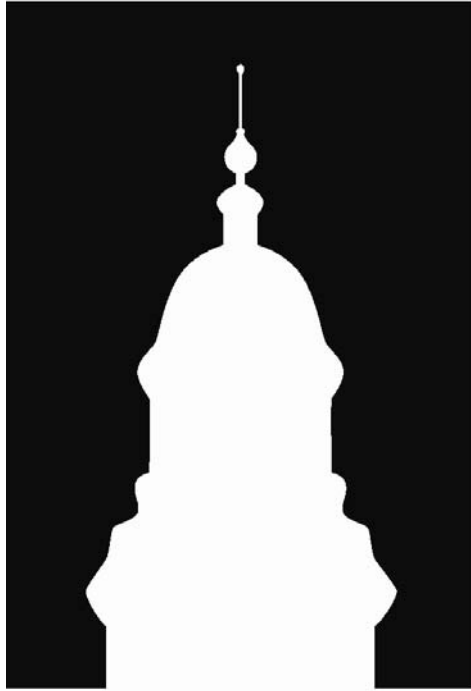


BROOKLYN



COLLEGE

Academic Assessment Resource Manual

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Office of the Director of Academic Assessment
Office of the Provost and Vice President for Academic Affairs

Fourth Edition

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Foreword

The 4th edition of the Brooklyn College Assessment Resource Manual represents a departure from earlier editions. Previous editions sought to recognize, publicize and document the evolution of an overall assessment process at Brooklyn College, while also providing some guidance for ongoing efforts. This edition incorporates much of what has been learned from the process since its inception and reflects the changes that have been made to date; including the creation and implementation of the new Core Curriculum. This edition is intended to focus more on providing information and resources to aid academic departments as they continue to work toward a systematic and sustained assessment program that helps us further our common purpose to increase student learning and thus further the mission of Brooklyn College.

The 4th edition includes material from previous editions, some of it extensively revised and/or rewritten, as well as updated material that has been adopted, with permission, from a variety of sources. In a number of places I have written new material to tie the manual together and provide, as much as possible, a single narrative voice.

A number of people have been instrumental in the preparation of this manual and leading the effort to implement a college wide assessment plan. First and foremost has been Provost Roberta Matthews who has made the advancement of student learning through assessment a central institutional priority. Colette Wagner handled this project in its early stages and has rendered invaluable assistance and sound advice. Dean Donna Wilson likewise has provided a great deal of support to this project and to the college's assessment efforts. I have benefited from the time and expertise of Alan Gilbert, Assistant Vice President for Finance, Budget and Planning and his Assistant Director for Outcomes Assessment Susan Kessler-Sklar, as well as Linda Suskie, Vice-President of the Middle States Commission on Higher Education. Helen Johnson and Ingrid Feeney prepared some of the materials and provided editorial assistance.

Michael J. Anderson, PhD,
Director of Academic Assessment,
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Introduction

Despite the fact that the movement toward academic assessment has been around for some time, it remains something that still mystifies and sometimes inspires fear, frustration, and resentment among both administrators and faculty. This manual provides an outline of the definitions, policies and guiding principles of our ongoing assessment efforts and practical resources for program and classroom assessment efforts. This manual, by communicating the basic terminology, principles, and policies associated with the assessment efforts of Brooklyn College will facilitate the activities of departments and individuals in building a sustainable culture of assessment across the entire institution.

Like other CUNY colleges which had Middle States site visits in the late 1990s, Brooklyn College received a recommendation to develop and implement an outcomes assessment plan. Work on this task began in December 2000. By November of 2001, the plan had been developed, submitted, and approved. It is a testament to the quality of the work done by the Outcomes Assessment Plan Committee (OAPC) that Middle States sought and received permission to forward the Brooklyn plan to other institutions faced with the task of developing one.

Using the College's mission as the foundation, the OAPC identified five categories in which outcomes assessment should take place. Three of these corresponded to three major goals in the College's strategic plan: academic quality, a student-oriented campus, and model citizenship in the Borough of Brooklyn. The other two categories were general student outcomes and institutional effectiveness. Of the five categories, responsibility for academic quality devolves primarily upon the faculty. This category was further divided, by the College's plan, into three areas: general education, learning in the major and in graduate programs, and faculty development and research.

Once the plan had been completed, the attention of the College shifted to its implementation. The original College Outcomes Assessment Steering Committee included among its members the chairs of the original subcommittees on general education, learning in the majors, the student-oriented campus, model citizenship in the Borough of Brooklyn, general student outcomes, and institutional effectiveness. In keeping not only with Middle States policies but with usual practice nationwide, each subcommittee decided on its own approach to planning and implementation of outcomes assessment.

The subcommittee on general education elected to begin its work by determining the level of faculty support for the College's most current attempt to articulate its educational aims. Thirty-two goals, which were initially developed by a team that attended the Asheville Institute on General Education in 2002, were subsequently refined and modified in response to recommendations from the rest of the faculty. This process resulted in the creation and approval of a new Core Curriculum, with 10 learning goals.

The new Core was approved by the Faculty Council in February 2005 and was fully implemented by the fall of 2006. The Core learning goals became college wide learning goals. The Council included assessment procedures in the new Core. It mandated that every Core course submitted for approval must include an assessment component that indicates the goals and objectives of the course, their relation to the goals of the Core Curriculum, and the specific ways in which fulfillment of course goals and objectives will be measured. The Council also mandated that every section of a lower-tier Core course will have a common set of outcomes that faculty teaching the course will address. And finally the Council required the establishment of a regular cycle of assessment for the Core, a process begun in 2006-07 under the leadership of the Director of the Core Curriculum and the Director of Academic Assessment.

The subcommittee on learning in the majors quickly enlarged its constituency by becoming a “committee” including all academic chairs. Specialists in outcomes assessment began by attending departmental meetings, to explain assessment to faculty; and by assisting the departments in beginning to develop and implement their own outcomes assessment plans. An introductory workshop on assessment in the spring of 2003 was followed by a series of divisional workshops in 2003-2004.

In fall 2003, the Provost convened an Outcomes Assessment Task Force to develop materials for the general education goals. All the members of the task force, regardless of their level of prior expertise in outcomes assessment, were motivated by the desire to develop a sustained culture of assessment at Brooklyn College. With the hiring of a full time director of academic assessment in the fall of 2006 the mission and membership of the Task Force changed somewhat. Its membership was made smaller by eliminating all non faculty, with the exception of the director of academic assessment. The Task Force continues to meet once or twice each semester to touch base and review how outcomes assessment is progressing in each and all areas. They also coordinates assessment activities college-wide and identifies areas of overlap, synergy, and possible cooperation.

The College’s chairs, recognizing that their departments are responsible not only for learning in the undergraduate majors and graduate programs but also for student progress toward the skills and competencies components of the College’s general educational goals, requested that one set of materials be developed for the goals on the survey administered by the subcommittee on general education, which could also be used for generic program goals. The *Manual*, including this most recent edition, is the concrete result of the request by the chairs for generic materials they may wish to include in their program-specific outcomes assessment materials.

Part I: Introduction to Assessment: Concepts, Principles, and Definitions.

Overview of Assessment Principles and Concepts

Although assessment inspires a certain amount of trepidation and confusion among faculty in some ways it is straightforward. Assessment at its most basic level is defining what we want our students to know, identifying those educational experiences where that learning is expected to occur, collecting information about how well they are learning and making appropriate changes in light of the information gained. In many ways assessment is simply a way of systematizing and formalizing at the departmental/program level what individual faculty already do: review how well students are learning, reflect on whether they are satisfied with that level of achievement, and make changes to their pedagogy, courses, and curricula to improve student learning.

Assessment can be seen as a process of information based decision making. As professors, assessment calls us to apply the spirit of purposeful inquiry that informs our scholarship to an effort to understand in some detail the level of learning of our students. Assessment has been defined as “the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development.”* However, assessment is more than the collection of information. Assessment efforts need to be thoughtful, well planned, and sustainable. This, in turn, requires that before information is gathered, departments and their faculty are clear about their mission and develop explicit statements of their program goals and course objectives for learning and that they identify where these goals and objectives are addressed in the curriculum. Once information is gathered, educators must examine and use assessment results to improve educational programs. To this end assessment provides an opportunity for a department’s faculty to share information about student learning among themselves, and as a department, to make better-informed decisions about change.

It is essential that departments and faculty have ownership of program assessment. Contrary to some recent initiatives in higher education that seek to impose national standards, assessment insists that the discipline specific experts in the departments design and carry out the assessment program that best fits the needs of their particular programs. Particular learning goals and objectives need to come from the department’s mission and the cycle of assessing these goals needs to be planned by the department so that assessment can be ongoing and sustainable. The method(s) of assessing program goals needs to be appropriate to the discipline, number of students, and size of the faculty so that useful information results in a way that is cost effective and not overly burdensome to faculty. Last, but not least, any authentic assessment plan should preserve faculty

* Palomba, Catherine A. and Banta, Trudy W., “The Essentials of Successful Assessment” in *Assessment Essentials: Planning, Implementing, and Improving Assessment in Higher Education*. San Francisco: Jossey-Bass, 1999.

control over curriculum and course content. Assessment does not seek to dictate what content is taught, but rather simply asks programs to assess how well students are learning what a particular program offers.

Another fundamental principle of assessment is that it is focused on the learner, especially in the aggregate. Assessment seeks to provide information about what students are learning. It allows departments, programs, faculty, and students to have a fuller picture of the patterns of strengths and weaknesses in the knowledge and skills of students, especially, but not exclusively, those nearing completion of their program of study. The subject of assessment is student learning; not the instructor's teaching. It is also not about whether a particular individual "passes" or "fails" a particular course, but rather about how students as a group are doing compared to the standards set for them by the faculty in a particular program. It is a crucial element of assessment efforts that the **results** of individual techniques are not used to make decisions about promotion and tenure of individual faculty members nor are the results used to exclude students from the college, a particular program, or graduation.

It is crucial that the assessment process produce honest and useful results that are used by faculty and departments to inform ongoing efforts to improve student learning. Appropriate methods need to be chosen in order to address questions that the department and faculty find relevant to their programs. The standards of performance need to be appropriate to the level of the educational program. The assessment cycle should be designed to be both sustainable and useful. Finally, there needs to be an institutionalized, and documented, mechanism by which departments and their faculty routinely discuss assessment results and take appropriate action.

Finally, in order for assessment to really help improve student learning it is necessary that the process be approached in an open way. One of the tendencies of both the supporters and skeptics of assessment is to come to the effort with certain preconceptions about the results of the process. Although what can be called the assessment movement has arisen alongside, and been influenced by, other trends in higher education (for example, the scholarship of teaching and learning, active learning, problem based learning, learner centered instruction, learning communities, and contemplative teaching) at its best and most fundamental assessment includes many pedagogical approaches. Departments and faculty are asked, when undertaking assessment, to ask the kind of questions about student learning appropriate to their field and based on their expertise. They are asked to be open to the results obtained regardless of their particular preconceptions. Lastly, they are asked to respond to the results in an appropriate manner: to recognize, expand and celebrate the things that a program does well and/or to make appropriate changes geared to improvement.

Assessment Misconceptions

Assessment **is not** a new activity. Faculty already undertake assessment in their classes; for the most part, they don't make it explicit to themselves, colleagues, or students. Faculty already make changes in their courses based on their sense of how well students have learned the material; assessment allows such changes to be based on better information.

Assessment **is not** merely a “paper exercise.” It requires changes to documents at the heart of the academic enterprise, such as syllabi, and requires new documents, such as departmental assessment plans. But, unless the information gathered through assessment is used to make changes to improve student learning all the paper in all the department's file drawers will not constitute “assessment.”

Assessment **is not** something “the administration” or anyone else can do **for** a department/program. The mission and student learning goals of a department must be decided by the faculty. Faculty must also decide what to assess, how to assess it, and what uses to make of assessment information. Others can facilitate by providing information and training, but decisions must be made by faculty.

Assessment **is not** standardized tests—unless a department chooses to use them.

Assessment **is not** a way to pass judgment on individual students. It is not another way of gathering information to use to exclude students from the college, particular programs, or graduation.

Assessment **is not** a way of collecting information in order to pass judgment on individual faculty. Brooklyn College will not use assessment data to make personnel decisions. Faculty who engage in assessment activities at the departmental or college level are, however, providing valuable service to the college.

Brief Brooklyn College Assessment Definitions

One of the inevitable, though unfortunate, aspects of creating a culture of assessment is coming to some agreement on terms. Though terms like goal and objective have contested meanings, the definitions of the terms goal, objective, and outcome used in this manual have been adopted by the institution to facilitate consistency in talking about and documenting assessment efforts.

Goals state in broad terms what we would like students to know and be able to do.

Objectives differ from goals: while goals are broad and general, objectives state specifically and concretely the particular knowledge and skills that we want students to

develop in a course or courses. Generality in a goal is to be expected and welcomed, because there are many possible curricular and pedagogical paths to the development of an area of knowledge and/or a set of skills. Specificity and concreteness are to be expected in an “objective”: the word itself indicates that what is being stated is what the instructor or a group of instructors *intend that* students will know and be able to do because of a particular course.

For vocabulary (verbs) to use when creating objectives (“Students will be able to. . .”) please see Bloom’s Taxonomy in Part III. Regardless of one’s views of the taxonomy itself, it does provide a comprehensive list of active verbs that will facilitate the articulation of objectives.

Outcomes differ from objectives: as the word itself suggests, outcomes are the knowledge and skills that students *have in fact gained* through their experiences in a course or courses. When we design course assignments that link with objectives, we allow students to produce these outcomes within the class/classes they take. *Assessment of outcomes* is then simply a matter of measuring the student product against the objectives for the class/classes: we compare the actual learning with what we intended that students learn.

Part II: The Department and Program Level

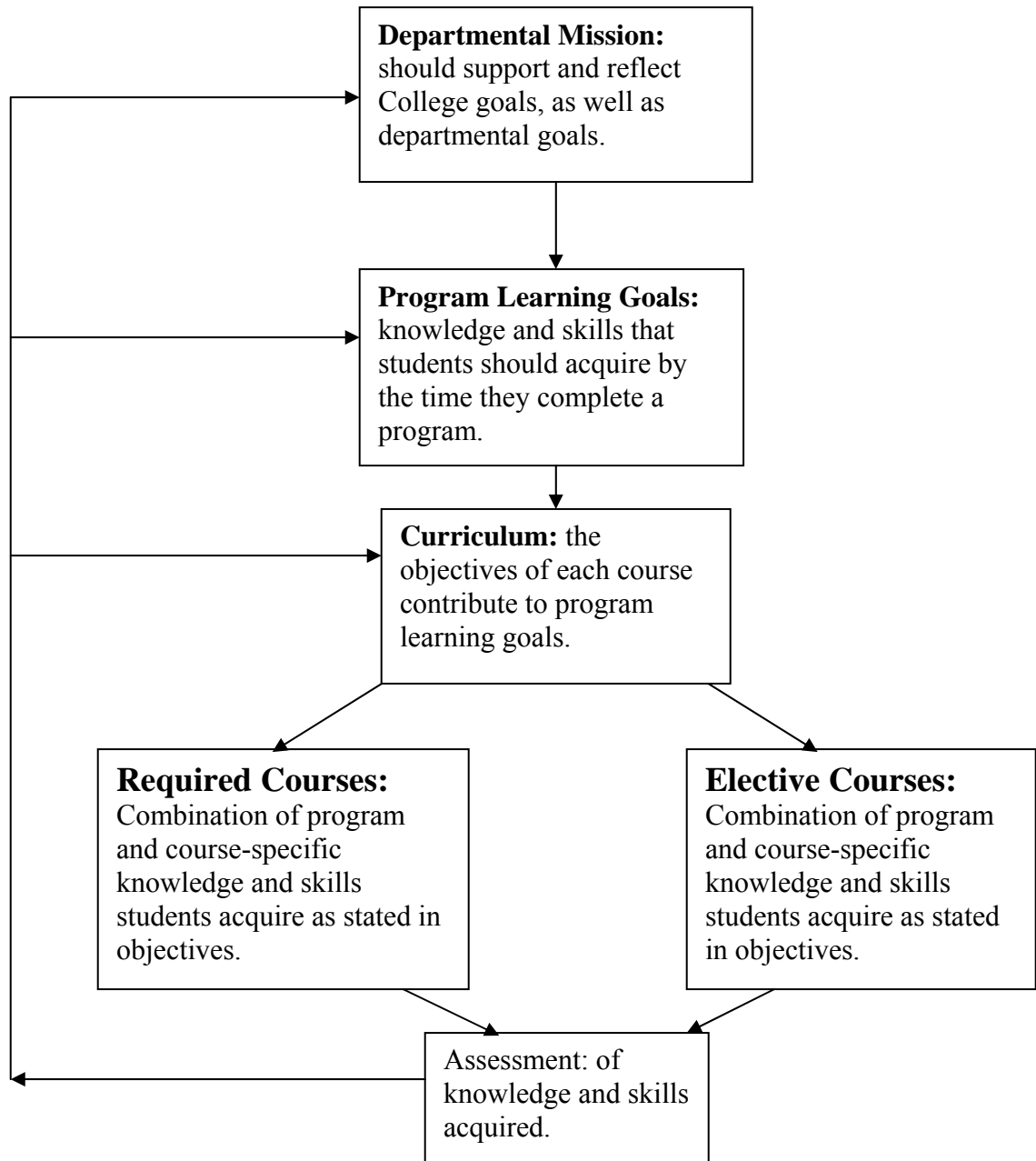
Introduction

One of the central ideas behind the creation of a departmental assessment plan is looking at the student learning in its program(s) of study. Although it might seem self evident it is useful to remember that students do not learn simply in a department but as part of a particular program of study housed within a department. A single department may have a number of different programs that may have different standards and/or requirements. Program level assessment seeks to answer the basic question: are students achieving the learning goals of a particular program of study? Of particular interest to a program should be understanding in some detail the patterns of strengths and weaknesses of the students at or near the completion of their studies. In order for assessment to yield meaningful results there needs to be a purposeful effort to examine what each program within a department is trying to accomplish in terms of student learning.

The learning goals of each program should flow from and be related to both the mission of the college and the mission of the department. They should reflect the priorities of the department in articulating the most important knowledge and skills that have been identified by the faculty. The course offerings for the department’s various programs need to provide opportunities for students to acquire and practice the skills and knowledge needed to meet the programs goals and objectives for student learning. Program faculty identify the particular courses in which students achieve the goals that have been stated. Faculty then take responsibility for modifying their syllabi to include objectives serving the department’s learning goals, as well as their own objectives for

students. The department decides how, when, and which of its goals to assess. The department decides how to use the information: pedagogy, courses, entire curricula, or even the department’s mission may be changed based on assessment findings. The flow chart below offers a view of the flow of the assessment process within a department and the next section offers specific planning advice for departments and programs.

Outcomes Assessment Flowchart



Constructing a Departmental Plan

In constructing a departmental/program assessment plan it is important to remember that in order for a plan to yield useful results it needs to be cost effective (in terms of both money and people's time), it needs to be sustainable, and it needs to ask questions that are useful for the department in order to improve. In addition, assessment plans themselves should be examined on a regular basis to insure that they are meeting these criteria. The basic steps in creating a plan are:*

1. Articulate or examine department's **mission**. (The mission is a brief statement, usually no longer than a few sentences or a brief paragraph. It should cover the full scope of the department's support for the College's mission, and therefore should not focus exclusively on the teaching of majors.)
2. State the **program goals** for student learning. (Goals follow from the mission statement; they articulate outcomes in general terms.)
3. Operationalize the goals as **program objectives** (which articulate outcomes in precise/concrete terms, so that they can ultimately be evaluated).
4. State **where in the curriculum** students gain the knowledge/skills: specific courses or other experiences, such as practica or internships. This is best accomplished with a grid or spreadsheet that allows one to see visually which courses/experiences correspond to which learning goals and allow the faculty in a program to insure that all the goals are dealt with at some point in the student's course of study in the program. **Course learning objectives correspond to and derive from program goals/objectives.**
5. Choose at least two measures to use to assess program goals. A good way to begin is with one direct measure and one indirect measure. A good example of a direct measure is review of senior work by faculty teaching seniors. If students take a licensure or certification exam, this is an excellent second direct measure. A relatively easy indirect measure is senior student surveys and/or focus groups asking three questions:
 1. How well did you achieve each of the following departmental learning goals use scale such as "extremely well, very well, adequately well, not very well, not at all" list each department goal, with scoring scale for each.
 2. What aspects of your education in this department helped you with your learning, and why were they helpful?
 3. What might the department do differently that would help you learn more effectively, and why would these actions help?

* The material in this section draws heavily from work by Barbara E. Walvoord, *Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education* (San Francisco: Jossey-Bass, 2004). And from various presentations in 2006-07 by Dr. Linda Suskie, VP for the Middle states Commission on Higher Education.

Other possible choices include alumni surveys and in, some fields, job placement rates will be important. The list on the next pages shows a variety of direct and indirect methods. It is crucial that the faculty in the program decide which methods are appropriate to their program and learning goals.

Examples of Evidence of Student Learning

C= evidence for course-level as well as program-level student learning

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) 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 (C)
- Portfolios of student work (C)
- 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 (C)
- Score gains between entry and exit on published or local tests or writing samples(C)
- Employer ratings of employee skills
- Observations of student behavior (e.g., presentations, group discussions), undertaken and with notes recorded systematically
- Summaries and analyses of electronic discussion threads (C)
- Student reflections on their values, attitudes and beliefs, if developing those are intended outcomes of the course or program (C)

Indirect Evidence of Student Learning

(Signs that Students Are Probably Learning, But What They Are Learning is Less Clear)

- Course grades (C)
- Assignment grades, if not accompanied by a rubric or scoring guide (C)
- For four-year programs, admission rates into graduate programs and graduation rates from those programs
- For two-year programs, admission rates into four-year institutions and graduation rates from those institutions
- 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 satisfaction

- Student ratings of their knowledge and skills and reflections on what they have learned in the course or program (C)
- Questions on end-of-course student evaluation forms that ask about the course rather than the instructor (C)
- Student/alumni satisfaction with their learning, collected through surveys, exit interviews, or focus groups
- Voluntary gifts from alumni and employers
- Student participation rates in faculty research, publications, and conference presentations
- Honors, awards, and scholarships earned by students and alumni

Evidence of Learning Processes that Promote Student Learning (Insights into *Why* Students Are or Aren't Learning)

- Transcripts, catalog descriptions, and course syllabi analyzed for evidence of course or program coherence, opportunities for active and collaborative learning, etc. (C)
- Logs maintained by students documenting time spent on course work, interactions with faculty and other students, nature and frequency of library use, etc. (C)
- Interviews and focus groups with students, asking why they achieve some learning goals well and others less well (C)
- Many of Angelo and Cross' *Classroom Assessment Techniques* (C)
- Counts of out-of-class interactions between faculty and students (C)
- Counts of programs that disseminate the programs' major learning goals to all the students in the system
- Counts of courses whose syllabi list the courses' major learning goals
- Counts of courses whose stated learning goals include thinking skills as well as basic understanding
- Documentation of the match between course/program objectives and assessments (C)
- Counts of courses whose final grades are based at least in part on assessments of thinking skills as well as basic understanding
- Ratio of performance assessments to paper-and-pencil tests (C)
- Proportions of class time spent in active learning (C)
- Counts of courses with collaborative learning opportunities
- Counts of courses taught using culturally responsive teaching techniques
- Counts of courses with service learning opportunities, or counts of student hours spent in service learning activities
- Library activity in the program's discipline(s) (e.g., number of books checked out; number of online database searches conducted; number of online journal articles accessed)
- Counts of student majors participating in relevant co-curricular activities (e.g., the percentage of Biology majors participating in the Biology Club)
- Voluntary student attendance at disciplinary seminars and conferences and other intellectual/cultural events relevant to a course or program (C)

Adopted from Dr. Linda Suskie, Middle States Commission on Higher Education

6. Next, the department needs to establish a **cycle** for assessing its program learning goals. The timeline of the cycle and the number and type of goals/objectives assessed in a particular semester and/or year is determined by the faculty in the program in consultation with the department. The guiding principles for the design of the cycle should be that it is **cost effective (in terms of both budget and faculty time and effort)** and that it is **sustainable**.
7. Finally, the department needs to **establish a documented procedure for analyzing and responding to assessment results**. The most straightforward way to do this would be to dedicate an annual department meeting to the discussion of assessment activities during that term. The advantage of this method is that it allows subsequent actions to be clearly documented through the regular process of department minutes and other standard documentation.

Reporting, Documenting and Sharing.

In order for assessment to make any sense the process and results from programs and departments need to be shared in appropriate ways so that results can be used. The uses of assessment results, as a matter of college policy, are not to be used punitively against individual faculty or to exclude specific students from the college. The process and results are to be used to make adjustments that will lead to improvements in student learning. In addition documentation has to be available so that accreditors can see our achievements in terms of student learning goals. Lastly, some examples of student work should be kept on file in the departments to document that the department has appropriate college level standards. The following template has been developed to provide a more or less uniform way for departments to report their assessment activities with the Director of Academic Assessment, administrators, accreditors, and faculty colleagues:

Template for Reporting Assessment Activities.

(Department) Assessment Plan

Mission Statement

Fill in department mission statement.

Program(s) Goals, Objectives, and Outcomes

1. For each of the department's individual programs, (i.e. BA, MFA) list the program learning goals (broad best limited to 3-6, but this is only a rough guide), learning objectives (more specific) and outcomes (what students will produce in order to demonstrate they have met goals and objectives (i.e. performances, papers, etc).

2. Grid showing which of the programs offerings covers which of the goals and/or objectives.

Assessment Cycle:

Goal/Objective to be assessed	Year	Method	Results/Data	Student Work Samples
				On file in department

Departmental Process for Analyzing and Sharing Assessment Results

The following is offered as an example:

The Department holds an annual meeting in the spring devoted to the discussion of assessment results and the general pattern of the strengths and weaknesses of the current graduating class relative to the department’s published mission, goals, objectives and standards. These discussions are the basis for the implementation of changes designed to improve student learning. Results are shared with all stakeholders via the college website and specific recommendations are forwarded to appropriate bodies including Faculty Council, Deans, Provost, and the Planning and Budget office.

Recent assessment driven actions: The Department’s actions as a result of the assessment cycle.

Part III: Classroom Assessment

Introduction

The assessment of student learning at the class room level in most ways mirrors the basic feedback loop structure. Instructors, guided by the mission of the department and the curricular needs of the program, decide on the learning objectives for their course. They then design classroom activities that allow students to learn and practice the particular knowledge and skills needed to meet the objectives, and finally, design and administer assessments in order to see where the class is relative to the objectives. The results obtained are used by the instructor to make changes designed to improve those areas of student learning that need improved and to recognize those areas of strength. A key difference from program assessment is that the results from the classroom level are largely for the use of the instructor and their students to improve learning. In addition since course learning objectives reflect program goals/objectives classroom results may be shared more widely in the department in order to further appropriate excellent practices, or to obtain resources for improvement.

Teaching Practices and Assessment

Patricia J. O'Connor

Because outcomes assessment represents a formalization and further development of activities in which faculty already engage, the question of what changes are really necessary often arises. Not unnaturally, faculty wish to know what they will have to do differently.

At the abstract level, the key to understanding what must be done differently is that the purpose of outcomes assessment is to *improve student learning*. In what follows, the sections on Grading and on Course Revision focus on the use of assessment information to improve student learning. Briefly to anticipate the points made there, however: there are four potential uses for assessment information. The first is to provide it to students (as feedback either to individuals or to the class as a whole); the second is to use it as a reason to provide additional opportunities to practice knowledge or skills within the current iteration of the course; the third is as a basis for revision of subsequent iterations of a course; the fourth is as a part of a department's discussion of whether it is achieving its program goals. All four of these uses hold out the potential for enhancing student learning. It is for this reason that accrediting agencies mandate not merely that assessment information be collected, but that it be used.

Since current teaching practices of faculty vary, the ideal way to answer the question of what changes are required by outcomes assessment would be for each faculty member to have a discussion with someone knowledgeable in assessment, bringing with him or her not only copies of the syllabi for all his/her courses but also assignment sheets, exams, and other materials for each course, as well as samples of student work. The College's Director of Academic Assessment is available to work individually with faculty and also

provides workshops on various topics for departments. In addition the College's Center for Teaching offers various activities related to assessment and the classroom.

Often faculty feel that their current practice is already “outcomes assessment” although they might express their objectives and ways of assessing them in a different way. Frequently, they are correct. Sometimes, current practice needs only a bit of tweaking to become assessment practice.

The discussion that follows, of the concrete differences outcomes assessment may require to existing teaching practices, was developed for faculty who would like a general overview of the differences between current and assessment-driven practice. Necessarily, given variations in individuals' teaching, not everything it portrays as a “change” will be one for all faculty.

Syllabus

Syllabi customarily focus not on student learning, but on what “the course” will do. A block of text, which typically follows the faculty member's contact information, office location, and so forth, describes—often in some detail—the course's aims, the course's content, and the course's main themes.

Outcomes assessment asks faculty to focus on student learning, and to make that focus clear in their syllabi. This need not mean abandonment of the description of the course; it does mean that syllabi should explicitly state, in concrete language, the faculty member's intentions for student learning. Some of these statements, called learning objectives, will be ones the department has agreed students should achieve in the course; others will be particular to the faculty member teaching it. (See Bloom's Taxonomy, which follows this section, for language ideas)

The pedagogical advantages of letting students in on the secret of the learning for which they are being held accountable are many. Not least of these is that students spend less time and energy trying to determine “what the Prof wants,” and more time and energy focused on the activity of learning the content and methodologies (i.e., knowledge and skills) of a particular course.

Assignments

Through the assignments they set for students, faculty usually already approach most closely the goal of outcomes assessment: improving student learning. Thus, this is an area of teaching in which outcomes assessment typically requires little change. Regardless of the form their assignments take, faculty have already designed them anticipating that doing them will help students *to* learn, and that the completed assignment will show what students *have* learned. (It is for this reason that, when a faculty member is “retrofitting” an existing course with outcomes assessment, the most fruitful way of determining his/her own objectives for student learning may be to query

the assignments, asking: what is it, exactly, that these show that I want students to demonstrate they now know, or now are able to do?)

What outcomes assessment asks faculty to add to their assignments, for the benefit of student learning, is an explicit connection to the learning objectives for the course. Again, this can be understood as a matter of letting students in on the secret; in this case, on the secret of how the assignment helps them both to develop and to display the knowledge and skills for which they are being held responsible.

The pedagogical advantages of this are profound. Especially in the case of courses in which knowledge, skills, and techniques are developed hierarchically, and therefore the closer students come to mastery of earlier material the more likely they are to succeed with later assignments, clearly stated connections among assignments and learning goals are extraordinarily helpful. Students are able to discern why early assignments are important. They are able to perceive that the course not only has a clear structure, but one that attempts to enable them to succeed in achieving the stated learning objectives. When coupled with assignment feedback that focuses on improvement, students often begin to move from a view of the professor as judge, or even adversary, to a view of the professor as intellectual mentor, invested in helping them to do well.

Exams

Like assignments, exams—whether multiple choice, short answer, essay, or some combination of the three—are designed to allow students to show what they *have* learned. Unlike their views of other assignments, however, faculty less often conceive of exams as a way for students *to* learn.

Outcomes assessment asks faculty to develop ways in which they can use the results of exams to further learning, rather than solely as a mechanism for generating a grade. Some faculty already do this. For example, some who use essay exams read aloud one or more successful responses to a question before they return blue books, pointing out to the whole class why these answers were successful. Research has shown that this can help students write better essays themselves. (Anecdotally: this technique, especially in conjunction with individualized feedback on what elements were missing from student answers, also tends to reduce the number of students who come to office hours with their blue books and the announcement “I don’t understand why I got this grade.” Instead, the professor is more likely to hear some form of “I still don’t get this material.”) Some faculty who construct their multiple choice exams in alignment with the student learning objectives already analyze student answers—both right and wrong—to the questions linked to various objectives, not only to discover for themselves where students have not learned as much as desired, but to report that information to the students, sometimes in conjunction with additional opportunities to review and to practice the relevant knowledge or skill.

Grading

As the discussion of assignments and exams implies, there is a profound difference between grading, understood as the practice of evaluating a piece of student work against a scale from zero to a hundred (or zero to four), and the type of feedback that arises from the attempt to improve student learning. Many, if not most, faculty reveal their understanding of this difference by the way they currently grade: few habitually engage in the parody of grading that consists of merely writing a score or a letter grade somewhere on the student's work, unaccompanied by comments.

Grading, as currently practiced, will continue in courses after they are informed by outcomes assessment. Assessment and grading, however, are not the same. Particularly when a department or program is collecting assessment information, the differences are crucial. Generally, courses have a range of knowledge and skill objectives, and grades—both on individual assignments and for the class as a whole—are based on the mastery of several such objectives. When a department or program is focused on how well students in all its courses are achieving a particular departmental/program learning goal, the composite “achievement score” represented by a grade is not useful: what is needed is assessment of one specific objective.

Even when a department or program is not assessing a goal across all the courses in which students are working toward it, assessment requires changes to the most commonly-used grading strategies. In the abstract, the differences between grading and assessment may be expressed in a number of ways. One useful way of understanding the difference is that assessment is concrete and specific, whereas grading is holistic. In grading, the focus is on the *entirety* of the student response to the assignment. In assessment, the focus is on what the student has learned in relation to a *single* objective. A grade is a composite score assigned to a piece of work based on the whole product, taking into account all the student has (and has not) done. Faculty members consider all the techniques, skills, and knowledge that are manifest in the work. Assessment focuses on specific, and specified, knowledge, skills, or techniques. Incorporation of assessment techniques not only allows for the collection of information on students' levels of mastery of the learning objectives; it also helps to make the grading process transparent. Students have a clearer understanding of the learning they need to demonstrate, and of the degree to which they have succeeded in doing so.

To see this holistic/specific difference more clearly, let's look at two examples of how assessment differs from grading, in two different types of things students are asked to do: a research paper and a multiple-choice exam. Assessment, in both cases, requires first that faculty focus not on the whole product (all that the student has done), but on the specific thing that the faculty member wanted the assignment to demonstrate that the student has learned. Secondly, assessment requires that faculty keep records of what they themselves learn about student achievement via this particular assignment, and that they make use of this information—either while the class is still running, or afterward.

First, the research paper. The grade a paper receives represents a compound of evaluative considerations. The type, number, and appropriateness of the source materials, the originality, interest, and sophistication of the thesis and argument, the correctness of the paper's grammar, spelling and syntax, and whether the mechanics of its bibliography are appropriate to the discipline—all may be taken into account when assigning a grade.

In contrast, assessment is specific: it measures evidence of student learning against a particular objective. We'll keep the example simple by supposing that, with this paper, the faculty member has chosen to assess progress toward only one objective; clearly, however, it is possible for a single assignment to provide a basis for assessment of several objectives.

Suppose the research paper is assigned in a course in which a student learning objective is "students will be able to use quotations, paraphrases, and appropriate documentation to support an argument." Before he or she assigned the paper, the instructor will have developed criteria not for a zero to one hundred point scale (or even for a zero to four point scale), but for distinguishing only three levels of student achievement (expressed by one national expert in assessment as "not good enough, good enough, better than good enough") of this objective. That is: for the purposes of assessment the professor specifies what characteristics, found in the students' papers, will be taken as evidence of each of these three levels of learning.

The faculty member then carries out assessment simultaneously with grading, using the criteria to evaluate how well quotations, paraphrases, and appropriate documentation are used to support the student's argument—while at the same time taking into account all the usual considerations s/he uses when grading papers. The assessment scores are recorded, just as grades are recorded.

At a time when this objective is a part of an ongoing departmental assessment of a program goal (in this case, the goal of effective writing), one additional step is required of the faculty member. In addition to recording how many papers fall into each of the three categories, s/he will also copy and retain at least one sample of a paper that falls into each category.

There are four distinct potential uses for the assessment information gathered by the faculty member, only one of which depends on whether the assessment has been mandated by the department or program. The first is to incorporate the information in feedback to students—either as individuals, or as a class. The second is to use it to modify the current iteration of the course, perhaps by incorporating additional opportunities to master the knowledge or skill. The third is to use the information to change future iterations of the course, and the last is to forward it to the department, where it forms part of the basis for discussion of whether the department is achieving its goals for student learning. (The last two of these four uses are discussed in more detail in the section on Course Revision, below.)

Our second example involves the material developed for an early version of the Core curriculum. The Outcomes Assessment Task Force members who worked on this general educational goal, the “ability to formulate and test hypotheses,” listed, as one sample objective, “Students will be able to differentiate between facts, hypotheses, and theories.” The associated sample assessment tool is a multiple-choice test, some questions in which will require students to select either “fact,” “hypothesis,” or “theory” for a given statement.

The authors of this material clearly are not proposing that an entire exam be given over to gathering evidence showing how far students have advanced toward this single objective (it is difficult to imagine a course in which this objective would be of sufficient importance to merit a whole test). In this situation, therefore, the overall exam grade would be directly analogous to the grade on the research paper: it would be a compound of evaluative considerations, only some of which are related to the learning objective of differentiating among facts, hypotheses, and theories. Hence the grade on the exam as a whole would be useless for the purposes of assessing what student learning in relation to this objective is good enough, better than good enough, or not good enough. Yet the information needed for outcomes assessment is there in the students’ answers, and we can see how the faculty member would get at the data s/he needs.

Before giving the exam, the instructor will have decided, taking into account variables such as how much practice students have already had in the activity and how important the objective is in the context of the class as a whole, what criteria will distinguish the three assessment categories of not good enough, good enough, or better than good enough. In the case of a multiple choice exam, these criteria are likely to be expressed in terms of how many correct answers are necessary out of the total number of questions related to a particular objective. The apposite questions are then separated from the rest of the exam (work that can usually be done by the optical scanner used for scoring), and the disaggregated data of correct answers to specific questions are then used to record how many exams fall into each category.

The assessment information gathered by this faculty member has the same four potential uses as that collected by the faculty member whom we imagined to be assessing students’ ability to use quotations, paraphrases, and appropriate documentation to support an argument. This instructor now has the option of giving students feedback on their progress toward the learning objective, and/or additional opportunities to practice it; s/he can use the information to revise subsequent iterations of the course; and s/he may be submitting the information to the department/program.

Course Revision

Faculty who teach a course repeatedly often engage in a conscientious attempt to improve it between iterations. In the relative calm of the summer, or the break between semesters, they tweak a course: add and discard readings; add, modify, or abandon assignments and exams; change the order of topics; develop new or additional themes and foci. Sometimes, after what seems to them to have been a particularly unsuccessful class, they

tear up the course entirely, and start over. No one either tweaks or begins again in a vacuum; the motivation for these activities is, of course, the sense that things didn't go as well as they might have. This sense is often a kind of intuition, based perhaps on such things as student complaints, or their lack of success on particular written assignments or exams, or the faculty member's difficulty in generating and maintaining a discussion of a particular text.

As the discussion of the difference between assessment and grading shows, assessment provides an evidentiary, rather than an intuitive, basis for changing the elements of a course. When the focus is on how well students have mastered specific learning objectives, and the instructor has not only delineated criteria for achievement of those objectives but also recorded how many students' achievements were good enough, better than good enough, or not good enough, he or she is well-positioned to explain what should be revised and why, and—more importantly—to change specific elements of the course in order to improve student learning in particular areas.

In addition, outcomes assessment information also provides a more concrete basis for course and curriculum discussions with colleagues. Many departments already have regular pedagogical discussions; sometimes, however, these are largely restricted to courses that are taught in multiple sections, usually by adjuncts as well as full-time faculty. When a department is conducting assessment of one of its goals for student learning, faculty not only of courses taught in multiple sections but at different levels in the hierarchy of the curriculum—wherever that goal has resulted in the adoption of a relevant learning objective—come together to discuss both assessment results and how to use them to improve student achievement. Because they are based in consideration of shared information, the resulting conversations tend to be both richer and more productive than the more informal conversations that usually occur, and may lead to better pedagogy (defined as pedagogy which is more productive of students indeed learning what faculty intend that they learn) and to revision of the department's curriculum, as well as of individual courses.

Bloom's Taxonomy - Cognitive Domain

(Modification based on works of Kibler, et al., Groundlund as posted by University of Mississippi School of Education http://www.olemiss.edu/depts/educ_school2/docs/stai/stai_2002a.pdf)

Descriptions of Levels of Learning	Illustrative Verbs
<p>1. Knowledge – remembering previously learned material. This skill may involve recall of a wide range of material, from specific facts to complete theories, but all that is required is the bringing to mind of the appropriate information. Knowledge represents the lowest level of learning outcomes in the cognitive domain.</p> <p>2. Comprehension – the ability to grasp meaning of material. This skill may be shown by translating material from one form to another (words or numbers), by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects).</p> <p>3. Application – the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories.</p> <p>4. Analysis – the ability to break down material into its component parts so that its organizational structure may be understood. This skill may include the identification of the parts, analysis of the relationship between parts, and recognition of the organizational principles involved.</p> <p>5. Synthesis – the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech), a plan of operations (research proposal), or a set of abstract relations (scheme for classifying information).</p> <p>6. Evaluation – the ability to judge the value of material (statement, novel, poem, research report) for a given purpose. The judgments are to be based on definite criteria. These may be internal criteria (organization) or external criteria (relevance to the purpose) and the student may determine the criteria or be given them.</p>	<p>1. Knowledge – enumerate, define, describe, identify, label, list, match, name, outline, recall, recite, recollect, relate, reproduce, select, state</p> <p>2. Comprehension – change, construct, convert, decode, defend, define, describe, distinguish, discriminate, estimate, explain, extend, generalize, give example, illustrate, infer, paraphrase, predict, restate, rewrite, solve, summarize</p> <p>3. Application – apply, change, compute, demonstrate, develop, discover, dramatize, employ, illustrate, interpret, manipulate, modify, operate, organize, predict, prepare, produce, relate, solve, transfer, use</p> <p>4. Analysis – analyze, breakdown, classify, compare, contrast, determine, deduce, diagram, differentiate, distinguish, identify, illustrate, infer, outline, point out, relate, select, separate, subdivide</p> <p>5. Synthesis – categorize, combine, compile, compose, conceive, construct, create, design, devise, establish, explain, formulate, generate, invent, make, manage, modify, organize, originate, plan, propose, rearrange, reconstruct, relate, reorganize, revise, rewrite, set up, summarize, tell, write.</p> <p>6. Evaluation – appraise, ascertain, choose, compare, conclude, contrast, criticize, decide, defend, describe, discriminate, explain, interpret, justify, relate, resolve, summarize, support, validate, write (a review).</p>

Bloom's Taxonomy - Affective Domain

(Modification based on works of Kibler, et al., Groundlund as posted by University of Mississippi
School of Education http://www.olemiss.edu/depts/educ_school2/docs/stai/stai_2002a.pdf)

Descriptors of the Major Categories in the Affective Domain	Illustrative Verbs
<p>1. Receiving – willingness to receive or to attend to particular phenomena or stimuli (classroom activities, textbook, assignment, etc.). Receiving has been divided into three subcategories: <i>awareness</i>, <i>willingness to receive</i>, and <i>controlled or selected attention</i>. From the teaching standpoint, receiving is concerned with getting, holding, and directing the student’s attention.</p> <p>2. Responding – refers to active participation on the part of the student. The student is sufficiently motivated not to just be <i>1.2 Willing to attend</i>, but is actively attending. Responding indicates the desire that a student has become sufficiently involved in or committed to a subject, activity, etc., so as to seek it out and gain satisfaction from working with it or engaging in it.</p> <p>3. Valuing – the student sees <i>worth</i> or <i>value</i> in the subject, activity, assignment, etc. An important element of behavior characterized by <i>valuing</i> is that it is motivated, not by the desire to comply or obey, but by the individual’s commitment to the underlying value guiding the behavior. Learning outcomes in this area are concerned with behavior that is consistent and stable enough to make the value clearly identifiable.</p> <p>4. Organization – bringing together a complex of values, possible disparate values, resolving conflicts between them, and beginning to build an internally consistent value system. The individual sees how the value relates to those already held or to new ones that are coming to be held. The integration of values is less than harmonious; it is a kind of dynamic equilibrium that is dependent upon salient events at a specific point in time.</p> <p>5. Characterization by a Value or Value Complex – internalization of values have a place in the individual’s value hierarchy. The values have controlled one’s behavior for a sufficiently long period of time to have developed a characteristic “life style.” The behavior is pervasive, consistent, and predictable.</p>	<p>1. Receiving – acknowledge, ask, attend, be aware, choose, describe, follow, give, hold, identify, listen, locate, name, receive, reply, select, show alertness, tolerate, use, view, watch</p> <p>2. Responding – agree (to), answer, ask, assist, communicate, comply, consent, conform, contribute, cooperate, discuss, follow-up, greet, help, indicate, inquire, label, obey, participate, pursue, question, react, read, reply, report, request, respond, seek, select, visit, volunteer, write</p> <p>3. Valuing – accept, adopt, approve, complete, choose, commit, describe, desire, differentiate, display, endorse, exhibit, explain, express, form, initiate, invite, join, justify, prefer, propose, read, report, sanction, select, share, study, work</p> <p>4. Organization – adapt, adhere, alter, arrange, categorize, classify, combine, compare, complete, defend, explain, establish, formulate, generalize, group, identify, integrate, modify, order, organize, prepare, rank, rate, relate, synthesize, systemize</p> <p>5. Characterization – act, advocate, behave, characterize, conform, continue, defend, devote, disclose, discriminate, display, encourage, endure, exemplify, function, incorporate, influence, justify, listen, maintain, modify, pattern, practice, preserve, perform, question, revise, retain, support, uphold, use</p>

Part IV: The Policy Context

Introduction

The “assessment movement” has grown up alongside and influenced by a variety of other trends in higher education. All, to one degree or another, are symptomatic of a larger shift in society’s view of the quality of educational institutions. Increasingly there is a growing shift away from a definition of institutional quality that looks primarily at such factors as peer ratings and the quality of incoming students; towards one that defines institutional quality by the quality of its graduates. Numerous debates surround this transition, but one consequence is that assessment, in addition to providing information used to improve student learning also provides an institution and its stakeholders, information that can help document its achievements in terms of student learning and allocate resources efficiently.

Assessment and Accountability

There are two external sources of the mandate to conduct assessment in higher education, each of which has a different motivation. The first source is the accrediting bodies whose purpose is to ensure that either whole institutions or individual programs within those institutions are worthy to grant degrees; the focus in this case is on outcomes assessment, on the improvement of learning. Legislators, usually at the state and national level, constitute the second source of the assessment mandate. They are primarily (although not always) interested in accountability.

Accrediting agencies are interested in institutions/programs demonstrating both that their students are learning what they themselves have decided students should learn, and that the institutions/programs are actively engaged in a process of trying to improve students’ learning.

Colleges and universities engaged in assessment are enjoined to use whatever combination of methodologies they believe best suits their mission, including their goals for student learning. Everything is under local control. The institution is held accountable for whether assessment is taking place, and for how well it is being done, with an emphasis on how the results of assessment are being utilized to improve student learning. Usually, institutions respond by delegating responsibility for assessment in specific majors to the departments offering them, retaining centrally the responsibility for assessing student learning in general education.

Accrediting bodies that evaluate entire institutions are geographically (regionally) based; CUNY institutions are accredited by the Middle States Commission on Higher Education. The regional agencies that were early adopters of outcomes assessment are primarily located in the West and Midwest. Middle States was a late adopter, and even after incorporating the standard did not at first make rigorous use of it in evaluating institutions. That has now changed. As early as its 1999 round of site visits to CUNY campuses, Middle States reports included recommendations for improvement of outcomes

assessment. In the past few years, however, it has placed increasing emphasis on the requirement that CUNY institutions make progress on this front; we can confidently anticipate that each institution's outcomes assessment program will be subject to serious scrutiny in upcoming site visits.

Accrediting bodies that evaluate individual academic programs have national scope. Education programs at CUNY colleges are accredited by the National Council for Accreditation of Teacher Education (NCATE). At Brooklyn College, accredited programs include those that have been evaluated by the American Speech-Language-Hearing Association (ASHA), the American Dietetics Association (ADA), and the Council on Education for Public Health (CEPH). Each agency has adopted outcomes assessment as a standard for evaluation at a different point in its history, and has in turn used it for evaluation of institutions or programs.

At the federal level, the current discussion around the pending reauthorization of the Higher Education Act has made it increasingly clear that state and national politicians are interested in obtaining additional data on student achievement from institutions of higher education. Federally funded grant agencies have for some time been required to produce an accounting of where their money has gone and what results it has produced. It is also clear that information currently being reported, such as graduation and retention rates, will no longer constitute a sufficient demonstration that the tax dollars supporting higher education have been wisely invested. It is perhaps not surprising that political attention has now turned to demanding greater accountability from higher education.

Under accountability, the design of the tests, the learning standards against which students are measured, and the methods of determining their levels of achievement are not under the control of individual schools. Because the "standards movement," as it is sometimes called, has been driving K-12 education for some time, we are all at least somewhat familiar with what this has meant for schools, for teachers, and for students. These tests are often called "high-stakes" tests, since children who do not pass them are variously not allowed to proceed through school, not allowed to graduate, and so on. Assessment, with its fundamental principles of faculty control, provides an alternative that truly fosters deeper student learning without compromising the rigorous standards traditionally associated with higher education.

Uses of Assessment Information

It is important in discussing aspects of information gained from the assessment process to distinguish between the documentation of *assessment activities* and the *results* obtained from those activities. The College and its various departments are mandated by its various accreditation bodies, CUNY and its own Mission and strategic plan, to carry out and document assessment activities. The evidence of these activities needs to be shared with the appropriate administrators, including the Director of Academic Assessment, in order that they may prepare required reports for CUNY, the Middle States Commission on Higher Education and/or other accrediting bodies, and carry on the basic business of the college. In addition, the results of program level assessment activities need to be

made available for appropriate use by the college. It is the stated policy of the college, CUNY, and the Middle States Association, as well as a basic principle of good assessment practice that the *results* of assessment activities not be used for the promotion and tenure decisions of individual faculty, nor used to exclude students from the college or a particular program. However, evidence of **assessment activities** at the classroom level is seen as good practice in education and involvement in program level activities are seen as valuable service to the college and to one's department. And it is necessary that departments **document that assessment results are used** to improve student learning and thus strengthen undergraduate majors and graduate programs.

Appendix A (Policy)

Brooklyn College Accrediting Bodies

Institutional Accreditation

Middle States Association of Colleges and Schools, Commission on Higher Education	*7/1/1933 -	Accredited
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Specialized Accreditation

American Dietetic Association, Commission on Accreditation for Dietetics Education		
- Didactic Program in Dietetics	9/1/1974 -	Accredited
- Dietetics (DIETI) - Dietetic Internship	12/1/1991 -	Accredited

American Speech-Language-Hearing Association, Council on Academic Accreditation in Audiology and Speech-Language Pathology		
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- Audiology (AUD) - Graduate degree programs	9/1/1983 -	Accredited
- Speech-Language Pathology (SP) - Graduate degree programs	7/18/1968 -	Accredited

Council on Education for Public Health		
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- Community Health Education (CHE) and Community Health/Preventive Medicine (CHPM) - Graduate programs offered outside schools of public health	10/13/2001 -	Accredited
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National Council for Accreditation of Teacher Education		
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- Teacher Education (TED) - Baccalaureate and graduate programs for the preparation of teachers and other professional personnel for elementary and secondary schools	1/1/1954 -	Accredited
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Middle States Policy Statement on Outcomes Assessment

The Commission on Higher Education reaffirms its expectation that institutions should develop guidelines and procedures for assessing overall institutional effectiveness, with primary attention given to the assessment of student learning outcomes, which are fundamental to the accreditation process.

While the Commission expects institutions to engage in outcomes assessment, it does not prescribe a specific approach or methodology. The approach and methodology to be employed are institutional prerogatives and may vary, based on the stated mission, goals, objectives, and resources of the institution. Nevertheless an institution engaged in self-study or periodic review should provide evidence that the assessment of outcomes, particularly learning outcomes, is an ongoing institutional activity.

Outcomes assessment is not an end; it should be a means by which an institution uses data to improve teaching and learning and for overall institutional improvement. Therefore, faculty, administrative staff and others should be involved in the assessment process. Information obtained through assessment should be used as a basis for assessing the institution's effectiveness in achieving its stated goals for institutional improvement and self-renewal. In addition, outcomes assessment should be linked to an institution's ongoing planning and resource allocation process. Consequently, evidence gathered about student development and learning outcomes can be used to make judgments about resource allocation in planning for overall institutional effectiveness and to enhance academic programs.

The Commission has long challenged its member institutions to pursue excellence, and it understands that the purpose of outcomes assessment is twofold: improvement and accountability. Now more than ever, external forces and internal priorities require institutions of higher education to demonstrate their effectiveness and efficiency to students and to the broader public as well. The improvement of overall educational quality and the enhancement of effective teaching and learning will occur when faculty and administrators work together to implement a sound, institution-wide program of outcomes assessment.

Approved by the membership, October, 1996

Standard 14

Assessment of Student Learning

Assessment of student learning demonstrates that, at graduation, or other appropriate points, the institution's students have knowledge, skills, and competencies consistent with institutional and appropriate higher education goals.

Context:

Assessment of student learning may be characterized as the third element of a four-step teaching-learning-assessment cycle:

- 1. Developing clearly articulated written statements, expressed in observable terms, of key learning outcomes: the knowledge, skills, and competencies that students are expected to exhibit upon successful completion of a course, academic program, co-curricular program, general education requirement, or other specific set of experiences, as discussed under Standard 11 (Educational Offerings).**
- 2. Designing courses, programs, and experiences that provide intentional opportunities for students to achieve those learning outcomes, again as discussed under Standard 11.**
- 3. Assessing student achievement of those key learning outcomes.**
- 4. Using the results of those assessments to improve teaching and learning.**

This standard on assessment of student learning builds upon Standards 11 (Educational Offerings), 12 (General Education), and 13 (Related Educational Offerings), each of which includes assessment of student learning among its fundamental elements. This standard ties together those assessments into an integrated whole to answer the question, "Are our students learning what we want them to learn?" Self-studies can thus document compliance with Standard 14 by summarizing the assessments of Standards 11 through 13 into conclusions about overall achievement of the institution's key student learning outcomes.

Because student learning is at the heart of the mission of most institutions of higher education, the assessment of student learning is an essential component of the assessment of institutional effectiveness (see Standard 7: Institutional Assessment), which additionally monitors the environment provided for teaching and learning and the achievement of other aspects of the institution's mission, vision, and strategic goals and plans.

The fundamental question asked in the accreditation process is, "Is the institution fulfilling its mission and achieving its goals?" This is precisely the question that assessment is designed to answer, making assessment essential to the accreditation process. **Assessment processes help to ensure the following:**

- 1. Institutional and program-level goals are clear to the public, students, faculty, and staff.**
- 2. Institutional programs and resources are organized and coordinated to achieve institutional and program-level goals**
- 3. The institution is providing academic opportunities of quality.**
- 4. The institution is indeed achieving its mission and goals**
- 5. Assessment results help the institution to improve student learning and otherwise advance the institution.**

Assessment is not an event but a process that is an integral part of the life of the institution, and an institution should be able to provide evidence that the assessment of student learning outcomes and use of results is an ongoing institutional activity. While some of the impact of an institution on its students may not be easily or immediately measured—some institutions, for example, aim for students to develop lifelong habits that may not be fully developed for many years—the overall assessment of student learning is expected whatever then nature of the institution, its mission, the types of programs it offers, or the manner in which its educational programs are delivered and student learning facilitated.

While the Commission expects institutions to assess student learning, it does not prescribe a specific approach or methodology. The institution is responsible for determining its expected learning outcomes and strategies for achieving them at each level (institutional, program, and course), assessment approaches and methodologies, sequence, and time frame. These may vary, based on the mission, goals, organization, and resources of the institution. Whatever the approach, effective assessment processes are useful, cost-effective, reasonably accurate and truthful, carefully planned, and organized, systematic, and sustained.

Useful assessment processes help faculty and staff make appropriate decisions about improving programs and services, developing goals and plans, and making resource allocations. To assist with interpretation and use of assessment results, assessment measures and indicators have defined minimally acceptable performance targets. Because institutions, their students, and their environments are continually evolving, effective assessments cannot be static; they must be reviewed periodically and adapted in order to remain useful.

Cost-effective assessment processes are designed so that their value is in proportion to the time and resources devoted to them. To this end, institutions can begin by considering assessment measures already in place, including direct evidence such as capstone projects, field experience evaluations, and performance on licensure examinations and indirect evidence such as retention and graduation rates and alumni surveys. New or refined measures can then be added for those learning outcomes for which direct

evidence of student learning is not already available, concentrating on the most important institutional and program-level learning outcomes. Effective assessments are simple rather than elaborate and may focus on just a few key goals in each program, unit, and curriculum.

Reasonably-accurate and truthful assessment processes yield results that can be used with confidence to make appropriate decisions. Such assessment processes have the following characteristics:

1. Because there is no one perfectly accurate assessment tool or strategy institutions should use **multiple kinds of measures to assess goal achievement**. Assessments may be quantitative and/or qualitative and developed locally or by an external organization.
2. Assessment tools and strategies should be developed with care; they should not be not merely anecdotal information nor collections of information that happen to be on hand.
3. **Student learning assessment processes should yield direct—clear, visible, and convincing—evidence of student learning**. Tangible examples of student learning, such as completed tests, assignments, projects, portfolios, licensure examinations, and field experience evaluations, are direct evidence of student learning. Indirect evidence, including retention, graduation, and placement rates and surveys of students and alumni, can be vital to understanding the teaching-learning process and student success (or lack thereof), but such information alone is insufficient evidence of student learning unless accompanied by direct evidence. Grades alone are indirect evidence, as a skeptic might claim that high grades are solely the result of lax standards. But the assignments and evaluations that form the basis for grades can be direct evidence if they are accompanied by clear evaluation criteria that have a demonstrable relationship to key learning goals.

Planned assessment processes that clearly and purposefully correspond to learning outcomes that they are intended to assess promote attention to those goals and ensure that disappointing outcomes are appropriately addressed.

Organized, systematized, and sustained assessment processes are ongoing, not once-and-done. There should be clear interrelationships among institutional goals, program and unit-level goals, and course-level goals. Assessments should clearly relate to important goals, and improvements should clearly stem from assessment results.

As noted earlier, because student learning is a fundamental component of **the mission** of most institutions of higher education, the assessment of student learning is an essential component of the assessment of institutional effectiveness. An institution may therefore create institutional effectiveness documentation that includes a component on assessing student learning (see Standard 14: Assessment of Student Learning), or it may create a

bridge between two separate sets of documentation, one for the assessment of student learning and one for other aspects of institutional effectiveness.

The improvement of overall educational quality and the enhancement of effective teaching and learning is most likely to occur when faculty and administrators work together to implement a sound, institution-wide program of assessment. Because the faculty guide decisions about curriculum and pedagogy, the effective assessment of student learning is similarly guided by the faculty and supported by the administration.

A commitment to assessment of student learning requires a parallel commitment to ensuring its use. Assessment information, derived in a manner appropriate to the institution and its desired academic outcomes, should be available to and used by those who develop and carry out strategies that will improve teaching and learning.

Assessment results should also be used to evaluate the assessment process itself, leading to modifications that improve its relevance and effectiveness.

Appendix B (Resources)

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Other Resources

National Educational Associations/Initiatives

American Association for Higher Education (AAHE) web resources for assessment:

<http://www.aahe.org/assessment/web.htm>

The site, organized by topic, contains not only a list of meta-sites but also links to specific information related to various steps in the process of developing and implementing outcomes assessment. Be aware that some links on the site are broken, so you may need to click through a change of address.

Association of American Colleges and Universities (AAC&U):

<http://aacu.org/issues/curriculum/assessment.cfm>

Links to several national assessment initiatives, as well as to an instrument—which can be modified for use in one’s own classes—that measures student perception of which course elements helped them learn.

National Institute for Science Education (NISE):

<http://www.wcer.wisc.edu/nise/>

Quality in Undergraduate Education (QUE):

<http://www.gsu.edu/~wwwque/standards/discipline.html>

Standards for chemistry, English, biology, and history.

Regional Accrediting Agency

Middle States Commission on Higher Education (Middle States) web resources for assessment:

www.msche.org

Funding Agency

National Science Foundation (NSF) requirements for assessment of funded projects:

http://www.nsf.gov/pubs/2004/nsf04016/nsf04016_4.htm

This page is a section of the NSF publication “A Guide for Proposal Writing.” It outlines the general criteria used to evaluate proposals submitted to NSF. Under the first category, “Intellectual Merit,” are several assessment criteria. Individual NFS programs contain program-specific criteria. It is noteworthy that, for the most part, NSF simply assumes that PIs will have the knowledge required to design and implement assessment of their proposed projects. Some help can be found, however, by searching the NSF site on “assessment student learning,” which generates about 1900 hits, then using the categories provided in the drop-down menu to narrow the focus to a specific discipline.

Disciplinary Agencies/Resources

Designing Assessment in Art. Armstrong, Carmen. 1994. ISBN 0-937652-71-7

Association of Collegiate Business Schools and Programs (ACBSP):

<http://www.acbsp.org/AccStandardsBacGrad2004.pdf>

American Chemical Society (ACS):

<http://www.chemistry.org/portal/Chemistry?PID=general.html&DOC=education\cpt\guidelines.html>

Accreditation Board for Engineering and Technology (ABET), Computer Science:

<http://www.abet.org/criteria.html>

American Political Science Association (APSA):

<http://209.235.241.4/about/chairs/assessment/index.cfm>

American Psychological Association

Division 2: Society for the Teaching of Psychology

<http://www.lemoyne.edu/OTRP/teachingresources.html#outcomes>

Report on learning goals for undergraduate psychology majors

<http://www.apa.org/ed/pcue/taskforcereport2.pdf>

Assessment “cyberguide” for the goals of psychology majors

http://www.apa.org/ed/critique_goals.html

Manual for evaluation standards and guidelines

http://www.apa.org/ed/graduate/bea_guidelines2004.pdf

National Association for Sport and Physical Education:

<http://www.aahperd.org/naspe/template.cfm?template=programs-ncate.html#standards>

Council of Writing Program Administrators (WPA):

<http://www.english.ilstu.edu/Hesse/outcomes.html>

Outcomes Statement for First-Year Composition April 2000

Sample Departmental Plans

University of Nebraska at Kearney:

<http://aaunk.unk.edu/asmt/dpts.htm>

University of Illinois at Urbana-Champaign:

<http://www.oir.uiuc.edu/assessment/plans.html>

MSU-Bozeman:

<http://www.montana.edu/aircj/assess/majors/majors9899/>

Brooklyn College Center for Teaching

An online version of the *Manual* as well as information about: on-campus opportunities to learn more about outcomes assessment; other activities of the Center.

<http://depthome.brooklyn.cuny.edu/centerforteaching/>

Example of Preparing a Report (Roanoke College)

Preparing the Annual Assessment Program

An Annual Assessment Program must be conducted for each academic major and program. The Annual Assessment Program used at Roanoke is based on a model constructed by James Nichols of the University of Mississippi. The Program involves annual development of a five-column grid that includes the following components:

(1) Column 1: Identification of an important goal derived from the College Statement of Purpose, the College Institutional Standing Goals, the Curriculum Goals, or the major/program's own mission statement. The first three columns are completed in late summer-early fall.

A Single Example from General Education:

Mission Statement/Goal	Objective	Assessment Mechanism	Assessment Results	Program/Service Improvement
Students should develop the ability to communicate effectively.				

(2) Column 2: Identification of approximately three objectives that are selected from the longer list of objectives included in the second part of the Assessment Plan. These are the objectives on which assessment activity will be focused for the remainder of the year. The first three columns are completed in late summer-early fall. The objectives selected typically change from year to year.

Continuing Example for One Objective:

Mission Statement/Goal	Objective	Assessment Mechanism and threshold of success	Assessment Results	Program/Service Improvement
Students should develop the ability to communicate effectively.	An ability to give an effective oral presentation			

(3) Column 3: Identification of the assessment mechanisms that will be used to examine the selected objectives. These mechanisms are drawn from those listed in the third part of the Assessment Plan. Each mechanism should contain a criterion or threshold of success; this is the level at which faculty would conclude that the objective has been reasonably met. In the following example, "" and "" establish this threshold. The criterion should be set at whatever level is appropriate and meaningful. Institutional effectiveness seeks to encourage honest assessment and

creative effort to make program improvements without fear of failure or personal retribution. Each major/program is evaluated on the quality of its mission statement, objectives, assessment activity, and effort to make program improvements.

Continuing Example for One Objective:

Mission Statement/Goal	Objective	Assessment Mechanism and threshold of success	Assessment Results	Program/Service Improvement
Students should develop the ability to communicate effectively.	An ability to give an effective oral presentation	<p>80% of final presentations in Senior Symposium and departmental senior seminars rated 'adequate' or better on standardized form.</p> <p>60% of respondents on alumni survey will respond 'very much' to the question: 'How much did your education here contribute to your personal growth in speaking effectively?'</p>		

(4) Column 4: Identification of the results of the application of the assessment mechanism. This column describes what has been learned from each assessment mechanism about performance relative to the corresponding objective. It must contain information that allows determination about whether or not the criterion level has been reached. This column is completed at whenever the results from the assessment mechanism are available or at the end of the year.

Continuing Example (With Hypothetical Data in Column 4):

Mission Statement/Goal	Objective	Assessment Mechanism and benchmark	Assessment Results	Program/Service Improvement
Students should develop the ability to communicate effectively.	An ability to give an effective oral presentation	<p>80% of final presentations in Senior Symposium and departmental senior seminars rated 'adequate' or better on standardized form.</p> <p>60% of respondents on alumni survey will respond 'very much' to the question: 'How much did your education here contribute to your personal growth in speaking effectively?'</p>	<p>70% of final presentations rated 'adequate' or better.</p> <p>90% of respondents reported 'very much.'</p>	

(5) Column 5: ("Closing the Loop") Identification of efforts to make program/service improvements based on what has been learned and reported in column 4. If assessment shows that an objective is being met, and no one has ideas for doing better, the fifth column simply reports that. When assessment shows that an objective is not being met and/or ideas are suggested for doing better, then the fifth column reports the changes designed to enhance program performance. This column is completed in late spring-early summer.

Continuing Example (With Hypothetical Data in Columns 4 and 5):

Mission Statement/Goal	Objective	Assessment Mechanism	Assessment Results	Program/Service Improvement
Students should develop the ability to communicate effectively.	An ability to give an effective oral presentation	80% of final presentations in Senior Symposium and departmental senior seminars rated 'adequate' or better on standardized form. 60% of respondents on alumni survey will respond 'very much' to the question: 'How much did your education here contribute to your personal growth in speaking effectively?'	70% of final presentations rated 'adequate' or better. 90% of respondents reported 'very much.'	A meeting of Senior Symposium instructors held to discuss the issue. More attention will be devoted to effective speaking on the syllabus and in preparation for the presentation.

Essentially, the whole purpose of a program of institutional effectiveness and of all assessment activity is contained in the fifth column. Institutional effectiveness is a systematic process for thinking about, studying, and making efforts to improve programs and services.

INSTITUTIONAL EFFECTIVENESS AND
ASSESSMENT FOR ACADEMIC MAJORS
AND PROGRAMS AT ROANOKE COLLEGE

Gregory L. Weiss
Professor of Sociology and
Director of Assessment

Third Edition, May 2000
(Previously Titled "Academic Outcomes Assessment at Roanoke College")

<http://www.roanoke.edu/inst-res/assessment/AcadMan.htm#3>