

The College of New Jersey Assessment Guide



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What is academic assessment?

Assessment at The College of New Jersey is an ongoing and continuous process of self-improvement in which academics and administrators actively gather and measure the productivity and impact of their work. It is an internal process of inquiry in which data is used to inform decision-making, policies, and budgeting. We use these assessment results to demonstrate quality assurance and to improve teaching and learning. Therefore, assessment has four primary purposes: 1) to improve; 2) to inform; 3) to prove; and 4) to support the overall objectives of TCNJ.

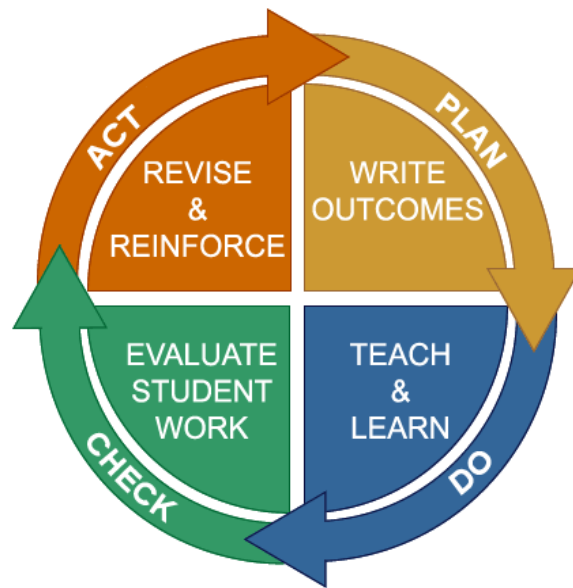
Assessment evaluates student learning and development on several levels, including at the course and program levels. In addition, assessment encompasses broader general education and institutional assessment learning outcomes. General education assessment is aligned with the outcomes identified by the Middle States Commission on Higher Education, to include written communication, oral communication, information literacy and technology, quantitative reasoning, and critical thinking.

Assessment Cycle

Below is an example of the assessment cycle, which is an ongoing and continuous improvement loop where plans are enacted, measured, revised, and re-implemented. The cycle is designed to improve student learning, program design, faculty performance, and the administrative effectiveness of administrative units. Assessment gives all units (academic and administrative) a firm conceptualization of what they are attempting to do, a method for measuring it, and a process for gaining efficiency over time. Without an assessment cycle and process, programs tend to wither, relying on old methodologies and teaching materials. Administrative units also tend to become routinized in their functions without proactively taking

into account the changing environment. An additional benefit is that assessment helps faculty remain engaged in the conversation of what is being accomplished in the classroom, the curriculum and methods of instruction. The construction (and reconstruction) of determining the primary student learning outcomes usually leads to a healthy conversation among faculty on what should be accomplished within the context of the program.

Figure 1: The Assessment Loop (MSCHE)



Academic Assessment

The following is a more detailed description of the overall principles of the academic assessment process at TCNJ. *The Foundation Blocks of Assessment: 1) Mission Statement, 2) Student Learning Outcomes, and 3) Curriculum Maps.*

Mission Statement

The first foundation block of academic assessment is the program's mission statement. Without a well-defined and *assessable* mission statement, academic programs are likely to encounter significant problems when identifying their primary student learning outcomes. In addition, the creation and refinement of mission statements allow for an important internal conversation to occur as a program advances in defining itself. Within the context of accreditation, the mission statement is the unique identifier of a program, and it is within this context that assessment occurs. Below are various examples of mission statements.

Examples of program mission statements:

Poor: *The mission of the Hypothetical Applied Sociology program is to provide a broad sociology education.*

The statement is very vague and does not distinguish this particular program from other sociology programs. It lacks information about the primary functions of the program and does not identify the stakeholders. Additionally, there is no indication that the program's mission is aligned with TCNJ's mission.

Better: *The mission of Hypothetical Applied Sociology is to educate students from diverse backgrounds in the principles of Hypothetical Applied Sociology that will prepare them for both current and future professional challenges in Hypothetical Applied Sociology.*

This statement is better because it identifies the stakeholders and the primary function of the program; however, it still is not a distinctive statement.

***Best:** The mission of the Hypothetical Applied Sociology bachelor's degree program is to educate students from diverse backgrounds in the fundamental skills, knowledge, and practice of Hypothetical Applied Sociology (through courses and an internship) in order to 1) prepare them for Hypothetical Applied Sociology positions in the nonprofit and public sectors and 2) prepare them to pursue advanced degrees in Hypothetical Applied Sociology or related disciplines. The program promotes commitment to continued scholarship and service among graduates and will foster a spirit of innovation. Also, it promotes an environment that is inclusive and diverse.*

Student Learning Outcomes

Assessment begins with each academic department defining its *primary student learning outcomes* (SLOs). While, admittedly, a program could have dozens of learning outcomes, it is important to have consensus on the primary student learning outcomes. Primary student learning outcomes are representative, but by no means exhaustive, of all learning within a program. Each academic program should have no fewer than four but no more than eight SLOs. The SLOs represent what students will be able to know and do at the time of degree completion. Once those SLOs have been defined, the process of assessment can be planned. Such planning includes identifying the educational experiences through which the student achieves the learning outcomes.

Below is an example of student learning outcomes from a B.S. in Accounting at Kansas State:

It is our expectation that upon degree completion from the Department of Accounting, students will have these characteristics:

- *Students will possess adequate technical knowledge of accounting and related disciplines to enter the accounting profession.*

- *Students will be able to combine critical thinking skills (disciplined and creative thinking) and technical knowledge to solve problems in a constantly changing professional environment.*
- *Students will have adequate knowledge of the ethical standards of the accounting profession and be able to exercise ethical awareness.*
- *Students will be effective and productive members of project teams.*
- *Students will be able to verbally express themselves in both formal presentations and informal dialogue.*
- *Students will have the ability to write clearly and concisely.*
- *Students will be able to apply computer skills to retrieve and manage information in an accounting environment.*
- *Students will know the origins of accounting and its importance to society.*

Curriculum Maps

Central to the process of linking the primary student learning outcomes with the courses offered in the major is the use of the curriculum map. In these courses, one or more SLOs are being advanced at varying levels. In the early stages of the major, the SLOs are introduced. During the intermediate stages of the discipline, various courses reinforce and advance students' knowledge and skills in each SLO, and finally, students achieve mastery/proficiency in all primary SLOs by the time of the culminating experience or capstone course. The curriculum map shows that courses are not merely amalgams of various corners of a discipline, but build on the core knowledge and skill sets required.

Finally, a word about the “mastery/proficiency” that must be achieved upon time of degree completion: By mastery/proficiency, a program is not making a claim that a student has

become a master-level student, but that, appropriate to the degree requirements, students are proficient in the discipline. Below, please find a sample of a curriculum map.

Program Name—B.A. in Political Science

The B.A. in political science prepares students to achieve the expected student learning outcomes identified by the program or discipline. The following table demonstrates how learning activities in specific courses map to these learning outcomes.

Key: I-Introduced R-Reinforced M-Mastery A-Assessment evidence collected

Figure 2: Sample of a Curriculum Map

Required Courses	SLO #1	SLO #2	SLO #3	SLO #4	SLO #5	SLO #6
PS 1010	I		I	I		I
PS 2100		I		R	I	
PS 2300	R	R				R
PS 2400		R	R	R		
PS 3200-3230	R	R		R		R
PS 3240	R/M	R		R/M		R/M
PS 3250		R/M	R/M		R/M	
PS 4130	M, A	M, A	M, A	M, A	M, A	M, A

TCNJ Example

ESLAS prepares students to achieve the expected student learning outcomes identified by the program with a specific focus on academic skill attainments such as writing and speech

communication in a conversational setting as well as content on American studies including historic and contemporary issues. The following table provides an academic framework where various SLOs are introduced, reinforced, and mastered. The table shows the interrelated themes amongst the courses and how they build a comprehensive and cohesive learning experience.

Key: I-Introduced R-Reinforced M-Mastery A-Assessment evidence collected

ESLAS Core Courses & Requirements		Program Learning Goals						
		SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	SLO7
Course Number	Course Name	Effective Writing (Skill 1)	Effective Oral Communication (Skill 2)	Critical Reading (Skill 3)	American Studies Content History Emphasis (Knowledge 1)	American Studies Content Pop. Culture/Current Events Emphasis (Knowledge 2)	TBA	TBA
ESL 095	Remedial English as a Second Language	I	I		I			
USA 170	****	R		I		I		
ESL 201	****	R	R					
ESL 202	****	R	R					
USA 270	****	R	R	R		R		
USA 370	****			R		M		
ESL 401	****	M	M					

Assessment of Academic Programs

Program assessment is an ongoing process designed to monitor and improve student learning. The guidelines for the periodic program review and the annual assessment template are attached to this document.

Assessment is defined by the following six steps:

1. Define goals and objectives.
2. Check for alignment between the curriculum and objectives.
3. Develop a meaningful, manageable, and sustainable assessment plan.
4. Collect assessment data.
5. Close the loop—reflection and action.
6. Routinely examine the assessment process.

Once the elements of the assessment plan are in place, the designation and distribution of duties and processes must be considered. Someone must be assigned to collect and analyze the data. Decisions on how the data will be collected and who will participate in the analysis are important. The best assessment processes are those that engage as many constituents as possible; while each process may have assigned leaders, all faculty must be active members in order for programs to maximize the benefits.

There are two essential ways to assess student learning:

- 1) *Direct evidence*—The assessment is based on an analysis of student behaviors or products in which students demonstrate how well they have mastered learning objectives.
- 2) *Indirect evidence*—The assessment is based on an analysis of reported perceptions about student mastery of learning objectives. The perceptions may be self-reports, or made by others, such as faculty, employers, and supervisors. Grades are also frequently used as an indirect evidence indicator.

The following are properties of good assessment techniques:

- Valid—directly reflects the learning objectives being assessed;
- Reliable—including inter-rater reliability when subjective judgments are made;
- Actionable—results point reviewers toward challenges that can be approached;
- Efficient and cost-effective in time and money;
- Engaging—to students and other respondents;
- Interesting to faculty and other stakeholders;
- Triangulation—multiple items of evidence point to the same conclusion.

Student achievement can be measured directly by using published tests, locally developed tests, embedded assignments, rubrics, and other well-defined course activities, as well as portfolios. Each of these methods has strengths and drawbacks, from budget and time consumption problems to validity and reliability issues. Multiple measures and methods over

time should be used to determine whether students have demonstrated mastery of the key student learning outcomes.

Indirect measures include grades, surveys, interviews, and focus groups. While indirect evidence is not as compelling to Middle States, it can provide valuable insight. Indirect evidence allows for additional evaluative data to be added to the learning profile, and it is often easier to collect. It is best to use more than one measure when accumulating information.

Scoring rubrics classify student products (e.g., papers, speeches) or behaviors into categories along a continuum. They can be used to classify virtually any work product or behavior, such as essays, research reports, portfolios, works of art, oral presentations, and group activities. Rubrics should be used to provide formative feedback to students, to grade students, and/or to assess programs. A quality rubric will have at least four columns (measuring the achievement of a category) and no fewer than four categories or tasks within the assignment. While a robust set of categories and columns is necessary, they do not always have to be measured the same. What is important is that students be made aware of any weighting system, as the rubric has the power to improve the final product submitted by students.

Rubrics are most effective when they are given to students at the time of the assignment so they will know your expectations and how they'll be graded. This should help students master your learning objectives by guiding their work in the appropriate directions. Use the rubrics for grading students' work, and return the rubric with the rating on it. Rubrics often save faculty time writing extensive comments, as they can circle or highlight the relevant segments of the tool, then include additional comments within each section or at the end of the document. Another very effective way of using a rubric is to have the students self-assess their work; then

faculty and students can compare the self- and faculty-generated evaluations.

Bloom's Taxonomy

Bloom's taxonomy of cognitive objectives, originated by Benjamin Bloom and collaborators in the 1950s, describes several categories of cognitive learning.

Figure 3: Bloom's Taxonomy & Descriptive Verbs

Knowledge <i>LESS COMPLEX</i>	Comprehension	Application	Analysis <i>MORE COMPLEX</i>	Synthesis	Evaluation
To know facts, terms, concepts, principles, or theories; to remember previously learned information.	To understand, interpret, compare and contrast, explain; management of knowledge.	To apply knowledge to new situations, to solve problems; use of comprehension or understanding.	To identify the organizational structure of something; to identify parts, relationships, and organizing principles.	To create something, to integrate ideas into a solution, to propose an action plan.	To judge the quality of something based on its adequacy, value, logic, or use; appraisal of own or someone else's analysis or synthesis.
Cite Count Define Draw Identify Indicate List Match Memorize Name Point Quote Read Recite Record Repeat Select State Tabulate Tell Trace Underline	Arrange Associate Classify Compare Compute Contrast Differentiate Discuss Distinguish Estimate Explain Express Extrapolate Give examples Infer Locate Outline Paraphrase Predict Report Restate Review Suggest Summarize Tell Translate	Apply Calculate Change Classify Demonstrate Determine Discover Dramatize Employ Illustrate Interpret Investigate Locate Manipulate Operate Order Organize Practice Report Restructure Schedule Sketch Solve Use Write Translate Use	Analyze Appraise Break down Calculate Categorize Classify Compare Debate Deconstruct Determine Diagram Differentiate Distinguish Examine Experiment Identify Illustrate Inspect Inventory Outline Question Relate Select Solve Test	Arrange Assemble Categorize Collect Combine Compile Compose Construct Create Design Devise Explain Formulate Generate Manage Modify Organize Perform Plan Prepare Produce Propose Rearrange Reconstruct Relate Revise	Appraise Assess Choose Compare Conclude Contrast Criticize Decide Discriminate Estimate Evaluate Explain Grade Interpret Judge Justify Measure Rate Relate Revise Score Select Summarize Support Validate Value

Bloom's Taxonomy Continued....

Category	Description
Knowledge	Ability to recall previously learned material
Comprehension	Ability to grasp meaning, explain, and restate ideas
Application	Ability to use learned material in new situations
Analysis	Ability to separate material into component parts and show relationships between parts
Synthesis	Ability to put together separate ideas to form a new whole, establish new relationships
Evaluation	Ability to judge the worth of material against stated criteria

Using Bloom

Bloom's taxonomy can be used as a hierarchical model of learning, with categories such as knowledge and comprehension representing basic learning objectives, and synthesis and evaluation equaling more complex learning models. A curriculum map represents a development matrix of learning within an academic program; the early courses introduce the primary SLOs. It is through repetition and the reinforcement of the SLOs in subsequent courses that proficiency and mastery are achieved. Student learning outcomes that are contained solely in one course probably do not rise to the level of primary learning objectives for a program; therefore, these SLOs should not be listed as program goals. The primary student learning outcomes should appear in no fewer than two and perhaps as many as five or six courses in order to be certain that students have reached a level where they can use and apply the theory, skill, knowledge, etc. The verbs associated with Bloom's taxonomy provide a framework for writing/developing SLOs, and can serve as a guide for faculty on what students are accomplishing in the course relative to the cognitive development map.

Direct Evidence

Middle States considers direct evidence the best indicator of student learning. MSCHE strongly recommends that each student learning outcome have at least one direct evidence measure in order to provide support that students have achieved the knowledge, skill, or value set. Linda Suskie says that direct evidence makes a *clear and compelling* case that would be believed even by a skeptic. Below is a sampling of direct evidence measures.

Direct (Clear and Compelling) Evidence of What Students Are Learning

- Ratings of student skills by field experience supervisors
- Scores and pass rates on appropriate licensure/certification exams (e.g., Praxis, NLN) or other published tests (e.g., Major Field Tests) that assess key learning outcomes
- “Capstone” experiences such as research projects, presentations, theses, dissertations, oral defenses, exhibitions, or performances, scored using a rubric
- Other written work, performances, or presentations, scored using a rubric
- Portfolios of student work
- Scores on locally designed multiple-choice and/or essay tests such as final examinations in key courses, qualifying examinations, and comprehensive examinations, accompanied by test “blueprints” describing what the tests assess
- Score gains between entry and exit on published or local tests or writing samples
- Employer ratings of employee skills
- Observations of student behavior (e.g., presentations, group discussions), undertaken systematically and with notes recorded systematically
- Summaries/analyses of electronic discussion threads
- Student reflections on their values, attitudes, and beliefs, if developing those is an intended outcome of the course or program

Indirect Evidence

Middle States considers indirect evidence to be a sign that students are learning, but it leaves some doubt regarding how much and what students have mastered. MSCHE calls for multiple measures of student learning, and one of those measures can include indirect evidence like grades and attitudinal surveys. Indirect evidence is insufficient to prove that students have achieved proficiency; however, it can assist with building a profile of student learning, and it is often easier to collect. Grades are often a primary topic when it comes to measuring student success. Middle States has taken great issue with grades and relegated them to the lower-tier status of indirect evidence. Grades are not direct evidence because they are a compound outcome of several factors, including nonacademic variables. Grade inflation has also become a concern, and its existence casts doubt on the validity of grades as a measure of student performance. Below are some examples of indirect evidence, which should be used when building a portfolio of evidence of student learning.

Indirect Evidence of Student Learning

- Course grades or assignment grades, if not accompanied by a rubric or scoring guide
- For four-year programs, admission rates into graduate programs and graduation rates from those programs
- Quality/reputation of graduate and four-year programs into which alumni are accepted
- Placement rates of graduates into appropriate career positions and starting salaries
- Alumni perceptions of their career responsibilities and student/alumni satisfaction with their learning
- Student ratings of their knowledge and skills and reflections on what they have learned in the course or program

- Questions on end-of-course student evaluation forms that ask about the course rather than the instructor
- Student participation rates in faculty research, publications, and conference presentations
- Honors, awards, and scholarships earned by students and alumni

Rubrics

A grading rubric is a tool designed to communicate the expectations of quality around a task. In many cases, rubrics are used to describe consistent criteria for grading. Because it is public, the rubric allows teachers and students alike to evaluate criteria that can often be complex and subjective. A rubric provides a basis for self-evaluation, reflection, and peer review. It is aimed at accurate and clear assessment, fostering understanding, and indicating a way to proceed with subsequent teaching/learning. Quality rubrics are simple and direct, yet have a robust enough scale to capture differences in performance. Rubric usage is strengthened when there are norming sessions where faculty discuss how papers will be graded. This leads to an increase in inter-rater reliability.

Rubrics are increasingly valued because scores on them are considered direct evidence, and hence their numbers in the aggregate present a clear and compelling case of student learning. It is highly recommended that all programs have rubrics, and that faculty share in the creation of these tools to discuss and define “what’s important.”

The College suggests that faculty use rubrics, but not be bound to them. Rubrics are excellent tools for synthesizing qualitative evidence into a quantitative format, but they are not designed to capture the exceptional. Yes, the student may earn a “5” or “4” or whatever the highest numeric category is in the rubric, but there are times when even these scales fail to capture accurately the work submitted by the student. In these cases, an appropriate use of bonus

points should be encouraged. It is the College's belief that excellence must always be acknowledged and rewarded. The American Association of Colleges and Universities (AAC&U) has created specific [rubrics](#).

Flowchart Describing Assessment Process

Plan

Step 1: Organize for assessment

Step 2: Define program mission

Step 3: Define program goals

Step 4: Define program student learning outcomes

Step 5: Inventory existing and needed assessment methods

Step 6: Identify assessment methods and target outcomes for each SLO

Do

Step 7: Collect the data

Check

Step 8: Analyze results

Step 9: Provide feedback

Act

Step 10: Implement changes

Step 11: Monitor changes and compare results

Step 12: Review information

Step 13: Go to Step 1

