Assessment 101

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Agenda:

- Why Assessment is Important
- Academic Program Mission Statement
- Learning Outcome Statement
 - Bloom's Taxonomy
- Assessment Methods
- Criteria
- Assessment Results
- Use of Results for Seeking Improvement
- Evidence of Seeking Improvement
- Assessment Cycle Process
- Activity







Why Assessment is Important

- To improve student learning and teaching
- Design instruction to target the knowledge and skills students should have upon finishing a course or an academic program
- More Than Grades
 - Grades are global evaluations that represent the overall proficiency of a students and do not tell you about student performance on **specific student learning outcome** (Fisher et al., 2019; Stassen et al., 2001)
 - Grades are only the broadest of indicators of achievement or status, and do not provide very meaningful information about students' learning of knowledge or skills, how they have developed, and what may need improving (Fisher et al., 2019; Stassen et al., 2001)

Academic Program Mission Statement

- A clear statement that captures the purpose of the program and the role within the institution
- This sets the direction and alignment back to the institutional core values and goals. Example:
 - The Mathematics Program seeks to develop and train mathematics scholars and practitioners who are able to demonstrate mastery of the fundamental concepts of mathematics through analytical methods and technological tools. Students will acquire the mathematical knowledge and critical thinking skills necessary to be successful in graduate mathematics programs, mathematical science careers or other mathematics-related fields. The program emphasizes both the theoretical foundations and practical applications of mathematics, which provides students with an environment to develop an understanding and appreciation of mathematics as a creative discipline.



Learning Outcome Statement : Bloom's Taxonomy

<u>Definition</u>: A model that classifies learning outcomes/objectives by levels based on complexity and specificity

Levels of Bloom's Taxonomy

- **1. Remembering**: Retrieving, recognizing, and recalling relevant knowledge from long-term memory.
- 2. Understanding: Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.
- **3. Applying:** Carrying out or using a procedure for executing, or implementing.
- **4. Analyzing:** Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing.
- 5. Evaluating: Making judgments based on criteria and standards through checking and critiquing.
- 6. Creating: Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing

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Learning Outcome Statement : Bloom's Taxonomy



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Learning Outcome Statement Cont.

- Examples:
 - "Upon program completion, students will be able to interpret experimental data to draw conclusions about biological processes."
 - *"Students will be able to apply political theories and frameworks to current events and policies."*
 - *"Upon program completion, students will be able to critically evaluate various computer algorithms within specific engineering challenges."*



Assessment Methods

- Refers to a specific approach, technique, or tool used to evaluate or measure an outcome against established criteria or standards
- Two different forms of assessment:
 - Summative assessments are cumulative and often reveal what students have learned at the end of a unit or the end of a course.
 - Final Exams, papers, tests, quizzes
 - **Formative assessment** involves the evaluation of student learning at intermediate points before any summative form. (Daily or ongoing)
 - Short, low-stakes quizzes
 - Journals or Logs
 - Written Feedback
- Example: "Students in POL 400 will be assessed through a <u>final presentation</u>, which integrates key concepts, research skills, and critical thinking/analysis developed throughout the program. The final presentation will be evaluated using the AAC&U VALUE Rubric for Oral Communication, which assesses criteria such as organization, content development, language use, and delivery."

Criteria

- A set of standards or benchmarks that serve as a guide for determining whether specific requirements, outcomes, or expectations have been met
- Tips
 - Make sure the criteria set is realistic!
 - Do NOT count students out from the beginning!
 - *"70% of students will score 80% or better on the Final Presentation using the AAC&U Value Rubric."*
 - *"Students will score 80% or better on the Final Presentation using the AAC&U Value Rubric."*



Assessment Results

- What were the findings?
 - Analyze and summarize results.
 - Does the data fail to meet, meet, or exceed the criterion for success?

Advanced Generalist Year Course/Assignments	Competency	Dimensions	Assignment Grade Average	Program % Met Benchmark
SWK 708 Advanced Practice I Social Work with Individuals and Families:	2, 6	K, V, S, C&AP	93%	100%
Cross Cultural Interview Case Study Paper and Presentation				

2023-2024 Advanced Generalist Program Assignment Assessment Data

The chart above reflects the **Advanced Generalist** students' scores on the identified Program Assignment Assessment for the academic year. The results reveal that students' average score on the **Cultural Competence** assignment was greater than the 80% benchmark, with the average being 93%. Additionally, the percentage of students meeting the 80% benchmark on the assignment was exceeded with 100% of students scoring 80% or greater.



Use of Results for Seeking Improvement

- Analyze the assessment results
 - How will the program use the results to improve student learning?
 - Data could show:
 - Students struggling with specific skills or concepts → Faculty will update or expand course content
 - Students have low scores \rightarrow Faculty will implement tutoring services
 - Students struggle with integrated knowledge across courses → Faculty will revise capstone
 - Students struggling in advanced courses → Program Faculty introduce or revise prerequisite courses



Use of Results for Seeking Improvement

Example:

Analyzing the assessment data for this academic year and for the two previous academic years, it appears that the course posing the most significant challenge in consistently meeting our goal is Calculus I. This is not completely unexpected because this course presents a significant increase in the level of mathematical rigor and abstraction compared to its prerequisite courses, and it is very difficult for some students to adjust to it, especially those without a strong mathematical foundation and/or preparation. <u>Some intervention strategies can be implemented in an attempt to direct these students to the extra resources they need.</u>

The Mathematics Faculty **will investigate** how to best implement the following resources into Calculus I to help students better develop the skills necessary to be successful: (List resources)



Evidence of Seeking Improvement

- What will the program implement to enhance student learning
- Why does this section matter?
 - To show <u>continuous improvement</u>
 - Curriculum Revisions
 - Tutoring or supplemental instruction for challenging courses
 - Changes in Teaching Strategies
 - New Assessment Methods



Activity-Scenario

<u>Learning Outcome</u>: Graduates will be able to effectively communicate their findings and business recommendations through professional presentations.

- Tasks
 - Select an assessment method(s) to evaluate the skills and criteria for the selected assessment method(s).
 - Discuss ways the results or feedback from the capstone could help improve future capstones or curriculum for students. (Use of Results for Seeking Improvement)
 - Discuss things that will be implemented to improve future capstones and/or curriculum. (Evidence of Seeking Improvement)

<u>Results</u>

- Clarity and Organization: 80% (16 out of 20) of students delivered clear and well-organized presentations, while 20% (4 students) had challenges with logical flow and transitions between sections.
- Content Development: 75% (15 out of 20 students) met or exceeded expectations, showing strong support for their recommendations, but 25% (5 out of 20 students) had difficulty linking data to conclusions, making their recommendations less convincing.
- Professional Delivery: 85% (17 out of 20 students) received positive ratings on delivery style and professionalism, though some students struggled with audience engagement and maintaining confidence during Q&A sessions.
- Visual Aids and Support Materials: 70% (14 out of 20 students) used visual aids effectively, while 30% (6 out of 20 students) had overly complex or poorly designed slides, which detracted from the overall clarity.

Overall, 85% (17 out of the 20 students) met or exceeded this learning outcome on professional presentation.

Assessment Cycle Process



Resources

- Link: <u>Bloom's Taxonomy- Vanderbilt University</u>
- Link: <u>Bloom's Taxonomy- Cornell University</u>
- Link: Learning Objective Maker (easygenerator.com)
- Link: <u>Learning Outcomes Generator | Office of Student Persistence Research | University of</u> <u>Nevada, Reno (unr.edu)</u>



References

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Workshop Feedback





Thank You!

