

The University of North Carolina at Greensboro

Academic Assessment Handbook

2011-2012

The University of North Carolina at Greensboro has an established process for academic assessment. All academic programs assess student learning and implement action plans to improve them based on that assessment. These guidelines are meant to provide background information as faculty members revisit their assessment processes. They align with the Enhancement Progress Rubric developed by the Student Learning Enhancement Committee.

At the start of each section, a summary of the salient points is given. The body of the section contains background and explanations to help understand more fully the assessment processes and approaches at UNCG. At the end of each section, you see the application of the points to the Rubric.

Why do we do assessment?

Summary

- The value of assessment is to
 - provide information to the faculty in order to assure student learning and its ongoing improvement;
 - document what students are learning and use it to promote programs;
 - be accountable to our constituents, and;
 - provide evidence to support accreditation.

Before getting into what assessment is and how it is conducted at The University of North Carolina at Greensboro, it is important to understand why we even engage in these activities in the first place. There are a number of reasons why we assess at UNCG. We conduct assessment in order to improve our student learning. We do assessment to provide evidence of successes. We assess to be accountable to our stakeholders. And we do assessment to satisfy external accreditation requirements. Formal assessment allows UNCG to deliver important information about learning to many constituents, especially the faculty and students in the program.

The primary value of assessment is to provide information to the faculty in the program so that they can maintain the high standards they have set for the program. Assessment data can give the information needed to capitalize on student successes or address weaknesses. Data may show students in an undergraduate program conduct research at levels expected of graduate students, which could be used to attract prospective students. Other data may show that the same program has a deficiency in writing that needs to be addressed through additional opportunities in the curriculum to practice these skills. Assessment data can help identify successes and challenges. It can also suggest possible steps to improve the program. The assessment process ensures that we regularly gathering evidence of student learning outcomes in order to assure expected student learning outcomes.

A second benefit to assessment is that departments can document what their students are learning in order to discuss program successes. Programs find it useful to promote their successes for any number of reasons. First, there is the benefit in the recruiting process, when a department can herald the learning accomplishments of current students in order to attract future students. There is the benefit of promoting the program faculty in order to attract other faculty or encourage funding of teaching and learning. There is also the benefit of demonstrating how the program contributes to the overall success of the institution. By having the evidence that the program's students are achieving the outcomes, and that they in fact continue to improve, departments can use assessment to publicize the strengths of their programs.

A third benefit of doing assessment is being accountable to our constituents. In 2006, the Commission on the Future of Higher Education reported "results" are the determining factor of how higher education institutions are judged.¹ In the process of assessment, faculty determine what expectations are for student learning, how those standards are demonstrated in student work, and what the target level of proficiency is. Results, which hold us accountable to the goals and outcomes we set, are a product of assessment and contribute to the discussion of student learning results. By performing assessment, faculty and staff are able to show prospective students, current students, parents, General Administration, and all concerned people what outcomes guide learning in the program, and what the results of those learning efforts are.

Finally, assessment has a fundamental value in that it provides evidence for the University to maintain its accreditation. Accreditation is a certification awarded by an external recognized organization to indicate that the institution or program meets their standards. For The University of North Carolina at Greensboro as an institution, our accrediting body is the Southern Association of Colleges and Schools (SACS), which is non-governmental and made up of our peer institutions in the south. Many academic programs have their own accrediting bodies, such as the Accreditation Board for Engineering and Technology (ABET), the National Council for Accreditation of Teacher Education (NCATE), and the Association to Advance Collegiate Schools of Business (AACSB). These organizations expect that student learning outcomes have been set, that programs are measuring how well students are acquiring the outcomes, and that programs are both improving those areas where students are not performing and are growing the program in pace with their peers. Assessment is the foundation of accreditation, since it provides evidence to the accrediting body that the program or institution is meeting their standards.

¹ United States Department of Education. (2006). *A test of leadership: Charting the future of U.S. higher education*. Washington, D.C.

What is assessment?

Summary

- Assessment is “the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development.”
- Faculty are responsible for academic assessment of student learning.
- Gathering data about student learning is useless if the data gathered is not *used*.
- At The University of North Carolina at Greensboro, assessment consists of an assessment plan (program mission/purpose, student learning outcomes, measures, and targets), and an assessment report (findings and an action plan).

Assessment has been a part of education for as long as there has been teaching. Fundamentally, assessment is the evaluation of student achievement. It is done both formally and informally in many classes on a daily basis, where a teacher might give a pop quiz (formal) or read students’ body language – like puzzled looks – to know that a topic is not sinking in (informal). At the end of a semester, many faculty reflect on a course, keeping or changing lessons or assignments based on how they contributed to students’ understanding of the subject. However, program assessment is taking the evaluation to the next level to understand how the parts and processes of a curriculum are working together to result in student learning.

Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development.²

Assessment can be defined differently on different campuses, but the fundamentals do not change. Assessment involves, first, faculty identifying a system that makes sense to understand the learning of students in their particular program. Second, faculty must implement that system to collect data about student learning. Third, program faculty review the data and decide upon its meaning. Fourth, faculty decide what action(s) needs to be in place to improve learning. Finally, faculty implement those actions. The cycle is repeated annually in order for faculty to assure that the program is providing better opportunity for student success (a.k.a continuous improvement).

Two important points to make are related to the assessment process. First, assessment is a faculty-driven activity. In any given program there is not just one faculty member teaching, and there should not be just one faculty member evaluating that learning or completing an assessment report. All faculty contributing to an academic program should be given the opportunity to have a voice in its assessment. By opening up the discussion about what students should be learning, how faculty are teaching their subjects, and what students actually learn, a clearer picture to improve the program can develop. Assessment should not be an activity undertaken by a single faculty member; a group of faculty will assess a program better than a single person.

² Palomba, C.A. and Banta, T.W. (1999). *Assessment Essentials: Planning, Implementing, and Improving Assessment in Higher Education*. San Francisco: Jossey-Bass Publishers.

The second point is that gathering data about student learning is useless if the data gathered is not *used*. An assessment plan put together with idealistic student learning outcomes, nationally recognized standardized tests, and sophisticated statistical analysis are not commendable if the program faculty do not use the results for decision making. Assessment plans should reflect realistic learning in the program, measures that indicate student learning in this program, and evaluation processes that faculty respect. Meaningful data to faculty is more likely to lead to meaningful improvement in the program by faculty.

At The University of North Carolina at Greensboro, assessment is reported through assessment plans and assessment reports. An assessment plan is made up of the program mission/purpose, student learning outcomes, measures, and targets. Assessment plans need to be in place at the start of the academic year. An assessment report is the findings and an action plan. These are completed after the academic year has ended and are usually due in early fall. Plans and reports at UNCG are reviewed by the Student Learning Enhancement Committee (SLEC), with feedback provided by the end of the fall semester. SLEC is authorized by the Faculty Senate and is held accountable to them. Academic assessment at UNCG is the responsibility of the faculty.

Faculty are responsible for student learning. They are also responsible for the success of their programs. These two parts come together in annual academic assessment planning and reporting.

When do we do assessment?

Summary

- Assessment occurs annually, in sync with the Academic Calendar that runs from July to June.

The calendar of assessment at The University of North Carolina at Greensboro is, simply, synched to the academic calendar. That is, we prepare our assessment plans at the start of the academic year and we report our findings and analysis at the conclusion of the year.

Mission or Purpose Statement

Summary

- Each program at UNCG must have a mission or purpose statement.

A mission or purpose statement is a clear statement of the broad aspects covered within a program. This statement addresses the student learning in the program but may also include the guiding principles or philosophy of the program. This statement should be succinct (75 - 100 words), but should still convey how the unit or program supports the mission of the institution and the mission of the College or School.

Mission Example: The mission of the Baccalaureate program in Ethnohistory is to provide students with the educational experiences and environment that support the mastery of knowledge in history and archeology, provide hands-on experience in archeological sites, develop mentoring relationships between students and both historians and archeologists, introduce students to the use of primary resources for original research, and develop strong communication skills, all while putting hands-on learning in a historical context. The program is committed to introducing students to cultural diversity, ethical treatment of relics and resources, and appreciation of the integration of world history.

Each program at UNCG must have a mission statement that communicates clearly what it does, which should be unique from other programs. An alternative to the mission statement is the program's purpose statement contained in the university's bulletin. This statement is acceptable if it contains the student learning outcomes identified in the program. Each program should have one or the other of these statements.

Rubric Application

- Mission or purpose statement is a clear statement of the broad aspects covered within a program.
- This statement addresses the student learning in the program.
- Mission statement is aligned with the University mission.
- Mission statement is aligned with the College/School's mission.

Student Learning Outcome Statements

Summary

- Student learning outcomes reflect what a program's faculty have identified as the primary knowledge, skills, or values their students will demonstrate upon completion of the program.
- Accredited programs should refer to their accrediting body for guides to defining student learning outcomes. If the program is unaccredited, other institutions' assessment plans or professional organizations can suggest student learning outcomes.
- Student learning outcomes should be SMART: Specific, Measurable, Attainable, Results-oriented, Time-bound.

Student learning outcomes (SLOs) at The University of North Carolina at Greensboro describe what a program's faculty have identified as some of the primary knowledge, skills, or values that students graduating from the program will demonstrate. They are aligned with the program's mission or purpose statement. SLOs often remain in place for several years since they reflect the program's mission. They are not permanent, however, and a program should reconsider SLOs as a program evolves to reflect changes in the University, academic field, or priorities among the faculty. At UNCG, each program should have no fewer than 3 SLOs.

Defining Student Learning Outcomes

The Office of Academic Assessment can help departments phrase or rephrase their programs' outcomes. It is often a matter of referring to the mission or purpose statement to see what students should expect to know or do upon graduation. There are other resources, too, which include their peers or professional organizations.

If your program is not accredited, you should research student learning in the web sites of your professional organizations. There are some examples of assessment plans on the OAA web site, or you may be able to find other examples on your own. There is no need to recreate the wheel! If you find a SLO that has the essence of the learning in your program, you should be able to revise it to suit your program.

For accredited programs, faculty should consult the standards set by their accrediting bodies. The intention of assessment at UNCG is not to duplicate assessment efforts. If a program needs to respond to student learning outcomes set by an external accreditor, then their internal assessment plan should reflect those same standards. The Office of Academic Assessment can help structure the assessment plan to meet both needs.

Wording SLOs

The wording of student learning outcomes should be chosen to concisely communicate what the students will know, do, or value. Concrete action verbs should indicate the specific behavior students will perform. The verb that is selected to describe the outcome also communicates a level of proficiency, and should be selected with care. For example, "understand" is a much

weaker verb than “analyze” or “justify.” Bloom’s Taxonomy or a similar tool can be useful for guidance.³

S.M.A.R.T.⁴

Student learning outcome statements should be “S.M.A.R.T.” (Specific, Measurable, Attainable, Results-oriented, Time-bound.), a mnemonic first attributed to George Doran in reference to performance goals. The University of Central Florida suggests using them for SLOs, since the criteria also work here.

Specific: Outcomes must clearly communicate to any reader what the student will be able to know, do, or value.

Measurable: You must be able to gather evidence that the students have learned this outcome. Students can easily demonstrate writing skills, but it may be harder to demonstrate “sensitivity.” You must be able to correlate directly what the students do (a test, inventory, or other work product) to the student learning outcome. SLOs cannot be loosely measured, which should be considered when writing the SLO.

Attainable: Students must be able to achieve this student learning outcome in this program. “Students will be able to apply basic research methods, including research design, data analysis, and interpretation” is attainable in most learning environments. “Students will build their own operational one-man submersible” is an SLO that might be appropriate for very few, well-funded programs.

Results-oriented: Outcomes should state that end result and not the process for getting to the result. For example, “Students will continuously explore the benefits of diversity in politics and culture,” does not provide a result to assess. “Students will justify the selection of one marketing model over another for a final project” is results-oriented.

Time-bound: Because of the structure of academic assessment, there is an implied boundary of time. For academic programs, the implication is that the students will acquire the skill upon completion of the program. If a program intends to use different bench marks of time to assess specific learning, this should be clearly stated in the SLO.

Student Learning Outcome Example: Students produce competent presentation drawings across a range of appropriate media.

Students (subject) produce (verb) competent presentation drawings (object) across a range of appropriate media (modifiers).

Note: SLOs should not have more than one learning outcome (i.e. not be compound). E.g. Students compute complex math equations **and** are able to explain them to non-math peers.

³ Bloom’s Taxonomy divides learning into six domains, with increasing levels of skill. See the UNC-Charlotte web page for additional information: <http://teaching.unc.edu/resources/best-practice-articles/goals-objectives/objectives-using-bloom>.

⁴The University of Central Florida (February 2004). *UCF Academic Program Assessment Handbook*.

Rubric Application

- SLOs are aligned with the mission and goals.
- At least 3 SLOs exist, but no more than 20 SLOs.
- All SLOs use concrete action verbs to indicate the specific behavior that will be performed (e.g. Bloom's Taxonomy).
- A single SLO statement should not have more than one learning outcome.

Measures

Summary

- Measures describe the work products that students provide to show what they have learned and how well they have learned it.
- Each student learning outcome must have at least one direct measure, although more than one is preferred.
- There are two types of measures, direct and indirect. Direct measures provide evidence of learning, while indirect measures do not.
- Assessment and grading are different.
- Assessment pertains to individual components or learning outcomes. Grades are comprehensive.
- The data collection process (DCP) describes who is assessed, how they are assessed, and by whom they are assessed.
- A clear DCP suggests validity in the assessment process.

The "Measures" data type at UNCG is made up of two parts, measures and the data collection process. First, measures state what students will do to demonstrate the student learning outcomes. Second, the data collection process (DCP) tells what the data collection process is. Each of these parts is important in describing how student learning is assessed.

Measures

Measures describe the work products that students provide to show what they have learned (SLO) and how well they have learned it (proficiency). Measures can be direct, where the students actually produce something to show that they have learned it. Measures could also be indirect, where students do something related to learning that suggest they have learned the outcome. Indirect measures are harder to correlate to learning than direct measures are. What is important is that, whether it is direct or indirect, the measure must gather evidence of (match) the SLO (validity).

Direct measures are more powerful because they require a student to demonstrate the skill identified in the outcome. Direct measures require the student to provide proof identified by the faculty as valid evidence that they have the learning. Direct measures include student work products like research papers, portfolios, theses, specific exam questions, and performances. Each student learning outcome must have at least one direct measure, although more than one is preferred.

Direct Measure Example: Students taking ESS 468 present the results of their practicum in a 20-minute oral presentation, describing the exercise program they designed during the practicum, the issues that arose during the program, their problem-solving approach to the issues, and the adjustments made to the program based on the issues.

Indirect measures are weak evidence because the student does not directly demonstrate they have learned the student learning outcome. Indirect measures ask for someone's opinion or perception about student learning outcomes that are otherwise measurable by the faculty. Student surveys, alumni surveys, employer or internship surveys, and job placements are examples of indirect measures.

Indirect Measure Example: Supervisors who oversee students on their internships will be asked in a survey at the end of the internship if the student demonstrated proficient critical thinking skills for the workplace, responding on a 5-point Likert scale.

Grades as a Measure

Assessment and grading are different, and the main difference lies in what is being assessed. When a grade is given, it is usually comprehensive in that it is allocated to the entire work. Because there are probably several components that are being assessed, such as the writing, content, critical thinking, etc, the grade does not allow you to analyze any one of the components. A rubric, which facilitates (for the faculty member and the student) the breakdown of a student's performance on an assignment into several categories and several scores, permits the use of an assignment to show a student's learning on a single outcome. However, the grade as a whole cannot be used. Assessment is the evaluation of a single component or skill (writing ability, content knowledge, etc.). Grades, therefore, are not used for assessment.⁵

⁵ There may be rare circumstances in which a grade in a course (and thus the course student learning outcome) aligns directly with a single student learning outcome for the program. Only in this case could a grade be used for program assessment.

This chart was taken from Southern Illinois University – Edwardsville some years ago. It provides a neat summary of the difference between assessment and grades.

<u>Assessment</u>	<u>Grades</u>
Formative	Summative
Diagnostic	Final
Non-Judgmental	Evaluative
Private	Administrative
Often Anonymous	Identified
Partial	Integrative
Specific	Holistic
Mainly Subtext	Mostly Text
Suggestive	Rigorous
Usually Goal-Directed	Usually Content-Driven

Data Collection Process

The data collection process (DCP) describes who is assessed, how they are assessed, and by whom they are assessed. This is the second part of the measure, completing the picture of the assessment process.

The set of students evaluated (“who”) can represent the entire program or just part of it, depending upon who is assessed. The decision to use the students in one class may alter the measure’s results, and thus the information faculty can learn about their program. However, a random sample of students can adequately represent all seniors if it is selected carefully. It is therefore important that the explanation of who is evaluated be provided, to show that faculty in the program understand the representative quality of the population that is assessed.

“How” students are assessed refers to the scoring or evaluation of the student’s work. If a rubric or a rating scale of some sort is used, this is the place to describe it. An evaluation using the VALUE rubrics from AAC&U shows that a valid instrument is being used, and assures anyone looking at the assessment plan that results have the potential to be strong. Even a rubric designed by the faculty offers validity. This is the place to describe how the work is evaluated.

Finally, “by whom” will indicate the reliability of the results. For example, one reader will provide less credibility to the results than 3 faculty readers. A process in which faculty are trained on a rubric and inter-rater reliability is recalibrated often shows that the objectivity of the results matter to the faculty. A process in which the faculty member teaching the course does the evaluation is valuable, but not as much as the previous design.

The full description of a “measure”, therefore, describes the student work and the process by which it is evaluated. The following is an acceptable example of a complete measure:

Measure Example: Students taking ESS 468 present the results of their practicum in a 20-minute oral presentation, describing the exercise program they designed during the practicum, the issues that arose during the program, their problem-solving approach to the issues, and the adjustments made to the program based on the issues. All graduating seniors in the course are evaluated by the faculty member teaching the class and a second faculty member. A 4-point departmentally-developed rubric is used, evaluating students as Excellent, Good, Fair, or Poor. The rubric is attached. Each year, the faculty members who will be doing the evaluation are retrained to ensure inter-rater reliability.

Rubric Application

- There is at least one direct measure for each Student Learning Objective (SLO).
- Content assessed by the measures matches the SLOs (content validity).
- Data collection process (DCP) is clearly explained.
- DCP utilizes two or more trained raters for assessment.
- DCP measures the gain in performance via pre/post.
- Multiple measures are present, allowing for triangulation.

Targets

Summary

- Targets succinctly communicate a quantifiable level of accomplishment for a particular measure.
- Targets must always indicate what is expected to be achieved in a single academic year.
- Targets must have specific numbers in them which indicate the level of accomplishment for the measure. (e.g. 90%, 3 out of 5 or higher, 18 out of 25 points)
- Targets must define levels of achievement so that anyone can understand them. Words like “satisfactory” or “successful” must be defined.

Targets succinctly communicate a quantifiable level of accomplishment for a particular measure. Targets must always indicate what is expected to be achieved in this single, current academic year. In Compliance Assist!, targets are entered in the Finding data type.

Targets must have specific numbers in them which indicate the level of accomplishment for the measure. Targets can indicate a number or percentage of students who will perform at the designated level, or they can indicate a designated level of proficiency, or both.

In this example, the target is the percentage of students who will demonstrate the skill (all or nothing, essentially): 90% of students completing the program will correctly use MathCad to create arrays of data and appropriate graphs of the data for completion of problem sets.

In this item, the level of proficiency is indicated as “master’s-level knowledge of 5 examples”: Students who defend a master’s thesis will demonstrate master’s-level knowledge of 5 examples of post-modern architecture.

In this example, two targets indicate the percentage of students and an expected level of proficiency: 80% of students will earn 27 out of 35 points on the organization portion of the final project rubric.

Specifics

Targets must be clear, not just in numbers but in words. “Satisfactory” and “successful” are positive, but they are not commonly understood. A better way to define these concepts is to share the rating scale. Does “satisfactory” mean 3 out of 5 points? Does successful mean fewer than 5 mistakes? Define a target so that the meaning is easily understood.

There is no easy rule for determining what the targets should be for any learning outcome. However, the faculty should have a rationale for defining a target, based on baseline data, previous student performance, external expectations (from GA or elsewhere), etc. Targets may change from year to year.

Rubric Application

- Target performance level for each measure is stated.
- Rationale is given for those targets/standards.

Findings

Summary

- Findings are the quantifiable data that result from completing the measures identified in the assessment plan.
- Findings should be phrased as the measures are to show the direct relationship.
- Specific numbers are essential in findings, but analysis should not be included.

At the end of the academic year, each unit must write an assessment report which consists of the findings and action plan(s). The first step is to collect the findings (or results) associated with each measure. Findings are merely the quantifiable data that result when the measures listed in the assessment plan are completed.

Findings should be clearly presented so that they reflect the statement indicated in the target. It should align with the measure. As with the targets, specific numbers are essential for findings. It is also advisable to include the sample size for context. (E.g. $n = 21$, n is the number of seniors in a capstone course)

Findings Example 1: Graduating student survey showed an increase of 3% in students who agreed that their writing skills improve because of the program between 09-10 and 10-11. (09-10: n=21; % agreed = 82) (10-11: n=27; % agreed = 85)

Findings Example 2: 81% (21) of students in ESS 468 earned a “Good” (3) or above on the rubric used to evaluate oral presentations. (n = 26)

It is important to also indicate the target level of achievement as “Met” or “Not Met”, as an indication that the faculty have recorded the success of the measure.

Rubric Application

- Findings are clearly presented.
- Status of the finding is indicated.
- Data provide evidence of target achievement level for some SLOs.
- Dissemination of results to appropriate stakeholders must be completed (e.g. faculty, advisory boards, students, accreditation agencies).
- Multiple periods of data are available.
- If multiple periods exist, trends or patterns over time are examined and discussed.

Action Plans

Summary

- It is necessary to define at least one intentional improvement for each academic program annually.
- It is essential that the action plan results from discussions among the program’s faculty. They should critically think about what the data says about strengths and weaknesses in student learning.
- The action plan must apply change to bring about improved student learning or knowledge about that learning (i.e. assessment).
- Action plans are the crucial step where data about students is *used* to improve learning.

It is necessary to define at least one intentional improvement for each academic program annually. The documentation of those intentions appears in the Student Learning Action Plans contained in Compliance Assist. An action plan can address a weakness in only one student learning outcome, or it can address larger issues that may have been identified in the curriculum or assessment process. It is essential that the action plan results from discussions among the program’s faculty, and that the plan applies change to bring about improved student learning.

Faculty teaching in the program should convene to look at the data. They should discuss what the data tells them about the program and its students. They should critically think about what the data says about strengths and weaknesses in student learning. That discussion can lead to discussions about the curriculum, prerequisites, course sequences, additional help for students, revisions in assignments, needs for additional data about particular student work, etc. If

particular actions were taken last year, what are the results following that action? If they were good, could they be implemented elsewhere or expanded to a larger group of students? This is the crucial step where data about students is *used* to improve learning.

An action plan is the follow-up steps to the assessment just conducted, and it should explain the rationale for the decision which generally relates to a finding. Actions should also be as specific as possible, and should show that faculty have thought through the results. When possible, a responsible person or persons should be identified to ensure the action takes place, and a target date given.

Action Plan Example: Based on the finding that students in the BA degree do not perform as well in critical thinking as students in the BS degree, the curriculum for the BA program will be revised to include an additional lab. The lab environment is the primary place where students identify and solve problems, and describe them in lab reports. This additional practice will not affect progress toward degree. The department curriculum committee will be tasked with initiating the process for this change, to be effective fall 2012 if possible.

Rubric Application

- At least one action plan exists that will produce a specific change in program, teaching methods, and/or curriculum.
- Action plan is clearly developed directly from, and is clearly aligned with, the findings.
- Actions are directed at improvements in program, teaching methods, and/or curriculum.
- Results demonstrated no need for action plan for improvement in the program.
- Action plans may also modify learning outcomes or assessment strategies.
- Responsibilities for actions are assigned.
- A target implementation date for action(s) is stated.