculty/worker time is available to manage this project?

Approaches to scoring/rating

Some types of scoring methods

- Rubric provides descriptions of levels of achievement
- Likert scale uses a relative scale (e.g. "novice" to "expert") to score
- Primary trait scoring evaluates specific traits/components in the work
- Holistic scoring evaluates the level of the work as a whole, not as a combination of traits
- Competency-based/specs scoring binary "meets/does not meet"

Factors to consider

- Richness of information vs. time required to score
- If your scoring method/scale is very complex, how much of that complexity will actually be used in the analysis?
- What resources do you have for analysis of collected data (e.g. descriptive vs. inferential statistics)?
- No matter what kind of scale you use, you will want to have a way to "norm" (reach agreement on) examples that match different scores on the scale

Let's consider some examples

• Take out your handout with examples of scoring sheets from different direct assessment events

Processing and making sense of your direct assessment results

Closing the loop on the rating day

- Always report out the raw qualitative and quantitative results to the program or department and to the participants in the rating day
- As part of this process, solicit insights what do the raw results say to them?
- Always record and retain questions that arise, for example by using a "parking lot" method during the final discussion during a rating day

Tackle the analysis

- Stay open to both qualitative and quantitative analytical methods for your data.
 - Look for themes, things that resonate with faculty, or emerging consensus about areas of strength and weakness. If possible and sample sizes allow, both descriptive and inferential statistical methods can help to check perceptions
- Choose the area(s) where you would like to drill down into the data based on the questions that arise from discussion
 - For example, you may want to look at all student work where two raters disagreed in their assessment – do these examples have anything in common?

Remember your overarching goal

The end goal of this process is an evaluation of how your curriculum is doing in this specific area:

- What you think you are teaching them?
- Are students learning or doing what you think they are?
- What you want to be doing (if it is not what you are doing now)

If there is a need for action based on your answers to these questions, put forward actionable items/suggested changes soon after the rating day.

Closing the loop on assessing an outcome

- Create clear plans and timelines for implementing changes informed by assessment
- Publicize changes made as a result of this process; make it visible to make it meaningful
- Direct assessment will often demonstrate good news as well – be sure to give good news "air time" as well!



Questions?

J. Dickinson: jadickin@uvm.edu