Office of Institutional Effectiveness and Assessment

Workshop Title: Using Results to Improve

Suggested Citation:
Using Results to Improve
Let’s jump in
Assessment Expectations

1. Identify expected outcomes for students learning
2. Measure the extent to which student attain those outcomes
3. Use the data for improvement (actions)
Goals
MYTH - The purpose of assessment is to measure
The purpose of assessment is not to measure.

THE PURPOSE OF ASSESSMENT IS TO IMPROVE.
The purpose of assessment is not to measure.

THE PURPOSE OF ASSESSMENT IS TO IMPROVE

GOAL 1 - Identify an area of student learning that your program wants to improve.
MYTH - Data should drive decision making
Data and faculty should drive decision making.

Change is about people and we should collect data to inform faculty questions.
Data and faculty should drive decision making.

Change is about people and we should collect data to inform faculty questions.

Goal 2 - Develop or revise outcomes, measures, and targets to assess student learning in this area.
MYTH - Assessment can be completed by one
Assessment...
It takes a village

DATA COLLECTION, ANALYSIS, DISCUSSION, AND ACTION MUST TAKE PLACE AT THE FACULTY AND COURSE LEVEL
Assessment...
It takes a village

Data collection, analysis, discussion, and action must take place at the faculty and course level.

GOAL 3 - Outline a plan to collect, discuss, and act on information to improve student learning.
We are going to be using a worksheet throughout this workshop to give you an opportunity to write up how your program is using results to improve.

Let’s jump into the worksheet.
PART 1
What actions has your program taken to improve?
OR What do your faculty want to improve?
What actions has your program taken to improve?

1. Created a lab course and recitation section
2. Created an alumni student mentorship program
What do your faculty want to improve?

1. Strengthen the quality of writing by having faculty participate in IDW workshops and revise writing assignments

2. Strengthen the quality of writing at graduate checkpoints by providing more feedback and support
Examples

**Course related processes**
- Add additional assignments to increase learning opportunities
- Develop and use a rubric to create more consistency in student evaluations
- Provide students multiple and varied ways of learning critical concepts
- Explore active learning strategies and other teaching methods
- Explore other ways of assessing outcomes

**Curriculum and program processes**
- Address coherence of the curriculum by eliminating redundancies and identifying gaps in learning or opportunities to practice that learning
- Map out how students will develop the knowledge and skills needed for demonstrating a learning outcome across the curriculum
- Revise program outcomes to include higher-order thinking and greater intellectual rigor

**Academic processes**
- Revise advising processes
- Modify program requirements to support program goals and expected outcomes
- Revise admissions criteria

**Resource-related actions**
- Conduct a retreat or workshop for faculty and staff to learn how to integrate experiences that contribute to improved student learning
- Improve communication with adjunct faculty about program outcomes and course outcomes, provide professional development opportunities for these faculty
- Create or hire a course coordinator to facilitate more consistency in the content and skills taught in large multi-section courses
PART 1
What actions has your program taken to improve? OR What do your faculty want to improve?

Completed or Proposed Action Plans
PART 2
What information prompted this action or need for improvement?
What information prompted this action?

1. Created a lab course and recitation section → Based on final lab report in capstone course

1. Created an alumni student mentorship program → Based on graduate student survey and PFP student survey
What information prompted the need for improvements?

1. Strengthen the quality of writing by having faculty participate in IDW workshops and revise writing assignments - Based on rubric scores for research paper in capstone

2. Strengthen the quality of writing at graduate checkpoints by providing more feedback and support - Based on dissertation rubric, faculty feedback
Results + Faculty feedback

All students met or exceeded the [existing target/measure/outcome]; while students were able to meet the objective, process observations and feedback from instructors indicate they continue to struggle [describe areas of student weakness related to the overarching outcome].
Results + Faculty feedback

All students met or exceeded the target of scoring 80 or higher on the research proposal in ODUU 835 & the Dissertation Research proposal in ODUU 898; while students were able to meet the target for Research and Scholarship, process observation and feedback from instructor indicate they continue to struggle developing research questions that lead to adoption of aligned research methodologies, and then are able to follow-up with sound and complete analysis.
PART 2
What information prompted this action or need for improvement?

Measures
PART 3
As a result of this action, what will improve?
As a result of this completed action, what will improve?

1. Created a lab course and recitation section -> Based on final lab report in capstone course -> to improve students’ quantitative analysis skills

2. Created an alumni student mentorship program -> Based on graduate student survey and PFP student survey -> to improve students’ career readiness and preparation/program satisfaction
As a result of the proposed action, what will improve?

1. Strengthen the quality of writing by having faculty participate in IDW workshops and revise writing assignments—Based on rubric scores for research paper in capstone—to improve students’ writing skills.

2. Strengthen the quality of writing at graduate checkpoints by providing more feedback and support—Based on dissertation rubric, faculty feedback—to improve students’ written communication skills.
Part 3 - As a result of this action, what will improve?

Student Learning Outcomes or Program Outcomes
PART 4
How can we monitor the impact of our actions?
How can we monitor the impact of our actions?

1. Created a lab course and recitation section \( \rightarrow \) Based on final lab report in capstone course \( \rightarrow \) to improve students’ quantitative analysis skills \( \rightarrow \) monitor impact through final lab report and assignment in lab or recitation.

2. Created an alumni student mentorship program \( \rightarrow \) Based on graduate student survey and PFP student survey \( \rightarrow \) to improve students’ career readiness and preparation/program satisfaction \( \rightarrow \) monitor impact through mentorship numbers and survey responses.
How can we monitor the impact of our actions?

1. Strengthen the quality of writing by having faculty participate in IDW workshops and revise writing assignments -> Based on rubric scores for research paper in capstone -> to improve students’ writing skills -> monitor impact through research paper rubric scores, faculty participation, and summary of changes.

2. Strengthen the quality of writing at graduate checkpoints by providing more feedback and support -> Based on dissertation rubric, faculty feedback -> to improve students’ written communication skills -> monitor impact through writing proficiency evaluation, proposal rubric, advisor survey, and dissertation rubric.
Putting it all together
Template - The Write Up

Last year, [part 2 - describe data or circumstance that prompted action and part 3 - specify student learning outcome].

In response the program made the following modifications – [part 1 - list completed action plans or modifications to the program].

This year, we can see that results are [part 4 - compare results before and after modification] OR This year, we can see that the impact of these modifications through [part 4 - describe new measure].
Quantitative Analysis

Over the past few years, the program saw poor performance on the final lab report in the capstone course. Specifically in the area of quantitative analysis.

In response the program made the following modifications as recommended by the Undergraduate Curriculum Committee and implemented by faculty: (1) created a 1 credit laboratory class to be taken in conjunction with an existing 300 level course and (2) increased the number of credits for ODUU 310 from 3 to 4 to include a recitation section to give more opportunities for students to work on quantitative problems.

We will see the impact of these modifications in the final lab report for the capstone course in 2 years. In the meantime, we will monitor impact by collecting grades and rubrics scores from a major assignment in the added lab and ODUU 310 course.
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Putting it all together with met targets and faculty feedback

All students met or exceeded the [existing target/measure/outcome]; while students were able to meet the objective, process observations and feedback from instructors indicate they continue to struggle [describe areas of student weakness related to the overarching outcome].
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All students met or exceeded the target of scoring 80 or higher on the research proposal in ODUU 835 & the Dissertation Research proposal in ODUU 898; while students were able to meet the target for Research and Scholarship, process observation and feedback from instructor indicate they continue to struggle developing research questions that lead to adoption of aligned research methodologies, and then are able to follow-up with sound and complete analysis.

We are re-aligning our research sequence so that students have more standardized exposure to these issues between ODUU 835 and ODUU 898, including offering ODUU 835 earlier to act as an advanced organizer for student learning in research. We anticipate that students will have less difficulty by the time they come to ODUU 898.

We will be able to determine the impact of this modification in 2 years and reassess in ODUU 835 and ODUU 898. We will explore creating a rubric to better assess this outcome at these milestones.
Putting it all together with met targets and faculty feedback

[part 2] All students met or exceeded the target of scoring 80 or higher on the research proposal in ODUU 835 & the Dissertation Research proposal in ODUU 898; while students were able to meet the target for [part 3] Research and Scholarship, [part 2] process observation and feedback from instructor indicate they continue to struggle developing research questions that lead to adoption of aligned research methodologies, and then are able to follow-up with sound and complete analysis.

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Student Learning Outcome

Students will be able to [1. action verb] [2. specific knowledge, skill, or ability] to [person, place, or thing].

https://odu.edu/content/dam/odu/offices/assessment/docs/student-learning-outcomes.pdf

Students will be able to conduct research using rigorous scientific methods, procedures, and practices to contribute to the scientific, psychological, or professional knowledge base.
Measures should address the following questions:
1. Where and how are students demonstrating the learning outcome?
2. What is the purpose of the measure and how does it relate to the outcome?
3. How is the measure of student learning evaluated (rubric, faculty panel, answer key, survey, etc.)?
4. What scale, criteria, or standard is used to evaluate the student learning outcome?
5. How is this consistently measured across administrations?
6. What makes this measure trustworthy and useful?
Example 1: Measure - Research project rubric, Outcome – Research methodology
In [1] ODUU 400, students should complete a research project on a topic of their choosing. The purpose of the assignment is to have students [2] ask a research questions, provide a rationale for an appropriate methodology, conduct or outline that methodology, and then provide a list of possible recommendations. Students are asked to demonstrate advanced research methodology skills in this assignment.

Research projects are evaluated by [3] a rubric, with three rubric areas directly evaluating research methodology (research questions, methodology selection, methodology skills). Rubric sections are scored on a scale of [4] 1 - 4, with 4 for Exceeds Standard, 3 for Meets Standard, 2 for Approaches Standard, and 1 for Needs Attention.

The program addresses the consistent application of the rubric across administrations with [5] the use of a shared program rubric for the final project. All faculty members teaching this course use the program rubric. This measure and the data are considered to be trustworthy and useful because [6] the rubric was collaboratively developed by program faculty and informed by educational best practices in our field. Additionally, all senior students are required to take ODUU 400 and the research project represents a large portion of the final grade. For these reasons, the program believes that this measure will provide useful data for improving student learning.
Target

[2. target percentage of students to achieve the standard] of the students will
[1. standard of performance] on the
[rubric, test, survey, etc.].

https://www.odu.edu/content/dam/odu/offices/assessment/docs/targets.pdf

80% of the students will pass the research methods essay question (pass all items on the scoring rubric) on the first attempt.
Action Plan & Interpretation of Results

This is what we already worked on in Part 1, 2, 3, 4
Next steps?
What part of your improvement story is missing?
How do you plan to collect, analyze, discuss, and take action with your colleagues?
3 Tips to help you collect, analyze, and act on data with colleagues

#1 Discuss data and *process feedback* with your colleagues. -> This is how we can get to the root of the issues that may not be apparent from the data.

#2 Create or integrate assessment and improvement into existing processes (e.g. Curriculum committees, faculty meetings, targeted committees of faculty teaching specific courses that relate to a specific outcome). Multiple people should be leading these efforts.

#3 This will save faculty time and leverage best teaching/advising practices in the program.