

Volume

1

LOYOLA UNIVERSITY MARYLAND

Committee for the Assessment of Student Learning (CASL)

*Academic Program
Assessment Guide*

COMMITTEE FOR THE ASSESSMENT OF STUDENT LEARNING

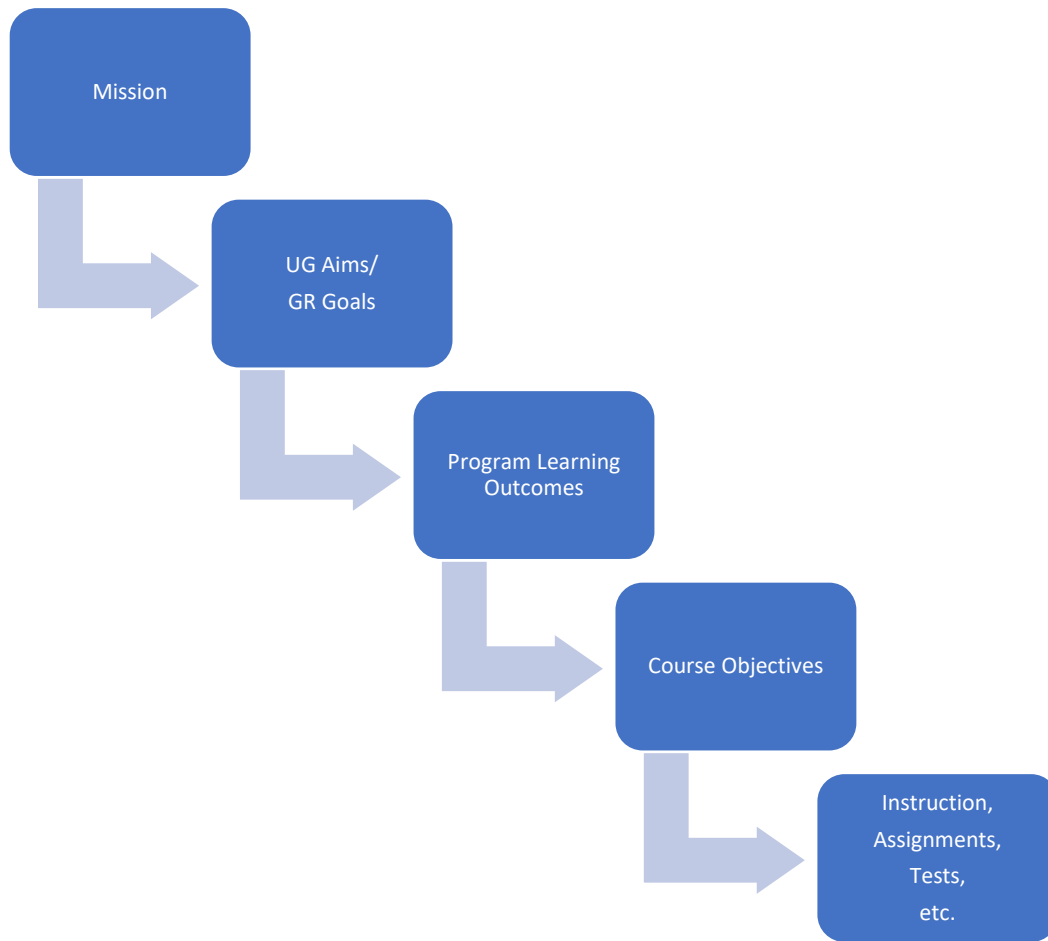
Academic Program Assessment Guide

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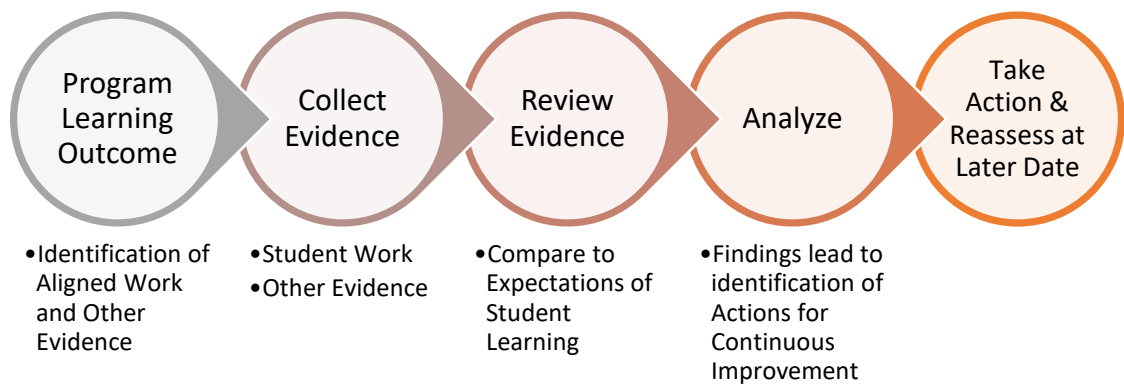
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Alignment in Program Design



Assessment Process Overview



Prologue: The Essential Answers About the Student Learning Assessment Process

Loyola leverages program learning outcome assessments for findings about institutional learning achievement, through the expert insights of those closest to the learning.

WHY *do we conduct assessment of student learning in academic programs at Loyola?*

We assess student learning in academic programs not only to ensure students acquire the knowledge, skills, and dispositions of their chosen field but also to affirm that we are fulfilling our mission to inspire students to learn, lead, and serve in a diverse and changing world. This begins with the intentional design of program learning outcomes aligned with institutional learning outcomes, which have been articulated by the faculty as an educationally holistic embodiment of the mission statement. In addition, we conduct assessment to live up to our core values, especially *Academic Excellence* and *The Constant Challenge to Improve*, and to remain accountable to the students who seek a Loyola education, their families, the state and federal agencies that oversee higher education, and the accrediting bodies that assure the public that we indeed provide a social good that is worthy of federal and state taxpayer dollars in the form of financial aid to students.

WHO *conducts assessment of student learning in academic programs at Loyola?*

Faculty members conduct assessment of student learning in academic programs. This can occur through embedded coursework assessments by the instructor of record, it can occur by selecting random samples of de-identified student work by a committee of faculty who did not teach the course, or it may take the form of another method that employs a variety of faculty who collaborate to evaluate the work of students or their feedback.

WHAT *is assessed to understand student learning achievement in academic programs at Loyola?*

Two types of artifacts are assessed to build an understanding of how well students achieve the program learning aims: indirect and direct artifacts. Direct artifacts allow a student to demonstrate the learning, skills, or dispositions they have gained through direct evidence of their work, performance, presentations, exams, etc. Indirect artifacts give a perception of the learning attained through survey responses, reflections, etc.

EXAMPLES OF DIRECT ARTIFACTS

- Assignment
- Capstone project
- Certification or Licensure exam
- Course exam
- Field assessment
- Portfolio
- Presentation
- Quiz/Test

EXAMPLES OF INDIRECT ARTIFACTS

- Completion rates
- Focus group
- Interview
- Overall course grade
- Reflection paper
- Survey

WHEN *does assessment of student learning in academic programs occur?*

Academic programs complete assessment of student learning on a regular basis. Annual reports are due June 8th. The results are shared among faculty in the program, with the chair, with the dean's office, with the committee on the assessment of student learning (CASL), and ultimately with accreditation bodies during major accreditation events. The results are also used to create reports on University-wide student learning achievement, shared with the combined bodies of governance at Loyola on an annual basis.

HOW *is assessment of student learning conducted at Loyola?*


The following guidebook provides the details of how to conduct and report assessment at Loyola. Broadly, though, assessment begins at the very development of a program when program learning outcome statements are formulated as a reflection of the University's mission and institutional learning outcomes and as a declaration of what a student will gain in demonstrable skills, knowledge, and/or dispositions by completing the program. This alignment carries down with more specificity to course objectives and the instructional tools, assignments, tests, etc. the students will engage as part of the program. Assessment is conducted in an ongoing fashion by collecting direct and indirect artifacts of student learning, evaluating those artifacts in comparison to a shared faculty understanding of the criteria for success, and reporting those findings to colleagues in the department and at the institution. Finally, and critically, assessment is conducted by using the findings to take action for the continuous improvement of student learning.

Ch. 1: Five Principles of Student Learning Assessment


Loyola maintains an ongoing program of student learning assessment to facilitate and improve the quality of student learning.

The principles were last revised and approved by the Academic Senate in fall 2021. The principles underpin assessment activities at Loyola within academic departments and for University-wide initiatives, such as assessing learning outcomes related to the Core Curriculum or graduation requirements.

ICON KEY

 Valuable information

 Exercise

 Test your knowledge

 Guidance

Principle 1: Reflective, Systematic, & Ongoing

Assessment is a reflective, systematic, and ongoing process. The purpose of assessment is to improve student learning. This is accomplished by using student learning assessment results to improve academic support for students, program structure, course content, and pedagogy. Program learning outcomes should be assessed on a regular basis, with a cycle that allows faculty members to observe and document the impact of continuous improvement on student learning over time.



About Program Learning Outcomes

Program learning outcomes define what students should know, what they should be able to do, or dispositions they can demonstrate upon successful completion of the academic program. It is important that the program learning outcomes derive from the University's mission by alignment with the appropriate undergraduate or graduate institutional learning outcomes. Characteristics of good learning outcome statements are that they are clear, specific, observable, mission-based, action-oriented, indicative of an expected level of academic rigor, and meaningful in describing what a successful student should be able to master or accomplish as a result of completing the program. Program learning outcomes are defined and approved during the program proposal process. Program faculty sometimes revise outcome statements to update or clarify, as a result of program refinement. Typically, programs define and assess 3-5 learning outcomes.

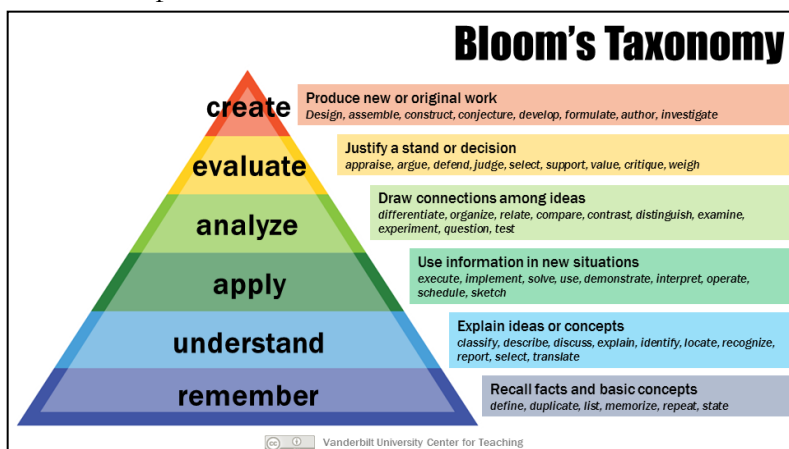
📖 **WRITING A PROGRAM LEARNING OUTCOME STATEMENT:** A general template for writing a program learning outcome articulates one expectation of students that is written in observable terms with one action-oriented verb (to be measured for student success or progress), followed by a description of discipline-specific context.

General template: “By completing the program, students will be able to [one action verb—see Bloom’s Taxonomy] [program/discipline-specific context].”

Example outcome statement: *By completing chapter 1, faculty members will be able to create a clear program learning outcome statement that defines an expectation of content mastery appropriate for the degree upon students’ successful completion of the program.*

- ✎ **Does your program learning outcome statement reference what students will be capable of as a result of completing the program?** Avoid the trap of identifying what the program or instructors will provide, known as “inputs.” Instead, outcome statements should articulate the future-focused skills, knowledge, or dispositions the students will demonstrate.
- ✎ **Does your program learning outcome statement use one action-oriented verb?** Measuring or assessing student achievement relies upon a clear demonstration of success of the total outcome statement—multiple action verbs in one outcome statement lead to imprecise assessments of student achievement.
- ✎ **Does your program learning outcome statement indicate the level of academic rigor expected of a student who completes the program?** Bloom’s Taxonomy of Cognitive Development provides a helpful resource for selecting action verbs indicative of a level of student achievement or performance.

Figure 1. Revised Bloom’s Taxonomy graphic. Armstrong, P. (2010). Bloom’s Taxonomy. Vanderbilt University Center for Teaching. Retrieved July 9, 2022 from



<https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>. Released under a Creative Commons Attribution license.

📖 Guidance for writing statements from external resources – see attachments

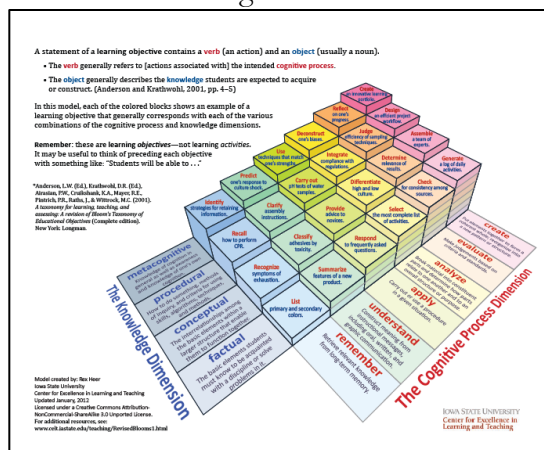


Figure 2. Iowa State University’s A Model of Learning Objectives

Importantly, the program learning outcome statements communicate to all what it is a student gains by completing the program, how the program is tied to the University’s mission, and what goals will guide the curricular design, pedagogy, and assignments of the program, its courses, and any required co-curricular experiences.

📖 Guidance for threading University mission throughout the program: *see Guiding Questions for the Development of Program Learning Outcomes – Drafting Language for Observable Demonstrations of Student Learning (CASL)*

✍️ **Did you know?** Program learning outcomes should align with but not duplicate institution learning outcomes. This alignment ensures coherence of academic programs with Loyola’s educational mission.

✍️ **Did you know?** By creating a curricular map programs can use a simple table to demonstrate how educational experiences are relevant to and interrelated with the program learning outcomes. The maps also identify at what level (Introduce, Reinforce, or Master) the learning outcomes are embedded within individual courses in the program.

CURRICULUM MAP Chemistry (BS)								
Outcomes	Courses							
Chemistry (BS) Outcomes	CH 308	CH 311	CH 312	CH 315	CH 316	CH 406	CH 410	CH 411
PLO #4. Written and Oral Reports Demonstrating Understanding of Chem Through the Loyola chemistry curriculum, students will be able to demonstrate an understanding of chemistry through...	I			R	M			M
PLO #5. Quantitative Techniques and Computational Methods in Analysis Through the Loyola chemistry curriculum, students will learn and apply quantitative techniques and computational metho...		R	M	R	M		A	M

Key: ✓ Aligned I Introduce R Reinforce M Master A Assessment Activity

Figure 3. Sample Curriculum Map – Partial Map of the Chemistry BS learning outcomes and courses



About Assessment Cycles

The Committee for the Assessment of Student Learning (CASL) recommends that programs have at least three and no more than seven program learning outcomes, with exceptions made to meet requirements of disciplinary accreditation. Ongoing, systematic assessment of student learning allows programs to (1) reflect on student progress or achievement, (2) identify and take evidence-based actions for the continuous improvement of student learning, and (3) re-measure for an evaluation of whether those actions had the intended effect.

CASL recommends that **all program learning outcomes be assessed twice within a six-year period**, with special attention to the timeline of disciplinary accreditation or academic program review.



CYCLES SHOULD BE CONSISTENT, SUSTAINABLE, PREDICTABLE, AND DEPENDABLE

Faculty can focus on assessment activities toward the end of the program, at the mastery level, to create a summative analysis of what program completers know and can do. If students do not demonstrate expected mastery of the learning outcome, then the curriculum map becomes an important resource for tracing back to other courses where reinforced and introduced learning can be assessed.



Remember to collect artifacts of student work (and potentially indirect evidence, if appropriate) every year, even if pausing learning outcome analysis for another event, such as academic program review. Work to ensure all faculty teaching the relevant courses with assessment activities are aware of the plan for artifact collection and committed to providing the artifacts.

- If assessments are embedded within courses (i.e., artifacts are assessed by the instructor as a parallel process to grading), collect and store all completed rubrics and/or data related to the assessment in a departmental Microsoft Teams site.

📖 Guidance on setting an Assessment Cycle: *see the 2021-24 Student Learning Assessment Plan and Chapter 2 of this guide*



Collaboration: Programs should consult with their associate/assistant dean and their chairs when identifying a timeline of the assessment cycles for each program learning outcome.

- Some programs will build their cycles around disciplinary accreditation events.

- Other programs will need to be attentive to the timing of academic program reviews.
- Some departments that contribute to instruction of the Core Curriculum will need to be attentive to the timing of Core course assessments.

Principle 2: Faculty-driven

Faculty members drive assessment. Faculty members have the primary responsibility to develop, implement, and revise student learning assessment plans and activities. In addition, successful student learning assessment requires faculty members, administrators, staff, and students to collaborate across functional areas of the University.

CASL remains an important source for such collaboration, as do the Academic Senate and standing committees.

- 📁 Faculty members are responsible for designing and conducting regular program learning assessments. **Annual reports are due June 8th.**
- 📁 Associate/assistant deans have oversight responsibilities for assessment.
- 📁 The University provides resources to facilitate and improve the quality of student learning assessment, including software, training, and support from administrators and CASL.

Principle 3: Evidence-based

Assessment is flexible and uses multiple measures with an emphasis on direct evidence. To assess student learning, faculty members use a variety of methods appropriate to the unique goals, outcomes, and academic content of their disciplines. In addition, faculty members must incorporate direct evidence of student learning into assessment practices for outcomes that are knowledge or skills based.



About Evidence-based Assessment Plans

Program assessment plans are created annually, following the assessment cycle and the curricular map. The plans identify which program learning outcome(s) will be assessed that year, the targets for student success, the measures (artifacts of student work or indirect evidence) that will be/have been collected and evaluated, the rubrics or other tools that will be used to complete the assessment, the assessment process, the mechanism for discussing and using assessment results for continuous improvement, and the assessment participants.



MEASURES SHOULD ALIGN WITH THE LEARNING OUTCOME

When selecting the artifacts of student work or performance or indirect evidence of student learning, be attentive to how meaningfully the objectives of the assignment, performance, survey, etc. align to the expectations of the program learning outcome that is being assessed.

Fidelity of course objectives to the program learning outcome, and then of assignment, performance, test, etc. to the course objectives is an important aspect to consider in the selection of assessment measures.





MULTIPLE MEASURES ALLOW FOR MORE THOROUGH AND MEANINGFUL ASSESSMENTS

When planning for the assessment of a program learning outcome, use more than one measure to evaluate student achievement. At least one measure should be direct evidence of student work. However, the addition of an indirect measure, such as survey responses or a student reflection on knowledge, skills, or dispositions gained in the program, can enhance the faculty members' understanding of the student learning experience and of how to improve student learning in the future. If possible, aim to use two forms of direct evidence and one of indirect evidence.



While multiple measures improve the reliability of the assessment findings, remember to keep the assessment process simple and focused enough to be sustained. If the process is too cumbersome, it often goes by the wayside. Then nobody benefits.

 Guidance on writing up the annual program assessment plan: *see the Assessment Report Plan for Artifact Collection and Evaluation in Chapter 2*

 **IDENTIFYING A TARGET FOR SUCCESS:** The proper evaluation of student work (a “measure”) requires a pre-determined target for success that defines faculty members’ expectations of achievement of the learning outcome. For instance, if a program will use an assessment rubric to evaluate student work or performance, faculty might define the target based on the percent of students that score a particular rating on the rubric. The clearer the target is, the more easily faculty will be able to determine whether students met or did not meet the learning outcome, overall.

The purpose of assessment is the continuous improvement of student learning, so it is helpful to identify when learning outcomes are not met. We do not need to shy away from these valuable findings.

📁 **General template of a learning outcome target:** “At least $x\%$ of students will rate a [#] or higher on the [#]-pt. rubric.”

Or: “At least $x\%$ of students will answer the final exam questions related to [the learning outcome] correctly.”

Example target: *At least 80% of students will rate a 3 or higher on the 4-pt. rubric. Or: At least 75% of students will answer the final exam questions related to quantitative literacy correctly.*

- ✎ **Does your target identify an ambitious but achievable goal for student success?**
- ✎ **Does the target represent the shared understanding of student success among the program faculty?** Is there agreement about the target, and do faculty discuss in detail what the target looks like in terms of student work?
- ✎ **Have the faculty established exemplars of student work at the target level?** Providing exemplars of student work or performance at the threshold for success, exceeding the threshold for success, and below the threshold for success can be valuable for establishing program standards that can be shared across faculty and over time. “Norming” a rubric with fellow faculty is another good practice for arriving at accurate and meaningful assessment findings.

Principle 4: Inclusive and Equitable

As Loyola’s assessment practices are maturing, faculty members will integrate and implement equity-minded assessment plans. The collection of student artifacts should be preserved with future data capabilities in mind, such as disaggregation of demographic data for conversations about equity and examinations of inclusive academic excellence. Loyola’s capabilities will improve with time in this regard.


📁 **PLANNING AHEAD FOR EQUITY-MINDED STRATEGIES:** When assessing diversity, equity, and inclusion, evaluators should frame results in the context of the standards and use equity-minded strategies, including disaggregation of data by race/ethnicity, gender, and other demographic attributes, if available, and avoid comparisons across individuals or groups. Instead, the disaggregated data should be compared against the standard for achievement, and actions for continuous improvement should be taken to enhance learning for all students.




- ✎ **If the program collects a sample of student work rather than artifacts from all students, have the faculty ensured the sample consists of an appropriately representative sample of students or**

course sections? The sample should only include work of program majors. The sampling plan should be determined in advance.

Principle 5: Purposeful and Improvement-oriented

Assessment will drive decision making in planning and improvement processes. Faculty members, administrators, staff, and students will use assessment results to drive curricular and pedagogical change or to improve academic support. Decision makers will not use student learning assessment to evaluate individual faculty members or to make comparisons across programs, departments, divisions, or schools. Evaluators will follow equity-minded strategies and will not use the assessment results to compare individual students or groups.

 **DRAWING CONCLUSIONS AND TAKING ACTION:** By evaluating student work in comparison to targets of success for each learning outcome, the faculty create meaningful evidence for decision making to continuously improve student learning.


-  **Do the results of assessment meet the target for student learning achievement?**
-  **Did the assessment findings illuminate ways to improve student learning?**
-  **Do the actions for improvement seem connected to/derive from the evidence and findings?**

Ch. 2: Five Steps to Creating the Annual Assessment Report Plan


Loyola's assessment practices are guided by best practices of student learning assessment and Loyola's Jesuit values.

The University completes regular assessments of student learning for the fulfillment of its core values of *Academic Excellence* and *The Constant Challenge to Improve*. Assessment leads to improved academic and co-curricular experiences for students, thereby improving University achievement of the mission.

ICON KEY

 Valuable information

 Exercise

 Test your knowledge

 Guidance


The purpose of creating an annual plan for assessment of student learning at the program level is multifold. The written assessment plan will help the program organize its artifact collection and reporting process for the year. The written plan informs the associate/assistant dean and allows them to provide feedback, if necessary. ***Finally, the written plan allows the program to obtain efficient support from the office of academic affairs to build out the software reporting platform.***


Step 1. Reflection


Review and reflect on findings and actions of the 2021-22 program learning assessment report with all full-time faculty in the program. Complete the Chair's Feedback Form (below) **by September 30th**.

Step 2. Review of Assessment Cycle

Review the program's assessment cycle to determine which learning outcome(s) will be assessed this academic year.


 **CREATING AN ASSESSMENT CYCLE:** A simple table can be used to plan and communicate the assessment cycle. The desired outcome is a thoughtful plan that accounts for all program learning outcomes to be assessed at least twice within a six-year timeframe (let year 1 = AY2021-22 if you are starting from scratch). Account for the timing of collection of artifacts for each learning outcome, the timing of the evaluation of the artifacts and reporting, the timing of action to be taken for continuous improvement, and the timing to repeat artifact collection and assessment.


 If the department teaches in the Core, weave in Core Course assessment periodically and lighten the program assessment that year.

 Discuss the proposed cycle with your associate/assistant dean.



Some programs will need to shape their assessment cycles with the timing of disciplinary accreditation events in mind. Others will need to create space for the timing of academic program reviews.

 Does your assessment cycle identify which academic years each program learning outcome will be assessed?

 Does your assessment cycle identify what artifacts of student work will be collected for each program learning outcome and when they will be collected? Similarly, if indirect evidence will be used, is the timeline identified?


 Does your assessment cycle identify when actions for improvement will be taken between assessments of each program learning outcome?

Table 1. Sample Assessment Cycle of a Program with 4 Learning Outcomes in a Department that Contributes to the Core

	YR. 1	YR. 2	YR. 3	YR. 4	YR. 5	YR. 6
PLO 1	Assess	Action	Pause	Collect (Identify artifacts/source)	Assess	Action
PLO 2	Collect (Identify artifacts/source)	Assess	Action	Pause	Collect (Identify artifacts/source)	Assess
PLO 3		Collect / Assess (Identify artifacts/source)	Action	Pause	Pause	Collect / Assess (Identify artifacts/source)
PLO 4	Assess	Action	Pause	Collect (Identify artifacts/source)	Assess	Action
Core			Collect / Assess (Identify artifacts/source)	Action	Pause	Collect (Identify artifacts/source)
Program Review/ Accreditation				Year of Review or Accreditation Site Visit		

Step 3. Write-up of Annual Plan

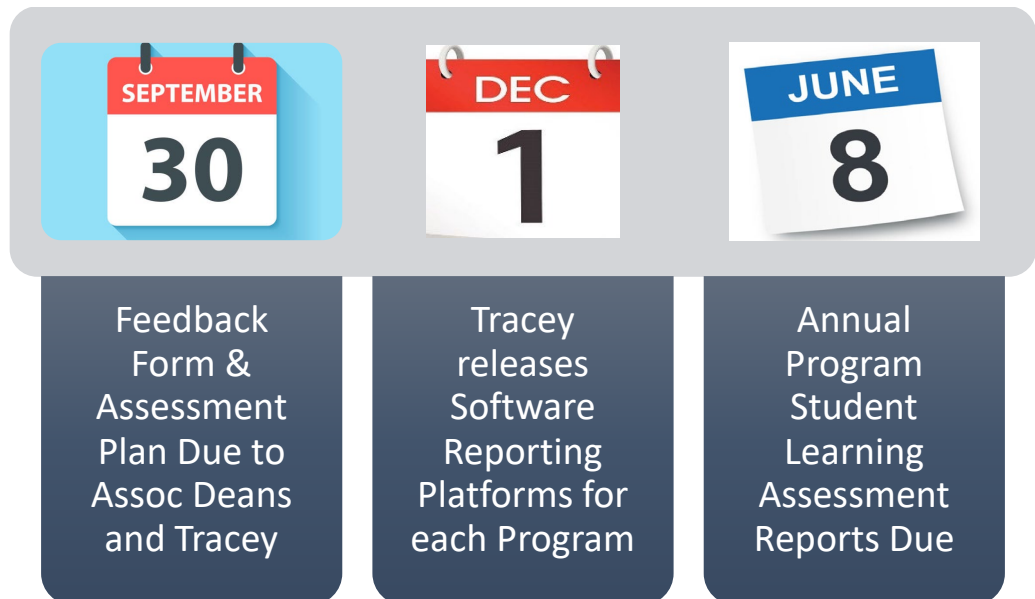
Complete the form on the following pages by replacing the example responses (blue font) with your own. Complete a plan for each degree program in the department. Submit the plan to the associate/assistant dean and to Tracey Frey (tdfrey@loyola.edu) by **September 30th**.

Step 4. Build-out of Software Platform

The office of academic affairs will prep the reporting platform for you and will contact the department when the software is open for reporting (**on or about December 1st**).

Step 5. Report Completion

Follow your assessment plan and complete the report. Add updates to the Action log in the software system to track progress from past assessment reports. Program assessment reports are due no later than **June 8th**.



FORM: Chair's Feedback on 2021-22 Program Learning Assessment Reports

DUE:
SEPTEMBER
30

Department Name: _____

Department Chair: _____

Program Name: _____

Chairs, please provide a brief 1-2 sentence response for each question so that we can improve upon the effectiveness of assessment practice at Loyola. Please return the form to your associate dean and to Tracey Frey (tdfrey@loyola.edu). Please share your responses with your program assessment coordinators.

1. Did the program learning outcome assessment report from last year provide you with meaningful data or evidence for understanding the student learning that occurred?
2. What, if anything, could be improved with the assessment process for you to gain more meaningful data or evidence?
3. Did the results of the assessment report lead to new actions or reallocations of resources?
4. Was the assessment plan achievable without much disruption to the department, and can it be maintained over time in cycles of learning outcomes assessments?

FORM: 2022-23 Assessment Report Plan for Artifact Collection and Evaluation

DUE:
SEPTEMBER
30

Department Name: _____

Department Chair: _____

Program Name: _____

Chairs, please have your assessment committee respond to the questions below and return the form to your associate dean and to Tracey Frey (tdfrey@loyola.edu).

1. Identify which program learning outcome(s) will be evaluated this academic year:

(Please list the full text of the program learning outcome(s) to be assessed. At this time, please verify that the department lists of learning outcomes are consistent across platforms: program website, catalogue, syllabi, and assessment report plan.)

2. Identify when/ how student artifacts will be collected and stored:

examples:

- *Final papers from Course #s were submitted in Moodle in SP22. The papers were saved to a OneDrive folder for the department's assessment committee to access in October.*
- *A group project oral presentation will be recorded in Zoom at the end of the fall semester in Course #. The recordings will be saved by [faculty member name] to share with the department's assessment committee in SP23 for evaluation.*

2a. Evaluate the effectiveness of the artifacts you intend to use for assessment by answering the following questions:

- Is/are the educational experiences aligned to the program learning outcome/s? Please describe.
- If course work is involved in the assessment, is/are the course objective/s aligned to the program learning outcome/s? Please describe.

3. Make a basic timeline of when faculty who are responsible for program assessment will review and evaluate the student work:

example: The assessment committee will review the artifacts during its meetings each semester, typically in October and March. The members of the assessment committee this year are [list faculty names].

3a. Decide what rubric(s) will be used for the evaluation (CASL can help, if necessary) and what the target (s) for success will be:

*example: The department assessment committee will use the Critical Thinking rubric developed by the department and an Oral Communication rubric based on the AAC&U VALUES rubrics. **Target for success:** At least 80% of students will rate a 3 or better on the 4-pt. rubric (applies to both rubrics).*

4. Decide how/when to share findings with department colleagues and discuss them through the lens of continuous improvement so that there is consensus around actions the department will take to improve student learning in the future

example: Their findings will be compiled and shared with the department after Commencement. We will discuss the results and the actions we will take for continuous improvement together during our late May departmental meeting. We will review the proposed actions for improvement when we return pre-fall semester.

5. Determine who will write the report and when it will be completed (deadline: June 8, 2023)

example: The primary author(s) for the report will be [faculty name(s)]. They will complete the report, based on a consensus of the program faculty, in the Watermark reporting system with support from OAA, by June 8, 2023.

Ch. 3: Seven Steps to Completing the Assessment Report

Loyola uses a centralized reporting system called Planning & Self-Study by Watermark to complete annual program assessment reports.

The centralized reporting software allows Loyola to keep a comprehensive repository of assessment results and to leverage assessment of program learning outcomes for knowledge of and insights about student achievement of the Undergraduate Learning Aims and Graduate Learning Goals.







User-friendly software has improved the assessment reporting experience, according to faculty who have used the system.

Annual reports, mission statements, curricular maps, institutional and program learning outcome statements, and action logs are among the elements stored in the system, easily accessible to department chairs across time, faculty assessment participants, associate/assistant deans, CASL members, other academic administrators and staff who support assessment activity, and those with responsibility for external reporting to accrediting bodies. This accessibility, the elimination of lost files, and the consistent form and function of the reports allow Loyola to gain efficiency, improve assessment practice across programs, and increase use of assessment results for the purpose of improving student learning.

Account Access to Watermark Planning & Self-Study

Accounts for Watermark are assigned after completion of the orientation and training. Contact Tracey Frey (tdfrey@loyola.edu) to request an orientation and training. Additional on-demand resources are made available on Loyola's assessment website: <https://www.loyola.edu/department/academic-affairs/resources/assessment-of-student-learning>

Using Planning & Self-Study to Complete Program Assessment Reports

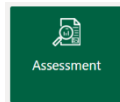
I C O N K E Y	
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Planning & Self-Study can be used to track and manage annual outcomes assessment data (measures, findings, results, actions, etc.) in an Assessment Plan. If one of your Programs is included in an annual Plan, you will see that Plan listed within the Projects In Progress area of your Program.

Step 1. Signing in

The system uses single-sign-on, so you will use your Loyola credentials to sign in. <https://login.watermarkinsights.com/saml-initiate/loyolauniversitymaryland>

A stable link is provided on Loyola’s assessment webpage: <https://www.loyola.edu/departments/academic-affairs/resources/assessment-of-student-learning>. Bookmarking this page instead of the Watermark website will avoid an error. (If you bookmark the Watermark platform, it may give you an “access denied” message in the future because of the redirect for the single-sign-on URL.)



The Loyola assessment website can also be accessed through an “Assessment” button on the inside.loyola.edu homepage.

Leadership Dashboard

When you log in to Planning & Self Study by Watermark, you will see a page that looks like this, with dashboards for each Organization—such as a program or department—for which you have been assigned as a Lead contributor to enter assessment and planning data. You can enter the program dashboard by using the ❶ “Enter” button, or you can enter the Assessment Plan by clicking on its ❷ project title.

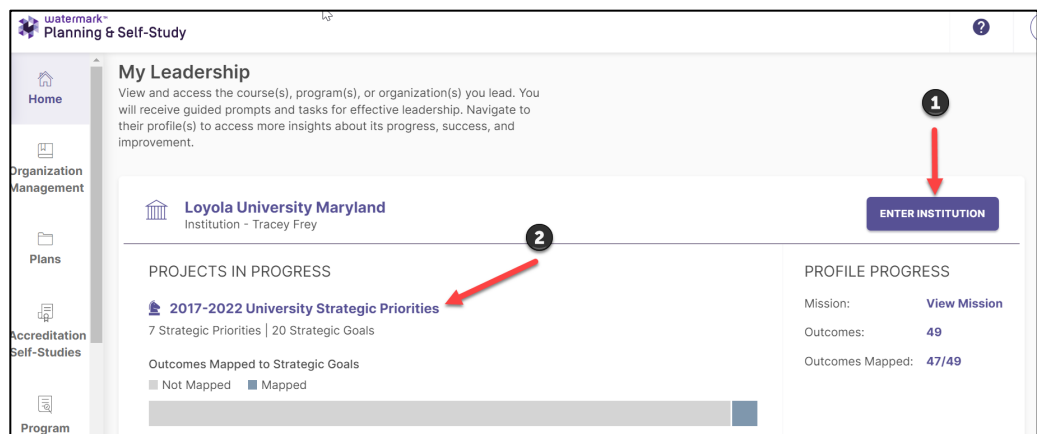


Figure 4. Planning & Self-Study leadership dashboard (Note: views are customized to the individual’s assigned roles)

Once you enter your Assessment Plan, you will see your selected Outcomes and the number of Measures you identified for each Outcome. If your selected Outcomes had Measures added to them in prior Plans, those Measure will automatically be added to those Outcomes for this Plan. The old Measures can be removed easily if they are no longer in use.

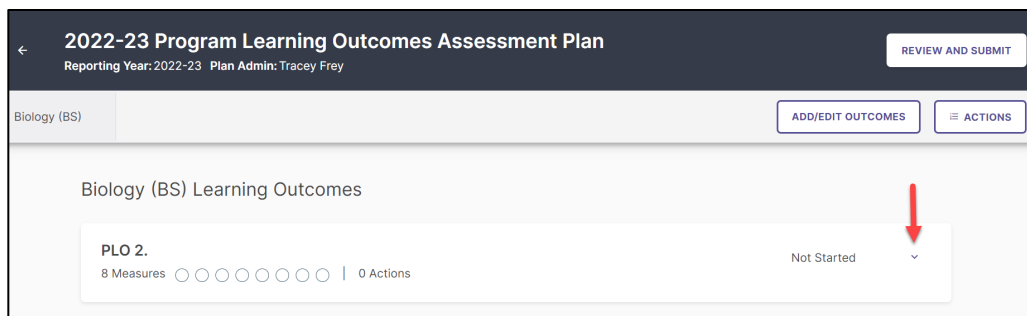


Figure 5. Snapshot of a program assessment plan homepage, where the Program Learning Outcome can be extended

By extending the Program Learning Outcome, you will access the Measures associated with the Outcome. Then you can click the “Add Results” button to begin recording the data for the Measure.

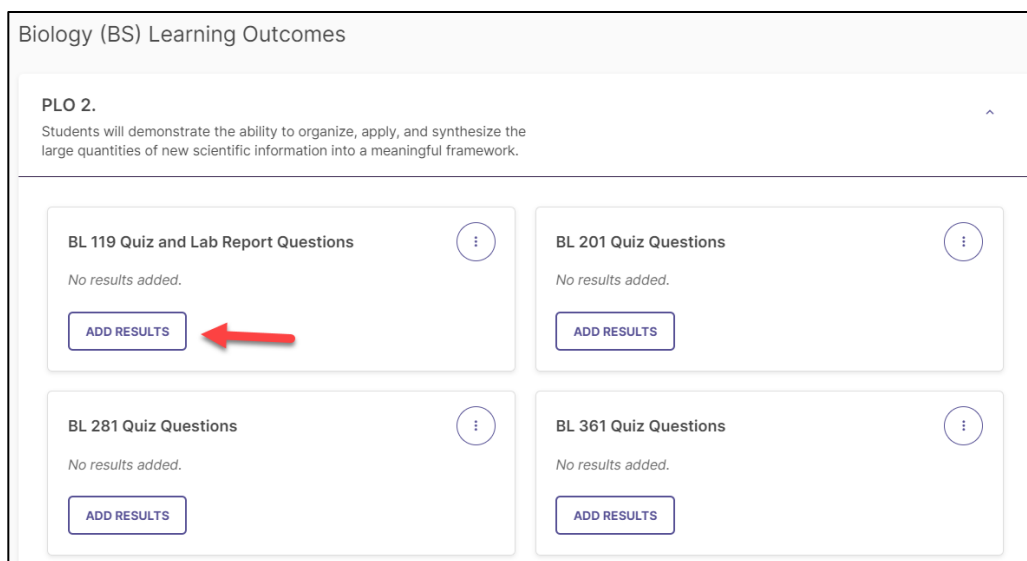



Figure 6. Snapshot of an Outcome, extended to show the Measures. The “Add Results” button takes you to the data entry page.

 It is a good idea to gather your data, analysis, and recommendations for continuous improvement before proceeding further.

Step 2. Adding Results

Once you select to “Add Results,” a new page opens to display the full Measure description and a selection of ways to Add Results. Please note that you may not see all of the following options, based on the type of Outcome assessed and details associated with the Measure.

- 📁 **Option 1 - I want to send emails and collect scores from faculty:** This option is only available for Measures associated with Courses and requires administrative setup to utilize, but it will send emails to faculty teaching course sections asking them to enter their students’ scores for a Measure. **Contact Tracey Frey for assistance.**
- 📁 **Option 2 - I want to upload the assessment results files:** If your assessment Results are documented in a file you have saved to your computer, you can use this option to upload that file as evidence.
- 📁 **Option 3 - I want to enter the count of students who meet/do not meet the criteria:** This option allows you to enter the counts of students who met or did not meet your criteria for outcome achievement, and those results will display as a data graphic. **This is the preferred method if not collecting scores directly from course section instructors.**
- 📁 **Option 4 - I want to align results from another system:** This format is not currently available to Loyola.

The screenshot shows a web interface for adding results. The top section is titled 'Definition' and contains the following details:

- Method: Quiz (Course)
- Outcome: PLO 2.
- Program: Biology (BS)
- Course: BL 119: BL 119 Intro Cell/Molecular Bio Lab
- Title: BL 119 Quiz and Lab Report Questions
- Target: For each quantitative category (Interpretation, Representation, Calculation, Application/Analysis), the mean of all ratings from both the faculty evaluators will meet a threshold of 3.0, on a 4-pt. rating scale.
- Description: Specific quiz questions are evaluated for each category of the rubric.
- Attachments: Attach up to 5 files.

The bottom section is titled 'Results' and contains the following text: 'Select the results format that you would like to use for this measure. You will also be able to include a summary once results have been added.' Below this text are four options, each with a numbered circle above it:

1. I want to send emails and collect scores from faculty (with a rocket icon)
2. I want to upload the assessment results files (with an upload icon)
3. I want to enter the count of students who meet/do not meet the criteria (with a bar chart icon)
4. I want to align results from another system (with a red X icon)

At the bottom of the Results section, there is a note: 'Unavailable: This plan is not associated to a course section'.

Figure 7. Selecting a method to Add Results

If you choose the Results format option “I want to enter the count of students who meet/do not meet the criteria,” next enter the number of students for each achievement category. Click “View Results” when you have entered your student counts.

TYPICAL RUBRIC TRANSLATION
0.0-1.99 Rubric Rating ~ “Not Met”
2.00-2.99 Rubric Rating ~ “Approached”
3.00-3.49 Rubric Rating ~ “Met”
3.50-4.0 Rubric Rating ~ “Exceeded”

The screenshot shows a form titled "Results" with the subtitle "Evaluation of the measure activity". There is a link for "Change Collection Method". The main section is "Enter met/not met counts" with a sub-instruction: "Select the level of detail for met/not met counts:*. The "Overall counts for this measure activity" option is selected. Below this, there are four input fields: "Exceeded" (10), "Met" (20), "Approached" (5), and "Not Met" (5). Below the fields, it shows "Met Total: 30" and "Not Met Total: 10". There is also an option for "Counts for each section" which is currently unselected. A "VIEW RESULTS" button is highlighted with a red box.

Figure 8. Entering the count of students, categorized by ratings.

Your student performance data will now display as a data graphic. You may edit these Results by clicking Edit Results.

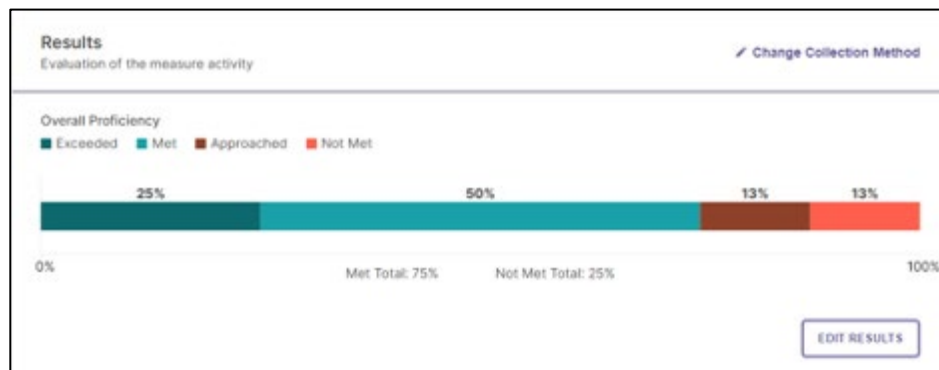


Figure 9. Graphic produced by Planning & Self-Study from the data entered by count of students.

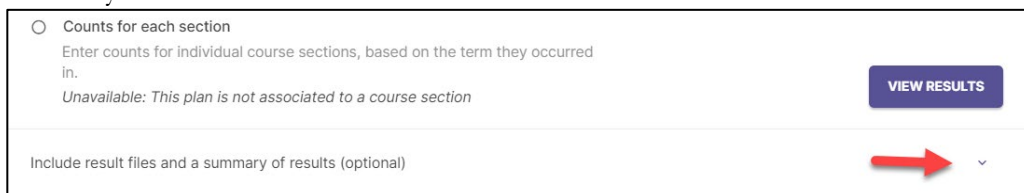
You have the option to enter student counts broken down by course section – if your Measure is associated with a Course that has Course Sections offered during your Plan year – by selecting Counts for each section and clicking Enter Counts. Planning & Self-Study will automatically aggregate totals across all Course Sections. **If this is desired, contact Tracey Frey for assistance with setting up Course Sections.**

The screenshot shows the "Counts for each section" option selected. The text below reads: "Enter counts for individual course sections, based on the term they occurred in." An "ENTER COUNTS" button is visible in the bottom right corner.

Figure 10. Option to enter data for each course section

Step 3. Providing Necessary Context

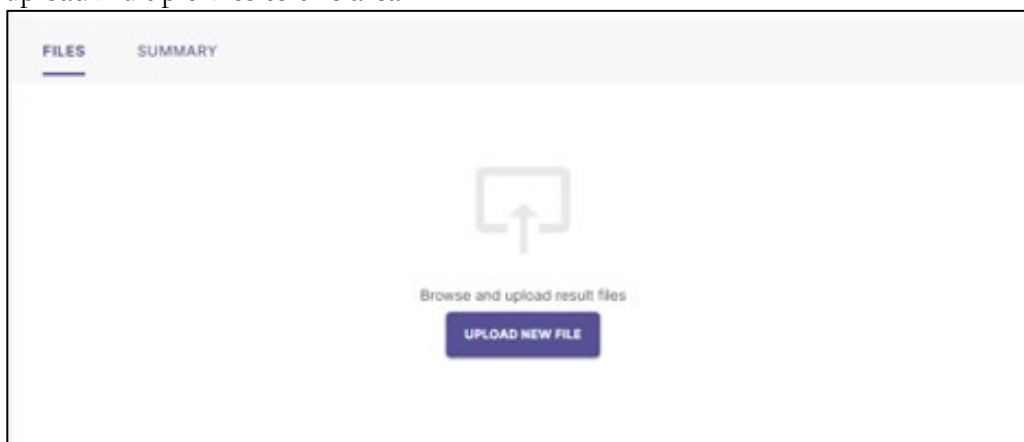
The graphical representation of the data results will require some additional context so that the data are meaningful. **At a minimum, please explicitly state the number of students or artifacts assessed and the number of course sections represented by the data** (e.g., “n=40 students from 2 course sections”). To do so, first click the carrot icon to the right of “Include result files and a summary of results.”



The screenshot shows a form with a radio button labeled "Counts for each section". Below it is a text input field with the placeholder text "Enter counts for individual course sections, based on the term they occurred in." and a message "Unavailable: This plan is not associated to a course section". To the right is a "VIEW RESULTS" button. Below the text input is a dropdown menu with the text "Include result files and a summary of results (optional)" and a red arrow pointing to the dropdown arrow icon.

Figure 11. Extending the carrot to include context about the data results.

This will expand options to both upload a file and enter a summary. You may upload multiple files to this area.



The screenshot shows the "FILES" tab selected. It features a large area with a dashed box and an upward arrow, labeled "Browse and upload result files". Below this is a blue "UPLOAD NEW FILE" button.

Figure 12. Data files can be stored here

You may also click the Summary tab to type additional information about your Results. **This is where you can add the details about the number of artifacts and course sections represented by the data. This is encouraged.**



The screenshot shows the "SUMMARY" tab selected. It features a text input field with the placeholder text "Summarize the results of the measure activity".

Figure 13. View of the Summary tab, where data can be contextualized

Removing or Changing Results

To remove Results and change the selected Results format, click “Change Collection Method.”



Figure 14. “Change Collection Method” can be found at the top of the **Results** section.

This will open a pop-up window to confirm your decision. Click “Yes, Delete Results” to proceed and delete your Results, which will allow you to select a new Results format.

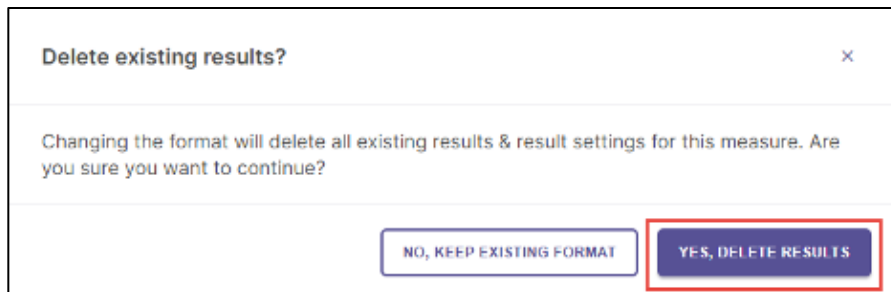


Figure 15. View of window to delete results

Step 4. Analyzing Results

Once you have documented the Results for a Measure, the next step is to document the Findings, or analysis. Scroll down to the Findings category.

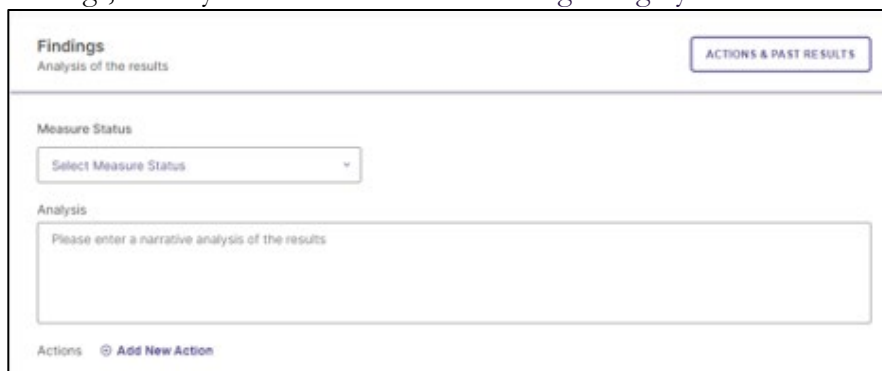


Figure 16. View of the **Findings** section

The first option in this category is to document the Measure Status for this Measure. Use the dropdown menu to select whether the criteria for this Measure was Met or Not Met, based on the Results in comparison to the Target.

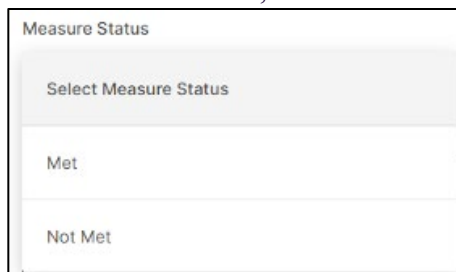


Figure 17. View of the **Measure Status** drop-down menu

You may also enter a more detailed Analysis in the following text field.



Figure 18. View of the **Analysis** box in the **Findings** section

Viewing Actions and Past Results

If the same Measure was used in previous assessment Plans, you can view Actions and Results for previous iterations of that Measure to more effectively analyze how the Results for the most recent iteration fit in to a longitudinal understanding of the Measure. To begin, click the Actions & Past Results button in the Findings section.



Figure 19. View of the “Actions & Past Results” button for longitudinal analysis

This will open a panel on the right-hand side of your screen. Click the icons to toggle between viewing historic Actions and Results associated with your Measure.

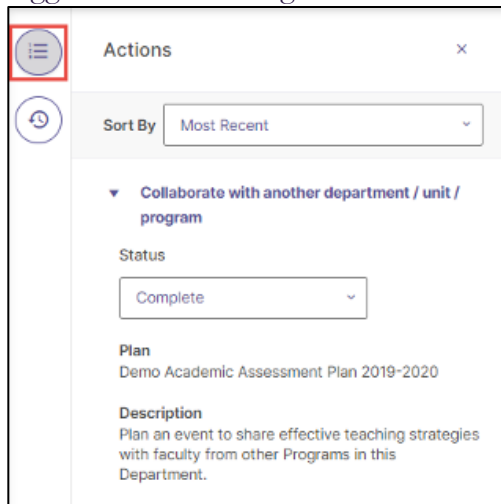


Figure 20.a. View of historic Actions.

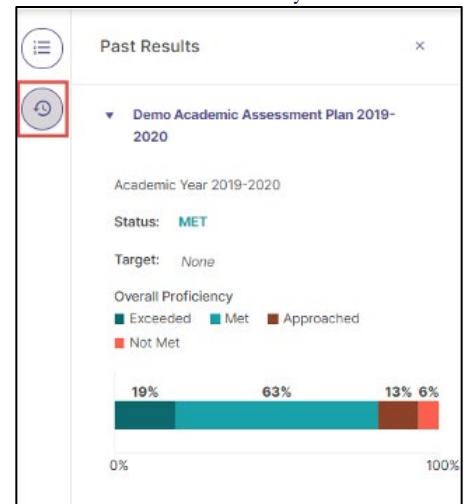
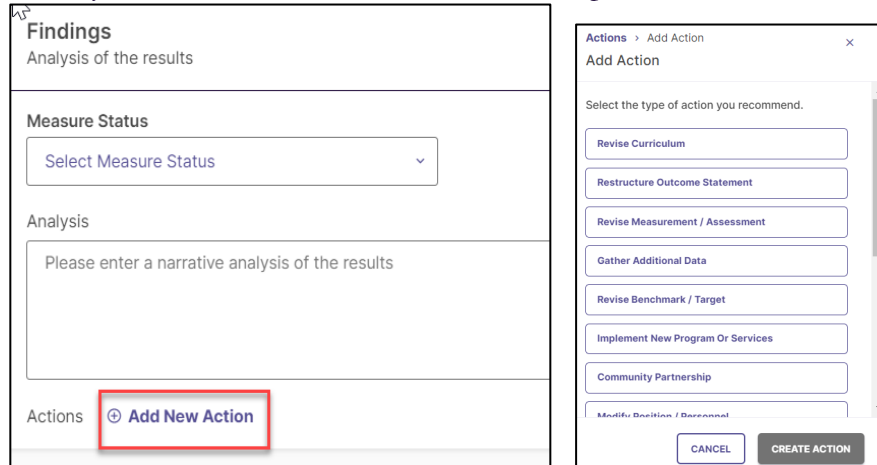


Figure 20.b. View of historic Results.

Step 5. Adding /Editing Actions

Scroll down to the Findings category and click “Add New Action.” This will open the Actions panel on the right-hand side of the page. Next, select the type of action you want to document from the list of options.



Figures 21 & 22. Views of “Add New Action” button and sidebar menu

Once you select an Action Type, enter more details for that Action on the following form and click Create Action.

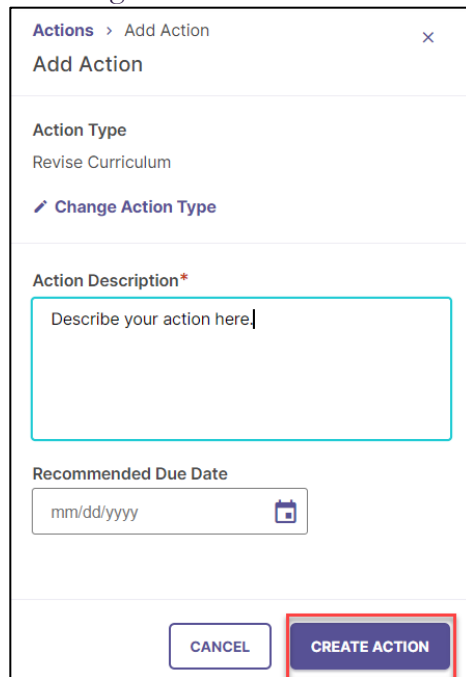


Figure 23. View of the Action Description window

Repeat these steps to enter additional Actions. There is no limit to the number of Actions that can be added to a Measure.

Editing or Deleting Actions

To edit or delete Actions, first open your Action panel by clicking Actions & Past Results in the Findings section.



Figure 24. View of the “Actions & Past Results” button for longitudinal analysis

From the Action panel, expand an Action by clicking the arrow next to it. With the Action expanded, you can edit it by clicking the pen icon, or delete by clicking the trash icon. (See the figure below.)

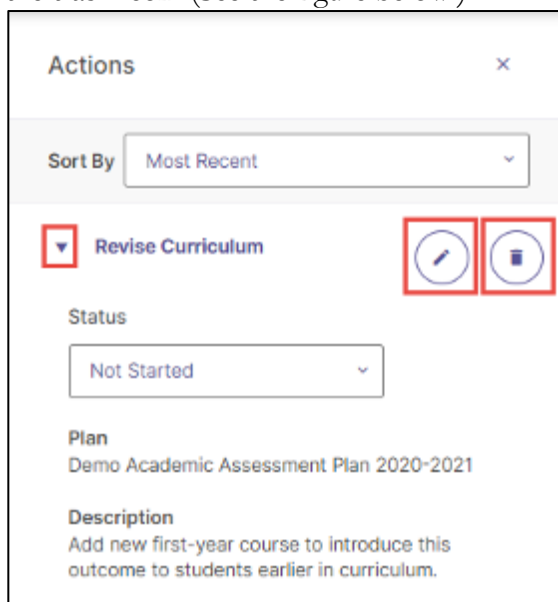


Figure 25. View of the Action panel and icons used to edit or delete the action.

Step 6. Analyze the Outcome

Once you have documented all Measures, Results, and follow-up Actions for an Outcome, the next step is to analyze overall achievement of that Outcome. To begin, click the Analyze Outcome button from the Plan page.

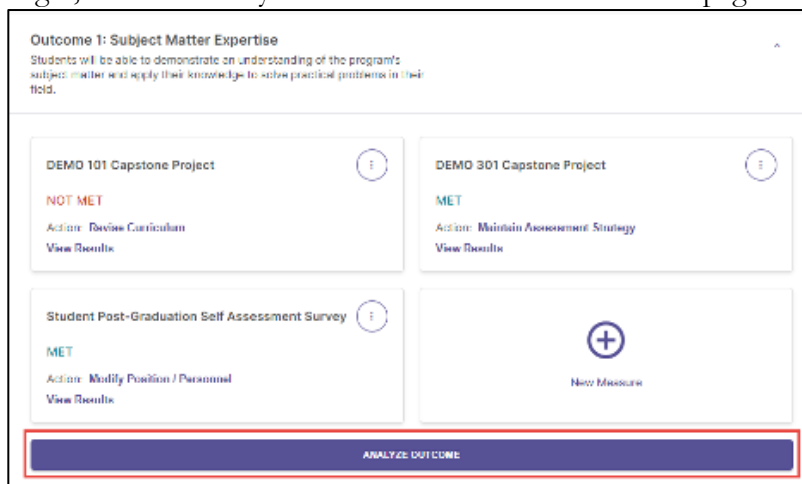


Figure 26. View of the “Analyze Outcome” button, which appears on the Plan page after at least one Measure Status has been marked as “met” or “not met.”

In the following form, use the Outcome Status dropdown menu to select whether the Outcome was Met or Not Met. **This step is critical for the data to flow upward to institutional outcome analysis.**

You may also enter more details in the Outcome Analysis text field. This will display as a **Conclusion** section in your report. Finally, you can document Actions that are related to the Outcome but which are not related to a specific Measure by clicking Add New Action beneath General Outcome Actions.

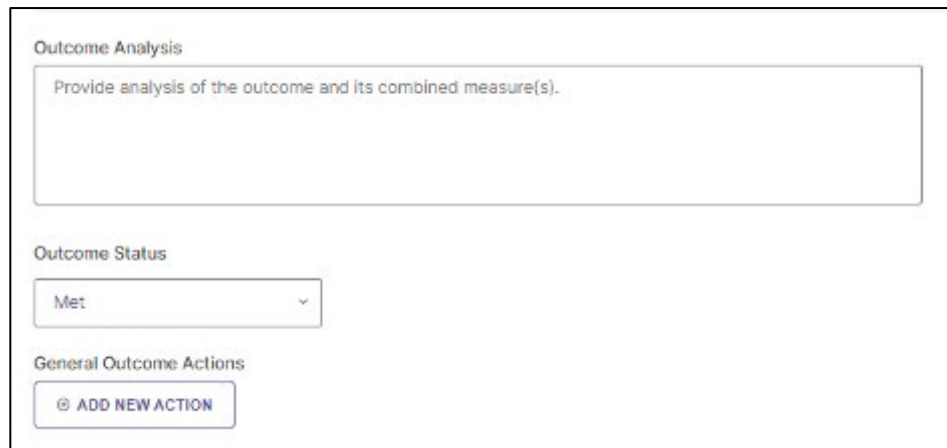


Figure 27. View of the Outcome Analysis form

Reviewing the Report

You may toggle back and forth between the edit view and the report view by using the “Review and Submit” button and then clicking the “Edit” button to return to the edit mode. You may also download a PDF copy of the report from the Review page so that you can share the report with your faculty colleagues or your chair if they do not have access to the software system. Sometimes program assessment committees will review and discuss the PDF copy prior to finalizing and submitting the report.

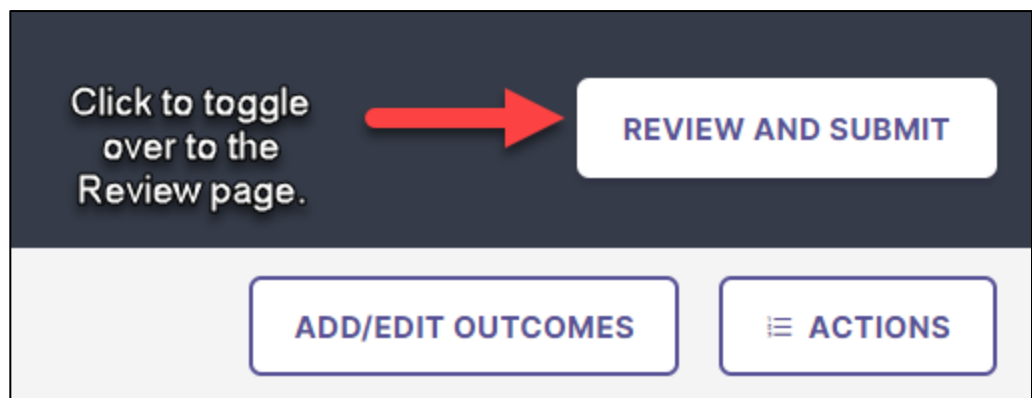


Figure 28. Edit page view of the Review and Submit button

Step 7. Submitting the Report

You may submit the final report by clicking on “Review and Submit” from the edit view and then “Submit” from the Review page. This will alert the office of academic affairs that you have completed the report and that it is ready for use by CASL. It is wise to contact and make your chair aware that the report has been submitted and is ready for review.

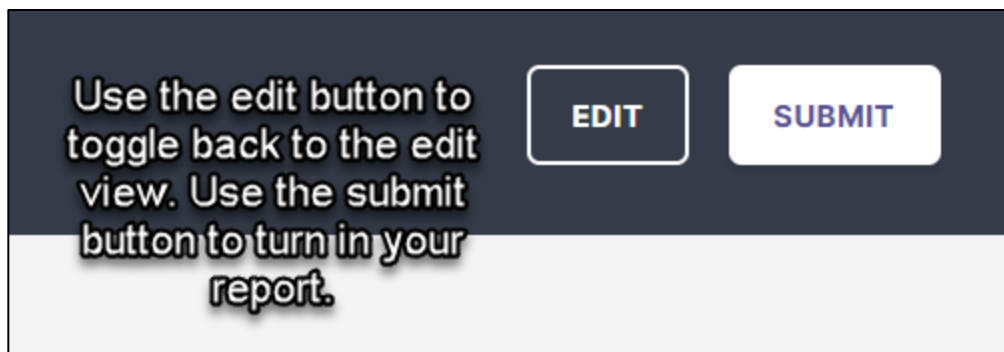


Figure 29. View of the Edit and Submit buttons

Using the Report for Continuous Improvement

Ensure program faculty are aware of the Actions identified for continuous improvement and monitor progress toward completing the Actions. Progress can be recorded in the system throughout the year or at the time of the next report.

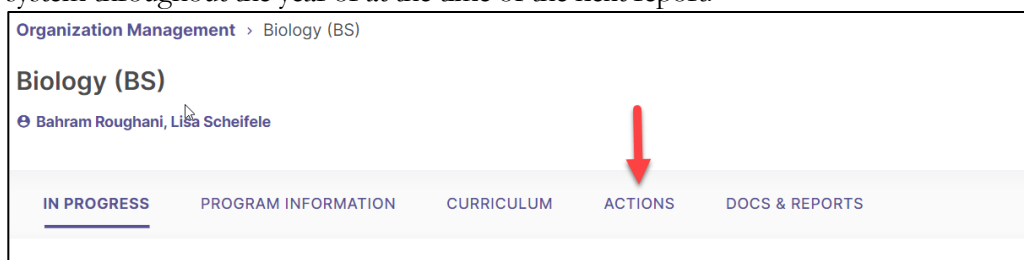


Figure 30. Program page view of the “Actions” tab.

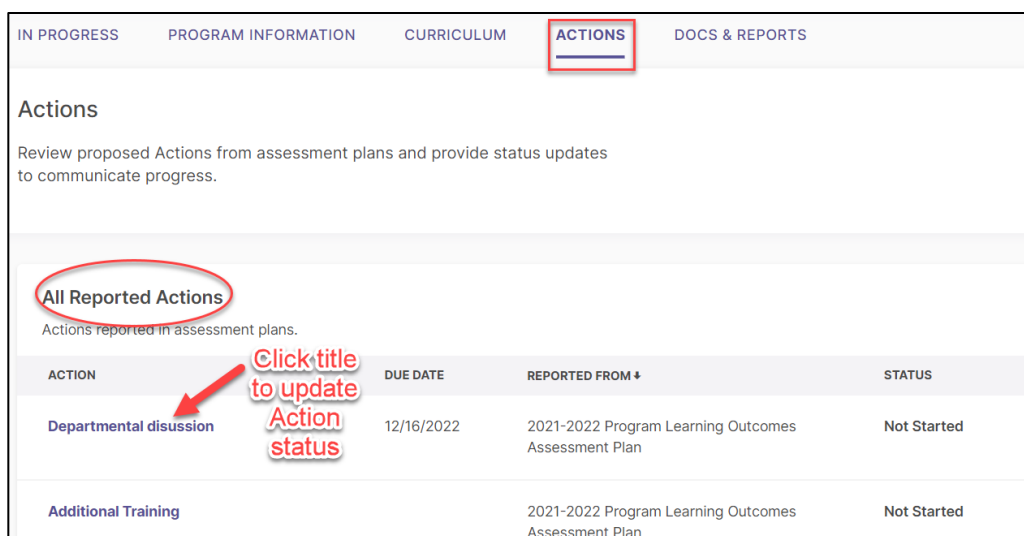


Figure 31. View of Actions page.

You will be able to locate prior years' reports on your program page on the tab, "Docs & Reports."

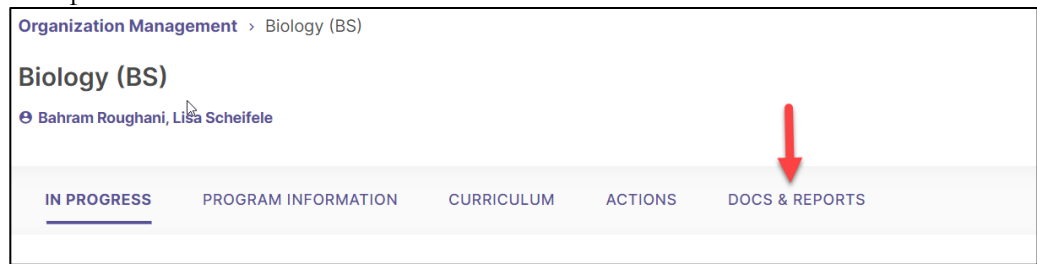


Figure 32. Program page view of the "Docs & Reports" tab.

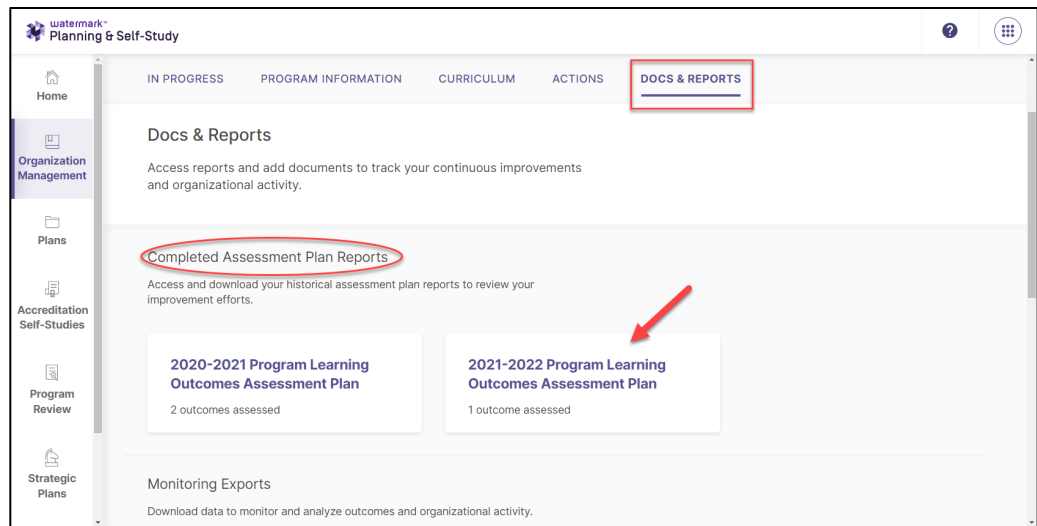


Figure 33. View of the Docs & Reports page.

Acknowledgements

This guidebook builds on the generous knowledge base shared by the assessment community and the expertise of past and present faculty and administrators at Loyola who have contributed to CASL's work for more than a decade. CASL's work has benefitted particularly from resources provided by IUPUI Assessment Institute, Vanderbilt University Center for Teaching, Iowa State University Center for Excellence in Teaching and Learning, Association for the Assessment of Learning in Higher Education, and National Institute for Learning Outcomes Assessment. Large portions of Chapter 3 have been adapted from the Watermark Planning & Self-Study technology support documents.

Bibliography

- Adkison, B. & Fadden, J. *Rapid and Effective Faculty-Led Change in Assessment*. (2020, October). Urbana, IL: University of Illinois and Indiana University, Assessment Institute. <https://assessmentinstitute.iupui.edu/program/2020-important-links.html>
- Baker, Wanda. *Assessment Checkup: Does Your Assessment System Need a Tune-up?*. (2020, October). Council Oak Assessment. Urbana, IL: University of Illinois and Indiana University, Assessment Institute. <https://assessmentinstitute.iupui.edu/program/2020-important-links.html>
- Fassett, K. T. *A Conceptual Framework and Strategies for Examining High-Impact Practices*. (2020, October). Urbana, IL: University of Illinois and Indiana University, Assessment Institute. <https://assessmentinstitute.iupui.edu/program/2020-important-links.html>
- Haeger, H. & BrckaLorenz, A. *Assessing the Impact: Building a Model for Measuring Learning Across High-Impact Practices*. (2020, October). Urbana, IL: University of Illinois and Indiana University, Assessment Institute. <https://assessmentinstitute.iupui.edu/program/2020-important-links.html>
- Haeger, H. & BrckaLorenz, A. *Equity and Inclusivity in the Assessment of High Impact Practices*. (2020, October). Urbana, IL: University of Illinois and Indiana University, Assessment Institute. <https://assessmentinstitute.iupui.edu/program/2020-important-links.html>
- Henning, G., Ackerman, A., DeSantis, M., & Carpenter, R. *Fireside Chat on Equity and Assessment: Examples from Practice*. (2020, October). Urbana, IL: University of Illinois and Indiana University, Assessment Institute. <https://assessmentinstitute.iupui.edu/program/2020-important-links.html>
- Hong, R. C., & Moloney, K. (2020, October). *There is no return to normal: Harnessing chaos to create our new assessment future*. (Occasional Paper No. 49). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment.
- Hurtig, J. K. & Kim, E. *General Education Assessment Reformed: Course-embedded Assessments Followed by Faculty Online Forums and Focus Groups*. (2020, October). Urbana, IL: University of Illinois and Indiana University, Assessment Institute. <https://assessmentinstitute.iupui.edu/program/2020-important-links.html>
- Loyola University Maryland. *Mission, Vision, and Core Values Statements*.
- Loyola University Maryland. (2017). *Seven Areas of Focus for the Strategic Plan*.
- Montenegro, E., & Jankowski, N. A. (2020, January). *A new decade for assessment: Embedding equity into assessment praxis* (Occasional Paper No. 42). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).
- Montenegro, E., & Jankowski, N. A. (2017, January). *Equity and assessment: Moving towards culturally responsive assessment*. (Occasional Paper No. 29). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).
- Office of Academic Affairs, Loyola University Maryland. (2020). *Academic Goals*.

Phillips, G. A., Shanks, K., & Burke, K. *Inviting Students to the Table: Leveraging Students to Do Student Assessment*. (2020, October). Urbana, IL: University of Illinois and Indiana University, Assessment Institute. <https://assessmentinstitute.iupui.edu/program/2020-important-links.html>

Singer-Freeman, K., & Robinson, C. (2020, November). *Grand challenges in assessment: Collective issues in need of solutions* (Occasional Paper No. 47). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment.

Attachments

A Model of Learning Objectives

based on

A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives

Among other modifications, Anderson and Krathwohl's (2001) revision of the original Bloom's taxonomy (Bloom & Krathwohl, 1956) redefines the cognitive domain as the intersection of the Cognitive Process Dimension and the Knowledge Dimension. This document offers a three-dimensional representation of the revised taxonomy of the cognitive domain.

Although the Cognitive Process and Knowledge dimensions are represented as hierarchical steps, the distinctions between categories are not always clear-cut. For example, all procedural knowledge is not necessarily more abstract than all conceptual knowledge; and an objective that involves analyzing or evaluating may require thinking skills that are no less complex than one that involves creating. It is generally understood, nonetheless, that lower order thinking skills are subsumed by, and provide the foundation for higher order thinking skills.

The Knowledge Dimension classifies four types of knowledge that learners may be expected to acquire or construct—ranging from concrete to abstract (Table 1).

Table 1. The Knowledge Dimension – major types and subtypes

concrete knowledge		abstract knowledge	
factual	conceptual	procedural	metacognitive*
knowledge of terminology knowledge of specific details and elements	knowledge of classifications and categories knowledge of principles and generalizations knowledge of theories, models, and structures	knowledge of subject-specific skills and algorithms knowledge of subject-specific techniques and methods knowledge of criteria for determining when to use appropriate procedures	strategic knowledge knowledge about cognitive tasks, including appropriate contextual and conditional knowledge self-knowledge

(Table 1 adapted from Anderson and Krathwohl, 2001, p. 46.)

*Metacognitive knowledge is a special case. In this model, "metacognitive knowledge is knowledge of [one's own] cognition and about oneself in relation to various subject matters . . ." (Anderson and Krathwohl, 2001, p. 44).

This taxonomy provides a framework for determining and clarifying learning **objectives**. Learning **activities** often involve both lower order and higher order thinking skills as well as a mix of concrete and abstract knowledge.

The Cognitive Process Dimension represents a continuum of increasing cognitive complexity—from lower order thinking skills to higher order thinking skills. Anderson and Krathwohl (2001) identify nineteen specific cognitive processes that further clarify the scope of the six categories (Table 2).

Table 2. The Cognitive Processes dimension — categories & cognitive processes and alternative names

lower order thinking skills			higher order thinking skills		
remember	understand	apply	analyze	evaluate	create
recognizing <ul style="list-style-type: none"> identifying recalling <ul style="list-style-type: none"> retrieving 	interpreting <ul style="list-style-type: none"> clarifying paraphrasing representing translating exemplifying <ul style="list-style-type: none"> illustrating instantiating classifying <ul style="list-style-type: none"> categorizing subsuming summarizing <ul style="list-style-type: none"> abstracting generalizing inferring <ul style="list-style-type: none"> concluding extrapolating interpolating predicting comparing <ul style="list-style-type: none"> contrasting mapping matching explaining <ul style="list-style-type: none"> constructing models 	executing <ul style="list-style-type: none"> carrying out implementing <ul style="list-style-type: none"> using 	differentiating <ul style="list-style-type: none"> discriminating distinguishing focusing selecting organizing <ul style="list-style-type: none"> finding coherence integrating outlining parsing structuring attributing <ul style="list-style-type: none"> deconstructing 	checking <ul style="list-style-type: none"> coordinating detecting monitoring testing critiquing <ul style="list-style-type: none"> judging 	generating <ul style="list-style-type: none"> hypothesizing planning <ul style="list-style-type: none"> designing producing <ul style="list-style-type: none"> constructing

(Table 2 adapted from Anderson and Krathwohl, 2001, pp. 67–68.)

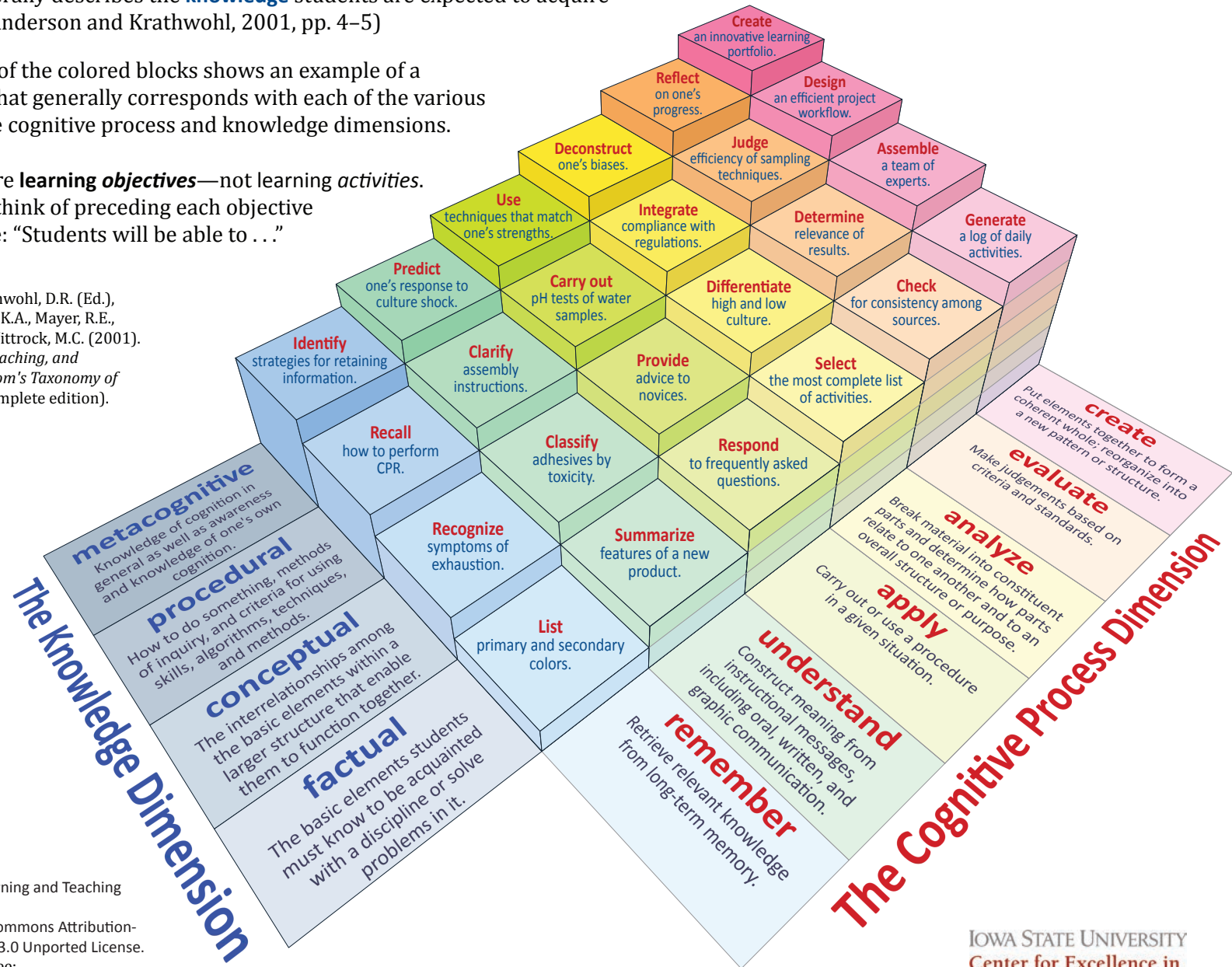
A statement of a **learning objective** contains a **verb** (an action) and an **object** (usually a noun).

- The **verb** generally refers to [actions associated with] the intended **cognitive process**.
- The **object** generally describes the **knowledge** students are expected to acquire or construct. (Anderson and Krathwohl, 2001, pp. 4–5)

In this model, each of the colored blocks shows an example of a learning objective that generally corresponds with each of the various combinations of the cognitive process and knowledge dimensions.

Remember: these are **learning objectives**—not learning *activities*. It may be useful to think of preceding each objective with something like: “Students will be able to . . .”

*Anderson, L.W. (Ed.), Krathwohl, D.R. (Ed.), Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R., Raths, J., & Wittrock, M.C. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives* (Complete edition). New York: Longman.



Model created by: Rex Heer
Iowa State University
Center for Excellence in Learning and Teaching
Updated January, 2012
Licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.
For additional resources, see:
www.celt.iastate.edu/teaching/RevisedBlooms1.html

Bloom's Taxonomy

create

Produce new or original work

Design, assemble, construct, conjecture, develop, formulate, author, investigate

evaluate

Justify a stand or decision

appraise, argue, defend, judge, select, support, value, critique, weigh

analyze

Draw connections among ideas

differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

apply

Use information in new situations

execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

understand

Explain ideas or concepts

classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

remember

Recall facts and basic concepts

define, duplicate, list, memorize, repeat, state

