

Tim Burrows, Ph.D.

Assistant Director of Assessment Accreditation

# **Effective Assessment of** Student Work and Learning



Part 1

# IT STARTS WITH THE OUTCOMES



### What Makes A Good Outcome?

Student-centered

Faculty/staff should collaboratively author and collectively accept

Clear and concise

Observable & Measurable

Use action verbs

Manageable number

Tied to core curricular and co-curricular mission/goals/values

Consider professional organizations' expectations (as appropriate)

(Realistically) Aspirational/Developmental (at the right level for your students)

Meaningful



### If Learning Outcomes Were Math...

#### Basic formula:

```
Students + will (or will be able to) + action verb

(target audience) (future tense) (measurable behavior)

+ description with measure/target = Learning Outcome!

(description of what students will know or be able to do)
```

#### Example:

```
Students + will (or will be able to) + action verb

(Econ 450 Students (will be able to) (successfully model)

+ description with measure/target = Learning Outcome!

(growth patterns of a business using linear data as evident by scoring a 70% on Test 5.)
```



# Adding To The Equation

Outcomes should include:

Degree of achievement

Criteria

Target for success



### Success

- The target guides your action plan and informs you on how to change current practices for an effective outcome.
- The target allows you to look and answer with "yes" or "no" precision on whether the outcome is met.
- The target also guide the measure(s) you decide to use.
- Targets and measures can <u>always</u> be changed.



Part 2

#### **CONSIDERING A MEASURE**



# What Should You Consider When Choosing An Assessment Measure?

- Assessment measure is compatible with the outcome
- The measure selected should provide reasonably accurate, useful information
- The measure should yield results specific enough to know where improvements can be made
- Assessment measure matches the cognitive level of the outcome (for student learning outcomes)





# When Selecting Your Measure What Should You Ask?

- Is the measure a reasonable indicator for the cognitive level specified in the student learning outcome?
- Would this assessment method assist the program in other ways (meeting accreditation standards, provide feedback to students, etc.)?
- Will the results of the assessment produce data that are trustworthy and understandable?
- Is the development/preparation time involved in using this measure reasonable?



Part 3

### **TYPES OF MEASURES**



### **Direct Measures**

- Direct measures are tangible, visible, and observable.
  - Allow someone to directly observe the student learning, usually via student work embedded in a course
  - Show a demonstration of a students' knowledge or skill
  - Indicate a service or activity implemented by the program





## **Examples Of Direct Measures**

- Student artifacts (ex. capstone projects, portfolios, presentations, case studies, etc.) examined by learning outcome and scored with a rubric
- Externally reviewed exhibitions, performances, or projects scored by a set standard such as an exam or rubric
- External evaluation of performance during internships based on outcomes.
- Commercially-developed tests, locally-developed tests, national licensure exams or professional exams
  - Make sure any external measure is reviewed for alignment with your learning outcomes.



### Indirect Measures

- An indirect measure is subjective and not directly observable.
  - Asks students to reflect on their learning or abilities but does not provide direct evidence of the learning

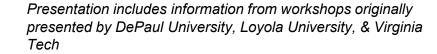
Infers student knowledge



# Examples Of Indirect Measures

- Survey research: National or local instruments
  - National Survey of Student Engagement (NSSE)
  - Faculty surveys
  - Course evaluations
- Employer satisfaction studies and advisory boards
- Exit interviews and student focus groups
- Self-assessments
- Peer ratings







## Combining Measures

- For each student learning outcome the program should (but not always) have a combination of both direct and indirect indicators of student learning.
- Multiple measures (data points) will give you a more accurate understanding of your program.



### Conclusion

 Have quality outcomes that are measureable and meaningful.

- Provide a target and level of success.
- Select and align the appropriate measure(s) to the outcome.

Any questions?



### Resources

- List of Assessment Conferences. <a href="http://www.assessmentconferences.com/">http://www.assessmentconferences.com/</a>
- Indiana University and Purdue University Assessment Institute. http://assessmentinstitute.iupui.edu/
- Association of Assessment of Learning in Higher Education. <a href="http://www.aalhe.org/resource-room/">http://www.aalhe.org/resource-room/</a>
- Assessment List serve: <a href="http://lsv.uky.edu/archives/assess.html">http://lsv.uky.edu/archives/assess.html</a>
- Online and in-person workshops by the following experts (search for a location near you):
  - Marilee Bresciani
  - Trudy Banta
  - George Kuh
  - Linda Suskie

