Assessment Planning

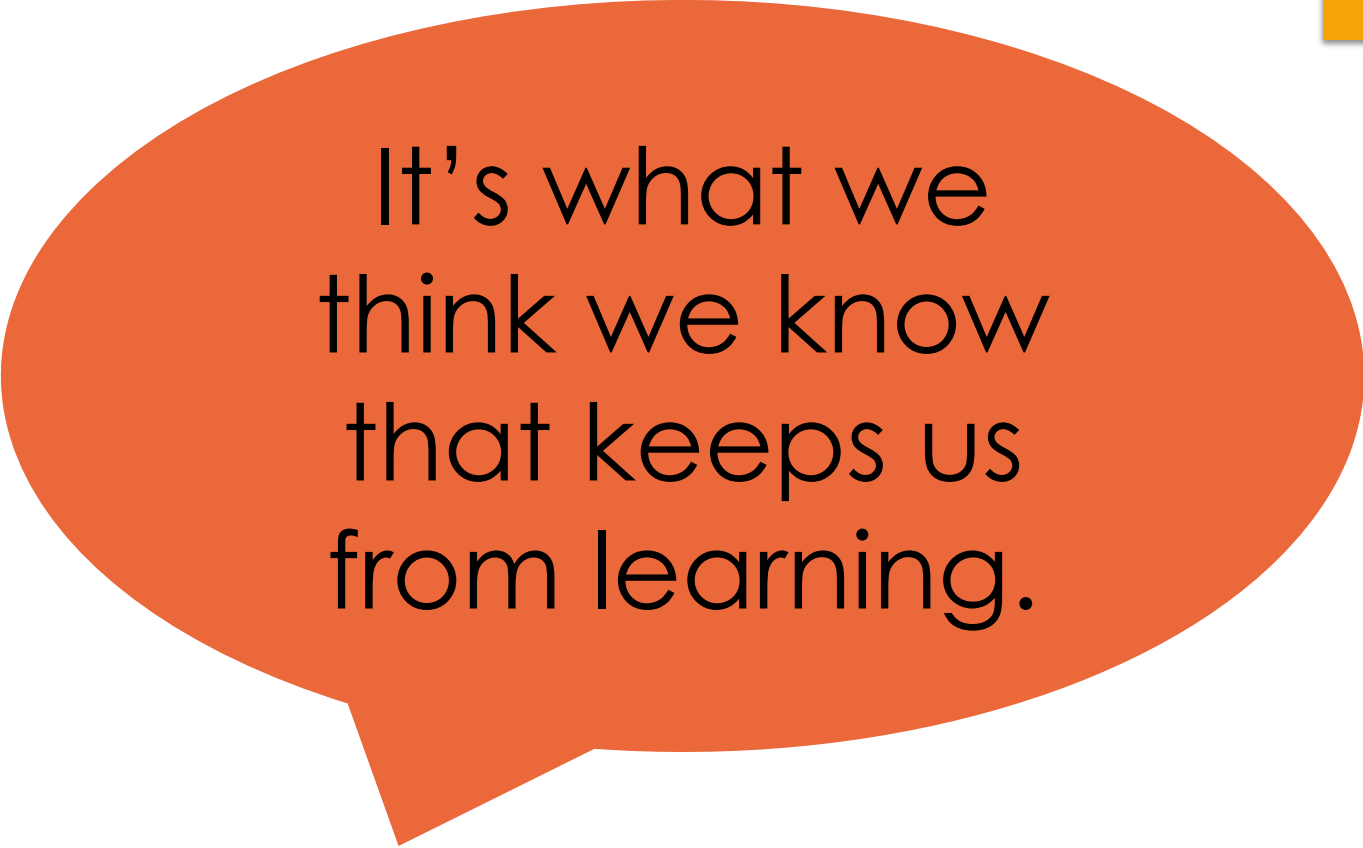## CREATING A MANAGEABLE, EFFECTIVE, AND SUSTAINABLE PROGRAM ASSESSMENT PLAN

Institutional Effectiveness
Office of Analytics and Institutional Effectiveness

Overview of the Workshop

- Introduction to assessment

- Mission statements

- Student learning and program outcomes

- Assessment measures: Direct and indirect assessments

- Mapping techniques

- Target choice and design

- Findings

- Creating action plans and closing the loop

- Reporting

- Summary and reflection

Program Assessment Planning

INTRODUCTION TO ASSESSMENT

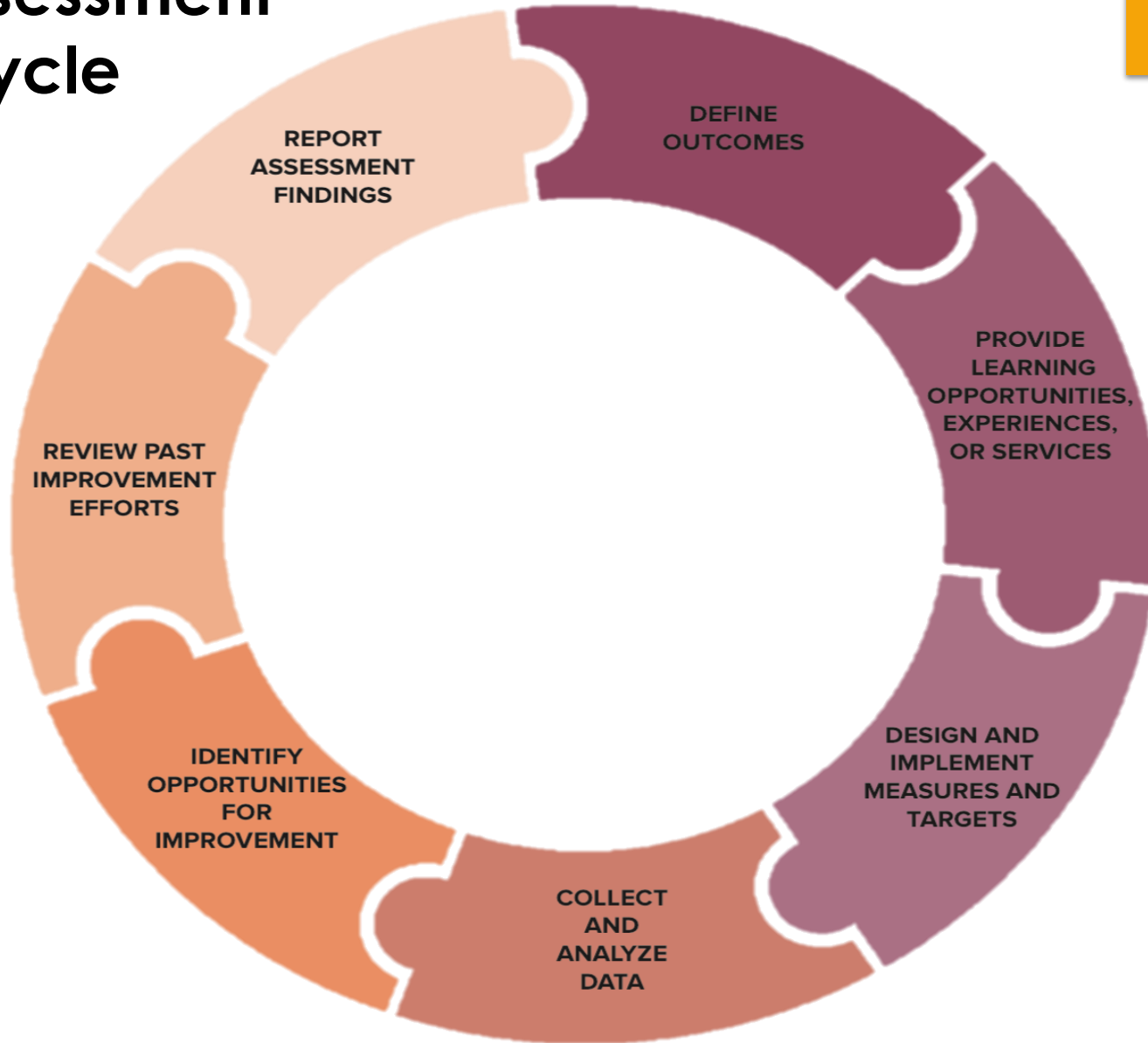It's what we think we know that keeps us from learning.

Claude Bernard

What is assessment?

▶ Suskie (2009, p. 4) defined assessment as an ongoing four-step process:

   ▶ "establishing clear, measurable expected outcomes of student learning;

   ▶ ensuring that students have sufficient opportunities to achieve those outcomes;

   ▶ systematically gathering, analyzing, and interpreting evidence to determine how well student learning matches our expectations; and

   ▶ using the resulting information to understand and improve student learning."

Suskie, L. (2009). Assessing student learning: A common sense guide (2nd ed.). San Francisco: Jossey-Bass.

The Assessment Cycle

DEFINE OUTCOMES

PROVIDE LEARNING OPPORTUNITIES, EXPERIENCES, OR SERVICES

DESIGN AND IMPLEMENT MEASURES AND TARGETS

COLLECT AND ANALYZE DATA

IDENTIFY OPPORTUNITIES FOR IMPROVEMENT

REVIEW PAST IMPROVEMENT EFFORTS

REPORT ASSESSMENT FINDINGS

Why should programs do assessment?

▶ Identify a program's strengths and areas for improvement

▶ Provide student learning evidence for stakeholders including discipline-specific and regional accreditors

▶ Highlight program contributions to stakeholders

▶ Encourage collaboration among program faculty

▶ Create a program vision and ideal

▶ Encourage curriculum review

BUT the PRIMARY REASON is to improve the teaching and learning process

What are the SACSCOC assessment requirements?

▶ The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) Principles of Accreditation Section 8: Student Achievement:

▶ "8.2. The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of seeking improvement based on analysis of the results in the areas below:

  ▶ 8.2.a. student learning outcomes for each of its educational programs.

  ▶ 8.2.b. student learning outcomes for collegiate-level general education competencies of its undergraduate degree programs.

  ▶ 8.2.c. academic and student services that support student success." (p. 20)

Southern Association of Colleges and Schools Commission on Colleges. (2018). The principles of accreditation: Foundations for quality enhancement. The 2018 Edition. https://sacscoc.org/app/uploads/2019/08/2018PrinciplesOfAcreditation.pdf

What does SACSCOC consider when examining this standard?

▶ "Are expected student learning outcomes clearly defined in measurable terms for each educational program?

▶ What types of assessment activities occur to determine whether learning outcomes are met?

▶ How are results from periodic assessment activities analyzed?

▶ How has the institution's use of assessment results improved educational programs?" (pp. 69-70)

Southern Association of Colleges and Schools Commission on Colleges. (2018). Resource manual for the principles of accreditation: Foundations for quality enhancement. Retrieved from: https://sacscoc.org/app/uploads/2019/08/2018-POA-Resource-Manual.pdf

Program Assessment Planning

MISSION STATEMENTS AND STUDENT LEARNING AND PROGRAM OUTCOMES

What is a mission statement?

▶ A Program Mission Statement is:

   ▶ A concise statement about the values and purpose of the program

   ▶ The foundation a program uses to help define its program goals and outcomes

   ▶ Consistent with institutional and college mission

   ▶ A broad statement on what the program does and for whom and what it is trying to achieve with the curriculum

   ▶ Program-specific and designed by faculty

What should be in a program mission statement?

► Components of a Program Mission Statement:

   ► Primary program functions or activities

   ► Purpose of the program

   ► Stakeholders

► Structure of a Program Mission Statement:

► "The mission of (name of your program or unit) is to (your primary purpose) by providing (your primary functions or activities) to (your stakeholders)." Additional clarifying statements.

► Note: The order of the mission statement components may vary from the above structure.

Program Assessment Planning

STUDENT LEARNING AND PROGRAM OUTCOMES

Why do programs need student learning and program outcomes?

▶ Help clarify / reinforce the mission of the program

▶ Make informed evidence-based changes to the curriculum, program, or student learning

  ▶ Focus student learning as core to the educational mission

  ▶ Engage faculty in collective ownership of the curriculum, the process of institutional effectiveness, and the use of evidence (not anecdotes) to improve student learning

  ▶ Meet SACSCOC or discipline-specific accreditation standards

  ▶ Describe the program to stakeholders (e.g., interested students, accreditation agencies, graduate schools, etc.)

  ▶ Inform students as to what they are expected to achieve

What is the difference between student learning and program outcomes?

	Program outcomes	Student learning outcomes
Definition	Reflect the services the program provides OR outline specific student achievement areas of the program (e.g., retention, graduation rates, etc.).	Reflect the knowledge, skills, abilities, or competencies that students are expected to acquire as a result of being in the program.
Example	Full-time students who declare XYZ as a major will complete the program in 4 years.	Graduates should be able to explain how past events in the area of XYZ impact society now.

How many outcomes should you have and how often should you measure them?

- Programs should have a mix of student learning and program outcomes
  - 5 to 8 student learning outcomes
  - 2 to 3 program outcomes
  - Programs with discipline-specific accreditation requirements (e.g., ABET, AACSB, etc.) might have more outcomes
- Each program should measure at least 2-3 student learning outcomes and 1-2 program outcomes every year
- All outcomes should be measured at least twice in five years

What makes a good program outcome?

- A program outcome:

  - Defines program metrics or services

  - Focuses on what your program wants to accomplish or a service it provides

  - Specifies program student achievement areas

- A good program outcome:

  - Is a specific action, behavior, or achievement

  - Can be validly and reliably measured

  - Is related to the program's mission and can be achieved or improved upon if not achieved

  - Is meaningful to the program

What are examples of good program outcomes?

▶ Examples of measurable, specific, and feasible program outcomes:

  ▶ The MA program will develop new courses to meet discipline-specific accreditation requirements

  ▶ The department of XYZ will increase its graduation rates

  ▶ Within two years of graduating from the program, students will obtain licensure

What makes a good student learning outcome?

- A student learning outcome:
  - Is a specific behavior or knowledge that students are expected to be able to demonstrate as a result of the program
  - Focuses on what you want students to know or be able to do
  - Completes the statement: At the end of the program, students will be able to…
- A good learning outcome:
  - Addresses an observable, attainable behavior (not a "bundled" statement)
  - Is narrowly focused and Is measurable
  - Is stated at the appropriate cognitive level for the degree or expectations of the program
  - Bloom's taxonomy: https://www.odu.edu/content/dam/odu/col-dept/teaching-learning/docs/blooms-taxonomy-handout.pdf

What are examples of good student learning outcomes?

- Examples of measurable, observable student learning outcomes:

  - Students will be able to explain the XYZ theory

  - Students will be able to describe the style and form used in paintings by Monet

  - Students will be able to evaluate prominent ethical dilemmas of research in the field

What words are not measurable?

▶ When choosing an action verb, ask yourself how a student would provide evidence of the concept.

▶ Appreciate: Students will be able to appreciate contemporary dance.

  ▶ What does this mean? How will you know if they "appreciate" the dance?

  ▶ Better: Students will be able to evaluate the style and form used in contemporary dance.

▶ Comprehend: Students will comprehend the importance of major philosophical figures.

  ▶ Better: Students will be able to describe the importance of major philosophical figures.

▶ Learn: Students will learn the techniques fundamental to the practice of forensics.

  ▶ Better: Students will be able to effectively apply the fundamental forensic techniques.

What words are not measurable?

▶ Understand: Students will understand the theory of evolution.

    ▶ Better: Students will be able to explain the theory of evolution.

▶ Know: Students will know the impact of human activities on the environment.

    ▶ Better: Students will be able to analyze the impact of human activities on the environment.

▶ Listen: Students will be able to critically listen to a composition by Johann Sebastian Bach.

    ▶ Better: Students will be able to interpret the common elements and organizational patterns of a Bach composition.

▶ Remember: Just because an outcome is measurable it does not mean it is reasonable to assess.

How do you differentiate between degree programs?

- Departments with several degree programs (e.g., B.S., M.S., and Ph.D., M.S. and M.B.A., Ed.D. and Ph.D.) should develop outcomes that distinguish one program from another

- A program might have 3 or 4 outcomes for both M.S. and Ph.D. students but would have a few specific to each degree

- Example: M.S. and Ph.D. program in Clinical Psychology

  - M.S. outcome #1 and Ph.D. outcome #1: Apply psychological theories and scientific knowledge of psychopathology in case conceptualization.

  - M.S. outcome #2 and Ph.D. outcome #2: Discuss the role of the therapeutic alliance in psychological treatment.

  - M.S outcome #3: Discuss the role of individual differences, culture, and context in the conduct of psychological research.

  - Ph.D. outcome #3: Effectively perform clinical interviews for assessment and diagnosis.t would have a few specific to each degree level

  Outcomes taken from: http://gsep.pepperdine.edu/doctorate-clinical-psychology/learning-outcomes/

Program Assessment Planning

ASSESSMENT MEASURES

What should you consider when choosing an assessment measure?

- The assessment measure selected should:
  - Be compatible with the outcome
  - Provide reasonably accurate, useful information
  - Yield results specific enough to know where improvements can be made
  - Match the cognitive level of the outcome (for student learning outcomes)

What should you consider when choosing an assessment measure?

▶ Consider what is already being done:

- ▶ Survey faculty on what activities are being done in their courses
- ▶ Find out what is being done locally or institution-wide that might map to your outcomes
- ▶ Utilize one activity for several outcomes where possible
- ▶ Use capstone points in the curriculum

What is a direct measure?

▶ Direct measures:

  ▶ Tangible, visible, and observable

  ▶ Allow someone to directly observe the student learning, usually via student work embedded in a course

  ▶ Demonstrate student's knowledge or skill

  ▶ Indicate a service or activity implemented by the program (program outcomes only)

▶ For each student learning outcome the program should have at least one direct measure of student learning.

What are examples of direct measures?

- Student learning outcomes:
  - Student artifacts (e.g. capstone projects, portfolios, presentations, case studies, etc.) examined by learning outcome and scored with a rubric
  - Externally reviewed exhibitions, performances, or projects scored by learning outcome
  - External evaluation of performance during internships based on outcomes
  - Commercially-developed tests, locally-developed tests, national licensure exams or professional exams if examined by learning outcome
- Program outcomes:
  - Number of students meeting certain criteria (e.g., % attending graduate school) or number of projects or initiatives implemented (e.g., courses developed, grants obtained, etc.)
  - Enrollment numbers / number of majors

What is an indirect measure?

▶ An indirect measure is subjective and not directly observable. It:

   ▶ Asks students to reflect on their learning or abilities but does not provide direct evidence of the learning

   ▶ Infers student knowledge

▶ For each student learning outcome the program can have a combination of both direct and indirect indicators of student learning.

What are some examples of indirect measures?

- Survey research: National or local instruments
  - Exit surveys / senior surveys, alumni or employer surveys
  - National Survey of Student Engagement (NSSE), The College Senior Survey (CSS), etc.
  - Faculty surveys
  - Course evaluations
- Employer satisfaction studies and advisory boards
- Exit interviews and student focus groups
- Self-assessments
- Peer ratings

When selecting your measure what should your program 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 results produce trustworthy and understandable data?

▶ Is the development/preparation time involved in using this measure reasonable?

When selecting your measure what should your program ask?

▶ Does the measure match the cognitive level specified in your outcome?

  ▶ Example:

    ▶ "Identify" implies that the student can select the concept or topic as in the case of multiple choice questions.

    ▶ "Explain" implies that the student should be able to articulate an explanation of a concept like in the case of an essay.

▶ Is the measure obtaining the correct information?

  ▶ Example: For students will be able to effectively communicate, a direct measure would not be just to give a presentation.

How many measures should programs have?

- Academic degree programs and certificate programs should:
  - Have at least one direct measure for each student learning outcome and program outcome
  - Use several different measures throughout their assessment plan
  - Use multiple measures (including indirect measures) for outcomes when feasible & meaningful
  - Report measures for all outcomes annually, even if that outcome was not measured during that cycle

Program Assessment Planning

MAPPING TECHNIQUES

What is mapping?

We have combined three maps into one comprehensive template.

- Curriculum Map
  - Allows programs to align student learning outcomes with courses
  - Exposes gaps in the curriculum
- Assessment Methodology Map
  - Helps programs ensure they have at least one direct measure for each learning outcome
  - Determine if you can cover several outcomes with one method
- Assessment Timeline Map
  - Helps programs plan their assessment needs for several years
  - Creates a collective vision of assessments being done in a program

Student Learning Outcome		BIOL 1006	BIOL 2010	BIOL 3018	BIOL 3025	BIOL 4030	BIOL 4064	Internship
SLO #1: Articulate the principles of taxonomy.	Curriculum	I	R, A		R			
	Methodology		Specific items on taxonomy exam- collected by instructor					
	Assessment Timing		2021-2022; 2023-2024					
SLO #2: Explain the core biological concepts related to evolution and principles of genetics.	Curriculum	I	I			R, A		R
	Methodology					Capstone project and standardized test- collected by instructor		
	Assessment Timing					2020-2021; 2022-2023; 2024-2025		
SLO #3: Critically analyze biological research and findings.	Curriculum		I	I	R		R, A	
	Methodology						Capstone project and standardized test- collected by instructor	
	Assessment Timing						2021-2022; 2023-2024	
SLO #4: Demonstrate effective written comm-unication in the field of biological sciences.	Curriculum		I	R	R, A			R
	Methodology				Final project paper- collected by instructor			
	Assessment Timing				2020-2021; 2022-2023; 2024-2025			

Program Assessment Planning

TARGETS, FINDINGS, ACTION PLANNING, CLOSING THE LOOP, AND REPORTING

What is an achievement target?

- An achievement target:
  - Defines the program's achievement expectations for each outcome-method pair
  - Is usually expressed as percentages or numbers expected
  - Is achievable but rigorous
  - Is realistic for the program level
- Examples:
  - Student learning outcome: 80% of students will meet or exceed expectations on the rubric items for this outcome.
  - Program outcome: 80% of students who declare XYZ as a major will complete the program in 4 years.

How should programs present their findings?

- Findings presented should be:
  - Directly related to the outcome-measure pair (usually expressed as a percentage)
  - Presented on the same scale as the target
  - Completed at the end of the assessment period
  - Specific enough to examine all components of the learning outcome
- Examples:
  - Student learning outcome: 75% of the students met or exceeded expectations on the rubric items for this outcome
  - Program outcome: 65% of students who declared XYZ as a major completed the program

What makes a good action plan?

▶ Action plans:

> ▶ Describe the changes a program intends to implement to address curriculum or program deficiencies identified as a result of the assessment
>
> ▶ Describe specific programmatic changes with timelines if possible
>
> ▶ Should be discussed among the faculty to involve them in the improvement or planning process

Action plans can entail:

- Changes to the curriculum (e.g., course sequencing)
- Changes to the assessment plan or methods
- Changes to pedagogical practices
- Implementation of new technology and/or assignments

What does it mean to "close the loop"?

- ▶ "Closing the Loop" is more than action planning.
  - ▶ Consists of following up on an implemented change to see if it had the intended effect
  - ▶ Is a key component of the teaching/learning process
  - ▶ Shows if the action plan had a "return on investment"
  - ▶ It is usually the most difficult step for programs to accomplish

What does it mean to "close the loop"?

"Closing the Loop" can be accomplished in several ways

► Process #1: Assessment results show that the program has achieved its outcome.

► In this process the program:

  ► collected data;

  ► reported results showing that the outcome was achieved given the specified target; and

  ► the program planned to continue to measure the outcome in future assessment cycles.

What does it mean to "close the loop"?

▶ Process #2: Assessment results show that the program has NOT achieved its outcome.

▶ In this process the program:

  ▶ collected data and

  ▶ reported results showing that the outcome was not met given the specified achievement target.

▶ The program then:

  ▶ identified and implemented an action plan to improve performance on the outcome; and

  ▶ examined the impact of the action plan by re-measuring and collecting data on the outcome in a future cycle.

▶ The program then determines if the outcome is being met and, if not, takes further action to improve performance.

What does it mean to "close the loop"?

▶ Process #3: The program determines that the assessment plan is ineffective and needs to be revised.

▶ In this process the program:

   ▶ collected the data and reported the results;

   ▶ determined that the assessment plan was not accurately measuring the outcome or the outcome needed revision; and

   ▶ documented the changes to be made to the assessment plan and re-measured in a future cycle.

When should programs create action plans and "close the loop"?

▶ Academic degree programs should:

　▶ Provide an action plan for all student learning and program outcomes with unmet targets annually

　▶ Provide an action plan for at least one student learning outcome annually, even if all targets were met

　▶ Provide "comments on action planning" for any student learning or program outcomes with previously implemented action plans

What needs to be documented?

- For each degree program or certificate the program documents:

  - Faculty expectations for both the program and student learning outcomes

  - How these outcomes are measured and what the expected achievement targets are

  - Assessment findings at an aggregate level

  - Actions taken for improvement and the results of those actions

- The program should:

  - Demonstrate that an ongoing, systematic process is in place

  - Document repeated cycles of assessment, analysis, reflection, and action

What questions should your final assessment report be able to answer?

- Outcomes:
  - What were the most important learning outcomes identified by the faculty?
  - What potential program development areas were identified?
- Measurement:
  - How was each of the outcomes measured?
  - What achievement targets did faculty set for the outcome-measure pairs?
  - When was the evidence collected and what did it show?
- Analysis and Improvement:
  - For each outcome-measure pair was the expected performance level met?
  - If not met, what does the program plan to do to improve?
  - How are the results and improvements being communicated others?
  - What are the results of previously implemented action plans?
  - Did they assist with student learning or program improvement?

Program Assessment Planning

WHAT DOES THE FINAL REPORT LOOK LIKE?

Student Learning Outcomes (SLOs)	Assessment Measures	Targets	2020-2021 AY Findings	Comments on Findings	Action Planning	Comments on Action Planning
SLO: Explain the core biological concepts related to evolution and principles of genetics.	Capstone paper. In BIOL 4030, students are required to complete a capstone paper. This paper contains a section for students to explain the core biological concepts related to evolution and principles of genetics. A rubric will be used to evaluate student performance on this aspect of the capstone paper.	80% of the students will meet or exceed expectations on the rubric items pertaining to evolution and principles of genetics (score of 3 or 4 on a 4-pt rubric; 4 = exceeding expectations).	65% of the seniors taking the BIOL 4030 course were rated as meeting or exceeding expectations. Target: Not Met	Although there was a slight increase in student performance from the previous year, we still are not meeting our target. We are going to implement changes during 2021-2022 and will re-measure this outcome in 2022-2023.	The program has decided that students need some refresher sessions on core evolution and genetics concepts since this information is mainly covered during their sophomore year in the program.	Last year the program decided to review with students what was expected of them in the capstone paper. There was a 10% increase in the percentage of students meeting the target. (18-19: 55%)
	Any other methodology that was used measure to SLO#1					

Program Outcomes (POs)	Assessment Measures	Targets	2020-2021 AY Findings	Comments on Findings	Action Planning	Comments on Action Planning
PO: Students enrolled in the BS Biology program at the end of their sophomore year will complete the program.	Tracking of students enrolled in the program.	80% of students enrolled at the end of their sophomore year will complete the program.	85% of students who were enrolled in the program at the end of their sophomore year graduated. Target: Met	The findings for this year show an improvement over the findings from 17-18, when this outcome was last measured. We are very pleased with these results, and will re-measure again next year to monitor progress.	N/A	The program did not meet the established target for this program outcome in 17-18 (65%) and decided to require students to complete an additional course prior to moving into the upper division courses. It took the program a few years to implement this action plan but we feel that it has made a tremendous difference in the number of students completing the program.
	Any other methodology used to measure PO#1					

Summary of the Components of an Academic Program Assessment Plan

▶ Mission Statements

▶ Student Learning and Program Outcomes

▶ Measures and Targets

▶ Mapping Techniques

▶ Findings

▶ Analysis, Action Planning, & Closing the Loop

▶ Documenting and Reporting