

# ASSESSMENT METHODS & MEASURES

Office of Assessment & Institutional Effectiveness



# Agenda & Outcomes

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## ■ Agenda

- Review steps in assessment cycle to this point.
- Examine categories of assessment methods
- Choose a method
- Learn tips on selecting a method

## ■ Outcomes

- Express increased confidence in determining the best means of assessing their departmental/program level student learning outcomes.
- Choose an appropriate method to collect data on an outcome.

# Definitions

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- **Outcomes**
  - Desired results expressed in general terms
- **Methods**
  - Tools or instruments used to gauge progress toward achieving outcomes
- **Measures**
  - Intended performance targets expressed in specific terms

# Student Learning Outcomes

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- Describe specific behaviors that a student of your program should demonstrate after completing the program
- Focus on the intended abilities, knowledge, values, and attitudes of the student after completion of the program

# Key Questions

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- What is expected from a graduate of the program?
- What level of service is expected of the office?
- What is expected as the student progresses through the program?
- What does the student know? (**cognitive**)
- What can the student do? (**psychomotor**)
- What does the student care about? (**affective**)

# Categories of Assessment Methods

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- **student learning**
  - **direct assessments** evaluate the competence of students
    - exam scores, rated portfolios
  - **indirect assessments** evaluate the perceived learning
    - student perception, employer perception
- **program or unit processes**
  - **direct assessments** evaluate actual performance
    - customer satisfaction, error rates, time, cost, efficiency, productivity
  - **indirect assessments** evaluate the perceived performance
    - perceived timeliness, perceived capability
- **curriculum**
  - methods used to check alignment of curriculum with outcomes
    - curriculum mapping

# Direct Measures

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“... require a student to represent or demonstrate their learning or produce work so that observers can assess how well students’ work or responses fit institution- or program-level expectations.”

(p. 158, Maki, P.L, 2010)

# Types of Direct Measures

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- Examinations or **specific questions on exams**
- Common questions on exams across multiple course sections
- Research Papers and Projects
- Field Experiences, Lab Reports and Internships
- Pre/Post Comparisons
- Student Portfolio
- Capstone Evaluation
- Course Matrix
- Performance Assessment
- Service-learning



# Indirect Measures

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“ ... such as inventories, surveys, questionnaires, interviews, and focus group meetings, capture students’ perceptions of their learning and the efficacy of educational practices and the educational environment that supports that learning ...”

(p. 158, Maki, P.L, 2010)

# Types of Indirect Measures

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- Alumni, employer, and student surveys
- Exit interviews of graduates and focus groups
- ACT scores
- Interviews
- Retention and transfer studies
- Graduation and transfer rates
- Job placement rates
- Various CATs (Classroom Assessment Techniques)
  - Assessments of course-related knowledge (minute papers, etc.)
  - Process analysis (asks students to keep a log of the steps they take on an assignment)
  - Assessments of students' reactions to various aspects of instruction (class activities, assignments, and materials). Mid-course evaluations are an excellent way to assess student learning and improve classroom teaching.

# Grades Don't Tell the Full Story

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According to Paul Dressel of Michigan State University (1983),  
Grades Are:

“An inadequate report of an inaccurate judgment by a biased and variable judge of the extent to which a student has attained an undefined level of mastery of an unknown proportion of an indefinite material.”

# Describing Assessment Methods

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- **What** are you going to use?
  - presentation, assignment, test, survey, observation, performance rating
- Of and/or by **whom**?
  - student, mentor, focus group, alumni
- Context (e.g., **where or when**)?
  - point-of-service, capstone, throughout the year, end of program
- For what purpose?
  - desired learning **outcome**
- *example: Test the students at the end of the program for their level of knowledge in XYZ*

# Creating Assessment Methods

<b>What</b>	<b>Who</b>	<b>Where/When</b>	<b>Outcomes</b>
Presentation	Student	Point-of-service	Learning
Assignment	Alumni	Capstone	Quality
Portfolio	Customer	Throughout the year	Timeliness
Test or exam	Instructor	End of year	Skills
Project	Mentor	End of program	Satisfaction
Performance	Focus group	In course	Preparation
Survey	Process	On the job	Efficiency
Direct measurement	Employer		
Transcripts			

# Locally Developed Surveys

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- institutional level
  - alumni survey
  - academic advising survey
  - image survey
  - student satisfaction survey
- program or department level
  - advisory board surveys
  - employer surveys
  - customer surveys
  - program-specific surveys
  - graduating senior survey

# Curriculum or Course-based

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- performance-based
  - capstone courses
  - capstone projects
  - case studies
  - classroom assessment
  - course-embedded assignments
  - course-embedded exam questions
  - portfolios
  - reflective essays

# Types of Examinations or Tests

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- standardized exams
  - national test
  - state test
- juried competitions
  - recitals
  - shows or exhibitions
- locally developed exams
  - pre-post tests
  - course-embedded exam questions
  - comprehensive exam
  - qualifying exam



# After Identifying the Potential List of Assessment Methods You Need to ...

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- Develop assessment instruments
  - Surveys
  - Exams
  - Assignments
  - Scoring rubrics
  - Portfolios
- Ideally you want them to be reliable, valid, and cheap approaches
  - Use external sources
  - Seek help from internal sources (e.g. Office of Assessment and Institutional Effectiveness)
  - Do it yourself
    - The instrument may need to be modified based on assessment results

# Tips on Selecting Methods

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- Match assessment method with learning outcome
- The assessment results should be usable
- Results should be easily interpreted and unambiguous
- data should not be directly controllable by the unit or program
- Identify multiple methods for assessing each outcome
  - Direct and indirect methods
  - Qualitative and quantitative
  - Passive or active methods
  - Within different courses
  - Conducted by different groups

# Tips on Selecting Methods

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- Identify subcomponents where other methods may be used that allow deeper analysis
- Use methods that can assess both strengths and weakness of your program/unit
- Capstone or senior projects are ideal for student learning outcomes assessment
- When using surveys, target all stakeholders
- Build on existing data collection
  - Accreditation criteria
  - Program review

# Challenges and Pitfalls

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- one size does not fit all — some methods work well for one program/office but not others
- do not try to do the perfect assessment all at once — take a continuous improvement approach
- allow for ongoing feedback
- match the assessment method to the outcome and not vice-versa

# Final Words

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