Miles College Assessment Guide

For Educational,
Administrative Support
and Educational Support Units

Miles College Office of Research, Outcomes,
Assessment, and Institutional Effectiveness

MILES COLLEGE MISSION

Miles College—a senior, liberal arts, church-related college with roots in the Christian Methodist Episcopal Church and in the tradition of the Historically Black College—motivates and directs its students to seek holistic development that leads to intellectual, ethical, spiritual and service-oriented lives. Guided by these core values, the Miles College education involves students in rigorous study of the liberal arts as preparation for work and life-long learning, in the acquisition of verbal, technological and cultural literacy, and in critical community participation; all as a prelude to responsible citizenship in the global society which they will help to shape.

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INTRODUCTION

This publication is designed to guide faculty and staff in their creation and use of measurable unit assessments. Assessments may focus on **student learning outcomes** within educational units, or they may focus on **outcomes** within administrative or educational support units. Both types of assessment can use similar formats and procedures. For example, both types can set long-term and/or short-term goals. Both types can use qualitative and/or quantitative data. Both types should be part of an ongoing improvement process. Wherever assessments are made, the results should be used to improve the services that the institution provides.

Data-driven assessment is very important for college faculty and staff. A foundational part of this process is to examine existing goals and outcomes; only with these benchmarks can we collectively take stock of "what is working" and "what is not working." With this information, we can formulate new goals and outcomes where necessary in an ongoing process. These reflections will encourage success in serving college students over the years to come.

What is Assessment?

Assessment is a process that sets specific, measurable outcomes defining what an individual or group will accomplish, provides a way to measure success, and uses the resulting information for improvement. Assessment helps us to understand **what we do** and to describe **how well we do it**.

The Three Steps of Assessment
1. Articulate broad goals and specific outcomes related to each of those goals.
2. Use measurements to evaluate whether outcomes are being achieved.
3. Use the information for improvement.

(Adapted from University of South Carolina and Walvoord 2004)

Characteristics of Assessment
- Expresses what the unit or student will be able to do or know
- Must be measurable (i.e. must be identifiable or observable)
- Outcomes are more detailed and specific, while goals are broad and general
- Includes action verbs
- Can use direct (i.e., tests) or indirect measurement (i.e., surveys)

(Adapted from University of South Carolina)

Who Benefits From Assessment?

For students, Assessment will:
- Communicate clear expectations about what is important in a course or program
- Inform them that they will be evaluated in a consistent and transparent way
- Allow them to make better decisions about programs based on the skills they will gain

For faculty, participating in Assessment will:
- Help them determine what is working and what is not working in their courses or programs
- Provide evidence to justify needed resources to maintain or improve programs
- Provide reassurance that all faculty teaching a particular high demand course agree to address certain core content

For administrators, implementing college-wide Assessments will:
- Provide valuable data to support requests to fund college initiatives
- Provide valuable data for academic planning and decision-making
- Enable them to inform elected officials, local businesses, and potential donors about the college's impact on students and community in a very compelling and convincing way

(Adapted from Montgomery College)

DEFINITION OF ASSESSMENT

Assessment is **systematic** and **ongoing**. It is the collection, review, and use of evidence about educational programs and administrative/educational support units for improving student learning and development and the institution as a whole. Assessment examines quantitative and qualitative evidence regarding student competence and college operations and uses this evidence to improve the learning environment for current and future students. Data is collected, analyzed and shared to determine skills, knowledge and values students have gained from the college experience. Assessment results are used to determine changes to improve programs and services. The impact of those changes is analyzed to **close the loop.**

PHILOSOPHY OF ASSESSMENT

Assessment is based on two fundamental assumptions:
- ➤ **Effective assessment is learner-centered:** "How will students learn?" and "How well did they learn?" **not** "How will it be taught?" and "How well was it taught?"

- ➤ **Effective assessment is systemic***:* each step in the process is connected to the next step. Institutional assessment efforts must be integrated and must encourage faculty and staff to focus on the continual improvement of the student learning experience.

An effective assessment process is
- ➤ **Integrated:** tied to the college mission and strategic goals.
- ➤ **Ongoing:** part of the ongoing business of the unit.
- ➤ **Data-driven:** uses multiple methods of assessment on multiple samples and at various points in the learning process.
- ➤ **Faculty- and staff-designed and implemented.**
- ➤ **A closed loop:** data and information have been must feed back into the system, both on the college and unit level.

Assessment is not
- ➤ Exclusively an administrative activity. Faculty, staff and students must actively participate in assessment, not just tolerate it.
- ➤ Intended to punish individuals or programs honestly seeking to improve.
- ➤ An intrusion into a faculty member's classroom, nor an infringement upon academic freedom.
- ➤ Necessarily testing, however, testing can be part of assessment.
- ➤ Quick or easy.

For assessment to be successful the process needs to:
- ➢ Articulate the unit outcomes and/or student learning outcomes.
- ➢ Gather evidence documenting success in meeting the goals using either/both
  - o Direct measures such as exams, papers, projects, and performances.
  - o Indirect measures such as self-reported satisfaction surveys or job and graduate school placement rates
- ➢ Use assessment results to improve the student learning experience.

(Adapted from Texas A&M International University)

SECTION A

EDUCATIONAL PROGRAM UNITS

OVERVIEW

Since the early 1990s there has been a growing movement in higher education toward assessing the outcomes of the higher education experience rather than its process. Prior to this time the quality of programs or institutions were judged by looking at their inputs, i.e. the quality of the incoming students, the qualifications of the faculties, the value of the physical plants and endowments, etc. Assessment efforts now are focused on defining what students learn in higher education and collecting evidence to demonstrate that learning is really taking place.

Most importantly, the assessment process is not about keeping score; it is about getting better. The assumption is that educational units and programs will craft assessment plans to address that which is most important to student learning in their disciplines. It is also expected that during this process units and programs will find areas that need improvement, address them, and reassess until the unit and/or program is functioning up to faculty expectations.
(Adapted from Appalachian State University)

Assessment in Educational Program Units

Like administrative and educational support units, educational program units articulate broad goals and specific outcomes related to each of those goals. There are two primary kinds of goals and outcomes: student-focused, which focus on what students will be able to do as a result of participating in a given program; and operational, which focus on the efficiency and quality of functions and services within a unit. A general rule is that each broad goal should be associated with three to five expected outcomes.

For educational programs most of the goals and outcomes should be student-focused. These types of outcomes are called **student learning outcomes (SLOs)**, and they deserve particular mention. These are concise descriptions of the impact of the program's efforts. They should each be clearly related to a program goal.

Student Learning Outcomes (SLOs)
- ➢ Describe the measurable skills, abilities, knowledge, or values that students should be able to do or demonstrate as a result of a completing a program of study, a course, or lesson.
- ➢ Are student-centered rather than teacher-centered, in that they describe what the students will do, not what the instructor will teach.
- ➢ Are only used in programs that award academic credit (i.e., not used in administrative or educational support units).

(Adapted from University of South Carolina and Appalachian State University)

How to Develop an Assessment Plan

The purpose of an assessment plan is to understand and document a unit's or program's effect on students. The emphasis is on assessing the effectiveness of the unit or program, not of individual students, courses, or faculty members.

An assessment plan has three main components:
- ➤ **Purpose/Goals/Outcomes.** This section answers the question, "What claims would a unit or program like to be able to make regarding the impact of its efforts?" Arriving at consensus among faculty regarding the purpose, goals and outcomes of a unit or program is often the hardest part of the assessment process.
- ➤ **Measurements/Criteria.** This section answers the question, "What evidence is required to convince a reasonable person that those claims are accurate?" This part of the assessment plan focuses on the collection of evidence. This evidence may be criteria-referenced (focused on students' achievement of an objective criteria) or value-added (measuring how students have changed over time). In either case, existing baseline measurements or benchmarks must be established.
- ➤ **Results.** This section answers the question, "Were outcomes achieved and how will evidence be used for improvement?"

STATEMENT OF PURPOSE

This is the mission statement for the unit or program. The aim is to convey to others, both internal and external to the college, an understanding of why a unit (program, office, center) exists and what it does. The major points that should be addressed in a statement of purpose are:
- ➤ The fundamental purpose for which a unit or program exists, its reason for being (e.g., to change people, to provide specific services).
- ➤ The philosophy or values or point of view espoused by a unit or program with respect to its purpose. (For educational units this might include relative emphases on teaching, scholarship, and service, or general education and professional education.)
- ➤ The constituency or clientele of a unit or program, those whom it serves and with whom it works.
- ➤ The major activities in which a unit or program engages or the services it provides in order to carry out its mission. Wherever possible, there should be an indication of relative emphases and priorities among the various activities.

Example statement of purpose in an educational unit:
- ➤ The Humanities Division prepares students to discover the beliefs, values, knowledge, and skills that influence them as members of society. The Division engages students

in literary, philosophical, religious, cultural, and artistic pursuits of humanity through courses in the General Education Curriculum and in major and minor educational programs.

Unit and program statements of purpose should be brief (a few sentences or so). They need not follow any specific format as long as they address the points suggested above and are consistent with the college's mission statement.

EDUCATIONAL PROGRAM GOALS

These are broad statements meant to convey the aims of the program stated in terms of what you want students to know or do. They should all be clearly related to both the program's and the unit's purpose or mission. Program goals are not held to the same standard of measurability as student learning outcomes. They act as a link between the mission statement and the outcomes and provide an organizing structure for the assessment plan. There should probably be at least three in number and no more than five.

Example educational program goals:
  - Students understand the utility of sociological knowledge and skills in the social world. (Sociology)
  - Students effectively critique the communicative practices of others (Communication Studies)
  - Physical education teacher candidates utilize assessments and reflection to foster student learning and inform instructional decisions. (Physical Education Teacher Education)

OPERATIONAL GOALS

Educational units may also have operational goals and outcomes, which focus on the efficiency and quality of functions and services within a unit. In other words, operational goals focus on making the unit operate better; for example, increasing professional development opportunities or hiring more personnel. Educational programs/majors will not usually need to specify operational goals.

STUDENT LEARNING OUTCOMES

Student learning outcomes (SLOs) may be defined as:

> The knowledge, skills, and abilities that students have attained as a result of their involvement in or completion of a particular set of educational experiences.

> Statements that describe what the program faculty intend for students to be able to know, do, or demonstrate upon completion of a given educational program. Assessment of student learning outcomes is ongoing and periodic as the student moves through a program's required curriculum.

> Statements that specify what students will know, be able to do or be able to demonstrate when they have completed or participated in a program/activity/course/project. SLOs specify an action of the student that must be observable, measurable, and able to be demonstrated.

> The specific measurable results that are expected subsequent to a learning experience. These outcomes may involve knowledge (cognitive), skills (behavioral) or attitudes (affective behavior) that display evidence that learning has occurred, at a specified level of competency, as a result of a course or program. Learning outcomes are clear and accessible statements that define what a student is able to do at the completion of a course or program.

Student learning outcomes are **not:**

> individual course outcomes or course learning objectives.

> individual student assessment within the context of a given course (i.e. individual student grades).

Within programs, faculty will also define student learning outcomes for particular courses or lessons. These will inform programmatic student learning outcomes but are not the same thing.
> (*Adapted from University of North Carolina at Chapel Hill and Western Kentucky University*)

Determining the student learning outcomes for a program can be the most difficult and time consuming part of writing an assessment plan. The process requires a "meeting of the minds" among program faculty as to what knowledge, skills and attitudes students will gain while in the program. This discussion could begin surveying course syllabi for required courses in the major. By noting which topics are introduced, reinforced and applied throughout the curriculum, faculty will begin to see what knowledge, skills and attitudes are currently taught. This information will be the basis for a discussion among faculty as they work to define what they want the program to be about.

To be functional for assessment purposes, student learning outcomes must be specific and measurable. Non-specific statements such as "Students will understand...", "Students will appreciate...", "Students will know..." should be avoided. Instead program faculty should decide what specific behavior students will exhibit that would make one recognize that students "understand" "appreciate" or "know". Specific action verbs such as "explain", "appraise", or "apply" are more potentially measurable and thus more useful in assessment plan.

Example student learning outcomes:
- ➢ Students will apply sociological theories to institutions, situations and her/his own life (Sociology)
- ➢ Students will distinguish between effective and ineffective communication practices (Communication Studies)

(Adapted from Appalachian State University)

Writing Student Learning Outcomes

Learning outcomes should be **SMART:**
- ➢ **Specific**: The learning outcome should be well defined and clear. It states exactly what students will accomplish.
- ➢ **Measurable**: The learning outcome should provide a benchmark or performance criteria so that the institution can determine when the target has been reached, by how much it has been exceeded or by how much it has fallen short.
- ➢ **Agreed Upon:** Important stakeholders must be in general agreement with the institution's mission, goals and learning outcomes. Stakeholders may include college, school administration, faculty, students, alumni, and/or community members.
- ➢ **Realistic:** Learning outcomes should be reasonable given the available resources. Learning outcomes should neither be easy nor impossible to attain, but somewhere in between.
- ➢ **Time-Framed:** A learning outcome should include a specific date by which it will be completed.

(Adapted from University of South Carolina)

Using the Revised Bloom's Taxonomy to Write SLOs

Many colleges use the **Revised Bloom's Taxonomy** (on the next page) to help them write student learning outcomes. "The Taxonomy of Educational Objectives" was created by Benjamin Bloom in the 1950s as a means of expressing qualitatively different kinds of thinking. Bloom's Taxonomy has since been adapted for classroom use as a planning tool and continues to be one of the most universally applied models across all levels of schooling and in all areas of study. During the 1990s, it was revised for 21st century skills.

The levels of learning start with "remembering" as the foundation and ascend through "understanding," "applying," "analyzing" and "evaluating," with "creating" at the top of the cognitive scale.

Table 1: Using the Revised Bloom's Taxonomy

Levels of Knowledge	Action Verb	Possible Assessment Format
Remembering: Can the student recall or remember the information?	define, duplicate, list, memorize, recall, repeat, reproduce, state	True-false; Multiple choice; Matching items from two lists
Understanding: Can the student explain ideas or concepts?	classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase	Asking a student to pair an instance with a concept, principle, or category; Asking a student to produce a theme or summary when presented with an information
Applying: Can the student use the information in a new way?	choose, dramatize, demonstrate, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write	Determining the procedure necessary for solving an unfamiliar problem
Analyzing: Can the student distinguish between the different parts?	appraise, compare, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test	Determining which parts in a given material are most important or relevant; Providing an outline, table, matrix, or hierarchical diagram
Evaluating: Can the student justify a stand or decision?	appraise, argue, judge, defend, select, support, value, evaluate	Evaluating a proposed solution or hypothesis; judging which of several methods provides a better solution to a problem
Creating: Can the student create a new product or point of view?	assemble, construct, create, design, develop, formulate, write	Producing alternatives or hypotheses - generating alternative methods for achieving a particular result

(*Adapted from University of South Carolina)*

The Importance of Action Verbs

Action verbs result in overt behavior that can be observed and measured. Certain verbs are unclear and call for covert, internal behavior which cannot be observed or measured. These types of verbs should be **avoided:** appreciate, become aware of, become familiar with, know, learn, understand

Examples: Too general and very hard to measure
  ➢ …will develop problem-solving skills and conflict resolution.
  ➢ …will be able to have more confidence in their abilities.

Examples: Still general and hard to measure
  ➢ …will demonstrate ability to resolve personal conflicts and assist others in resolving conflicts.
  ➢ ...will demonstrate critical thinking skills, such as problem solving as it relates to social issues.

Examples: Specific and relatively easy to measure
  ➢ ...will be able to assist roommates in resolving conflicts by helping them negotiate agreements.
  ➢ ...will demonstrate the ability to analyze and respond to arguments about racial discrimination.

How Can a Student Learning Outcome be Fixed?

Shortcomings can typically be seen by asking two simple questions, **"Can it be measured**?"
and **"Is learning being demonstrated?"** Take a look at the following examples:
  ➢ "Students *will understand* the four reasons for conducting a background check."
      o Learning is demonstrated, but this SLO will be difficult to measure.
  ➢ "Students *will arrive* on time daily."
      o This can be easily measured, but learning is not necessarily being demonstrated.

These SLOs can be rewritten to make the learning outcomes measurable and demonstrative of learning:
  ➢ "Students will be able to list four reasons for conducting a background check.
  ➢ "Students will be able to articulate the necessity of maintaining office hours as publicized."

Both of these SLOs answer the two questions. They are measurable and demonstrate that the student has learned.
(*Adapted from University of Rhode Island*)

SECTION B

ADMINISTRATIVE SUPPORT AND EDUCATIONAL SUPPORT UNITS

OVERVIEW

Institutions of higher learning are becoming increasingly involved in conducting assessment within their administrative and educational support units. The desire to know how well the unit is doing and to improve in strategic planning efforts, decision support, resource allocation, and operational excellence are all motivators for conducting assessment.

Most of the information that follows complements the information given in Section A. The most important difference between assessment in educational units, and in administrative and educational support units, is that the latter does not specify student learning outcomes, since they do not evaluate student achievement for academic credit. However, administrative and educational support units do impact many aspects of the student experience, so their assessment process may address some student-focused outcomes as well as operational outcomes. The distinction appears minor but is important.

Assessment in Administrative and Educational Support Units

The four main purposes of assessment in administrative and educational support units should be:
- ➢ **To improve:** The assessment process should provide feedback to determine how the unit's processes and services can be improved.
- ➢ **To inform:** The assessment process should inform department heads and other decision-makers of the contributions and impact of the administrative or educational support unit to the development and growth of students.
- ➢ **To prove:** The assessment process should encapsulate and demonstrate what the unit is accomplishing to students, faculty, staff and outsiders.
- ➢ **To support:** The assessment process should provide support for campus decision-making activities such as unit review and strategic planning.

(Adapted from University of South Carolina)

How to Develop an Assessment Plan

The purpose of an assessment plan for administrative and educational support units is to understand and document the unit's effect on the institution. The emphasis is on assessing the effectiveness of the functions and services provided.

As in educational units, an assessment plan for administrative and educational support units has three main components:
- ➢ **Purpose/Goals/Outcomes.** This section answers the question, "What claims would a unit like to be able to make regarding the impact of its efforts?"
- ➢ **Measurements/Criteria.** This section answers the question, "What evidence is required to convince a reasonable person that those claims are accurate?" This part of

the assessment plan focuses on the collection of evidence. This evidence may be criteria-referenced (focused on achievement of an objective criteria, such as efficiency or responsiveness) or value-added (measuring how achievements have changed over time). In either case, existing baseline measurements or benchmarks must be established.

➢ **Results.** This section answers the question, "Were outcomes achieved and how will evidence be used for improvement?"

STATEMENT OF PURPOSE

The purpose or mission statement is a broad statement of the direction and values of the administrative support or educational support unit. For each unit the statement of purpose should reflect how the unit contributes to the education, development, and experiences of students at the institution. The statement also should describe the services provided by the unit. It is important that the unit's purpose supports the college's institutional mission. It may be useful to take the following steps:

➢ **Briefly state the purpose of the unit**. State the primary purpose of the unit—the reason(s) why you perform your major activities or operations. For example, the main focus may be helping students to be prepared for employment after graduation.
➢ **Indicate who the stakeholders are**. Include the primary groups of individuals to whom services are provided and/or those who will benefit from the services (e.g., students, faculty, staff, parents, employers, etc.).
➢ **Indicate the primary functions or activities of the administrative unit**. Highlight the most important functions, operations, services, and/or offerings of the unit.
➢ **Ensure that the mission statement clearly supports the institution's mission.**
➢ **The mission should be distinctive.** Does your statement distinguish you from other administrative or educational support units? If the name was removed, it should not be applicable to another unit.

Example statement of purpose:
➢ The mission of the Kansas State University Department of Intercollegiate Athletics is to provide, within the context of available resources, an environment that supports the educational objectives, academic progress and general welfare of student-athletes and allows them to compete at the highest level of athletics. Our mission is also to embrace the guidelines and principles established by the Big 12 Conference and NCAA, which promote the principles of sportsmanship and ethical conduct.

UNIT GOALS

These are broad statements meant to convey the aims of the unit stated in terms of the functions or services it will provide. They should all be clearly related to the unit's purpose or mission. Unit goals are not held to the same standard of measurability as outcomes. They act as a link between the mission statement and the outcomes and provide an organizing structure for the assessment plan. There should probably be at least three in number and no more than five.

Unit goals for administrative and educational support units are primarily operational; that is, focused on the services and functions of the unit. Where units have direct contact with students (as in Career Planning units or Counseling/Advising units), some student-focused goals may be specified but these are not student learning outcomes, i.e., they are focused on what the unit will do for students.

When defining unit goals, consider how the unit's particular services can best contribute to the broader mission of the institution. If necessary, review existing unit goals as stated in college catalog descriptions or the unit goals of similar departments at other institutions.

Example unit goals:
➢ The Comptroller/Business Office will promptly process vendor invoices.
➢ Transcript requests submitted to the college Registrar will be completed and returned promptly.
➢ Human Resources will recruit and retain quality staff.
➢ The Library will provide adequate collections to support college programs.

Unit goals for educational support units may include both operational and student-focused goals.

Example unit goals:
➢ Students will prepare an acceptable resume for potential employers.
➢ Students will be able to use the library's reference services efficiently.
➢ Students will improve their writing skills through use of the Writing Center.

(Adapted from University of Central Florida and Texas A&M International University)

EXPECTED UNIT OUTCOMES

Outcomes in administrative and educational support units are specific statements that describe desired performance of a service or function of an administrative unit. The outcomes

will primarily describe what the unit is going to do and what its impact will be on students and other key stakeholders (alumni, parents, employers, etc.). Like unit goals, expected outcomes can relate to the operations of the unit, and may include a consideration of demand, quality, and efficiency and effectiveness. Outcomes may also relate to intended behaviors that a student having used services provided by the administrative or educational support unit should demonstrate.

Outcome statements should be derived from the goal statements, which in turn should be aligned to the college's mission. Goals are broad statements, while outcomes are precise, specific and clear statements about the intended accomplishments of an administrative unit.

Examples of expected unit outcomes:
  ➢ Physical Plant will respond to 80% of service requests within two weeks.
  ➢ The Alumni Office will increase the percent of alumni donating to the Annual Fund by 40% within 3 years.
  ➢ The Library will provide a study area for honors students and designate it as the Honors Student Study Lounge by the end of the Spring semester.
  (Adapted from University of Central Florida and Auburn University)

SECTION C

GENERAL ASSESSMENT INFORMATION

OVERVIEW

As stated in Section A, for both educational program units and administrative or educational support units, the second part of the assessment plan focuses on the collection of evidence. For each outcome you should plan two or more ways to measure it. Since educational units specify student learning outcomes, at least one of these methods used in these units should be a direct measure that requires **demonstrated achievement** of the outcome. Others measures in educational programs, administrative, and educational support units may be indirect; for example, student self-reports of learning.

Some measurement activities can be "course-embedded," i.e., integrated into regular graded class work. This eliminates the need for special assessment sessions and also assures that students will be motivated to put forth their best efforts. It must be emphasized that grades can only be used for the assessment process when they are standardized or otherwise beyond the judgment of individual faculty. For example, a question from a standardized test may be embedded into a locally-developed final exam; or a group of faculty can evaluate senior student projects for evidence that certain skills or values have been applied.

ASSESSMENT METHODS

Traditionally, assessment methods have been categorized as being either direct or indirect based on whether the goal is to to assess student learning or student experience. Direct assessors of learning specifically evaluate the competence of students in what they have learned as a result of the provided support service. Indirect assessors differ in that they measure the student's, parent's and employer's experience rather than their knowledge and skills. These methods include feedback from internships, supervisors, student self-reports, etc.

There should be at least one method for assessing each outcome. Use multiple means of assessment whenever feasible. Assessment methods must gather evidence closely related to the intended outcomes. Choose means of assessment that
  ➢ Answer important questions
  ➢ Follow identified "good practices"
  ➢ Are manageable
  ➢ Result in feedback highlighting accomplishments
  ➢ Identify areas requiring attention
(Adapted from University of Central Florida and Texas A&M International University)

CRITERIA AND BENCHMARKS

For each measurement, faculty and staff will set satisfactory performance criteria. Establishing a specific indicator for success creates a common target for faculty and staff and motivation for program/unit improvement. To do so, a benchmark (i.e., the current level of performance) must first be established, as well as a reasonable timeframe in which the outcome will occur. The criteria for a successful outcome should be stated in terms of percentages, percentiles, averages or other quantitative measures.

In educational units, faculty may need to establish rubrics that describe acceptable student performance. Because the assessment focus is on programs and not individual students or grades, program faculty will set a minimum number of students who will exhibit acceptable performance to judge that the program has achieved a specific outcome.

Examples of outcomes with criteria:
- By the end of the Spring term, 75% of students will prepare an acceptable resume for potential employers according to the rubric used in Career Services.
- All seniors in the Accounting major will have attended at least one job or internship interview prior to graduation.
- By the end of the academic year, 80% of English Language Arts students will achieve a mean rating of 3.5 (based on a rubric with maximum score of 4.0) on maintaining the classroom climate.

(*Adapted from Appalachian State University, Texas A&M International University, and Auburn University*)

Assessment Tools

Direct:
- Capstone course evaluation
- Classroom tests - teacher generated, standardized, oral exams, pop quizzes, pre/post testing
- Competency based measures - Performance appraisals, internships, simulations and role playing
- External reports such as judging or portfolios by industry
- Internship exit reviews
- Senior recitals
- Teacher observations
- Class participation
- Research projects
- Thesis evaluations
- Portfolios
- Case studies
- Reflection papers
- Final exam with embedded assessment questions

Indirect:
- ➢ Questionnaires
- ➢ Interviews
- ➢ Focus groups
- ➢ Employer satisfaction studies
- ➢ Advisory Boards
- ➢ Job/graduate school placement data
- ➢ Enrollment numbers
- ➢ Alumni surveys

Assessment Data Sources

Both direct and indirect tools can make use of **qualitative** or **quantitative** data:
- ➢ **Qualitative**: "Soft" data that relies on subjective interpretations of outcomes (for example, alumni survey).
- ➢ **Quantitative:** "Hard," measurable, and verifiable data that is amenable to statistical manipulation; designed to discover how an individual student's performance or test result compares to that of an appropriate peer group (for example, standardized tests).

Selecting Appropriate Assessment Methods/Tools/Data

The acronym MATURE can be used when selecting or developing measures for unit outcomes:

MATCH: Match the outcome with the appropriate assessment method. Successful and useful assessment cannot be achieved if the assessment method is not aligned with the outcome to be assessed.

Examples:
- ➢ Outcome: "Students will demonstrate an understanding of the services provided by offices that are involved in the intent to graduate process."
  - o Does not match the outcome being assessed**:**
    Assessment method: "Students will successfully download the intent to graduate form."
  - o Does match the outcome being assessed:
    Assessment method: "After the workshop session, students will achieve a 90% or higher on the set of questions related to the services provided by offices that assist in the intent-to-graduate process."

APPROPRIATE: Choose methods that are appropriate. They can be direct or indirect. There are times when one measurement instrument could measure more than one outcome. (For example, a survey may target several outcomes). Complex measures are not necessarily the key to successful assessment. Consider measures that provide you with information that is easily interpreted and unambiguous and that can be used to improve where necessary.

Determine beforehand if there are available resources to assist in the collection of data on the chosen measure. Do the data exist or is the collection of data going to be required? If so, determine whether the data are difficult or easy to obtain. Consider assessment methods for which data might already exist. Avoid selecting assessment methods that require complicated data collection techniques, when possible.

Select methods that provide information that can be directly controlled by the department or program. An assessment method that is influenced by external factors beyond the control of the program will yield results that are meaningless to you since you will not be able to manipulate or direct the student service or administrative process.

TARGET: Each measure should be directed. It should specify, when possible, the desired level of performance.

USEFUL: Choose assessment methods that will provide you with useful and useable information. The measure that you are trying to assess should not only be interesting but one that would allow you to make inferences about the progress toward the outcome.
    Examples:
- Outcome: "Hypothetical Administrative Unit will demonstrate increased timeliness in terms of processing student requests."
  - Will not provide useful, useable information:
  Assessment method: "Number of students served by Hypothetical Administrative Unit will be tracked for three semesters."
  - Will provide useful, useable information:
  Assessment method: "A computerized log will track the date and time of each student request and the date and time that it is resolved. The time between request and resolution will be compared for two semesters."

Note: The first example assessment shows that data are being collected, but not useful data. In the second example assessment provides information that can be used to determine if the administrative unit is increasing its timeliness.

RELIABLE: The measure is based on tested, known methods. A reliable assessment method is one that yields consistent responses over time. The method selected should be one that provides dependable, consistent results time after time. The instrument and should be clearly worded and not ambiguous. The time available to complete the instrument should be consistent with its length.

EFFECTIVE AND EFFICIENT: Each approach accurately and concisely measures the outcome. When possible, utilize a combination of qualitative and quantitative assessment methods to effectively assess outcomes. Examples of qualitative assessment methods include open-ended questions on surveys, focus groups, and structured interviews.

When possible, utilize a combination of direct and indirect assessment methods. Some assessment methods require direct interaction with the students in an evaluative or instructional setting, while others do not (such as information from the student database or surveys).

(Adapted from University of Central Florida)

Examples of Performance Criteria and Means of Assessment

English
Educational Program Outcome: Students completing the baccalaureate program in English will compare very favorably in their knowledge of literature with those students completing similar programs nationally.
  ➢ Criteria and Means of Assessment:
    o The average score of the graduates of the BA program in English on the MFAT Literature in English will be at or near the 50th percentile compared to national results and no subscale score will be below the 30th percentile.
    o On the graduation questionnaire, 90% of program graduates will "agree" or "strongly agree" with the statement "In the field of literature, I feel as well prepared as the majority of individuals nationwide who have completed a similar program during the past year".

Educational Program Outcome: Graduates will be able to critique a brief draft essay, pointing out the grammatical, spelling, and punctuation errors.
  ➢ Criteria and Means of Assessment:
    o As part of a capstone course during the final semester, students will critique a short draft essay; identifying grammatical, spelling and punctuation errors.
    o 80% of the program's graduates will identify 90% of the errors in the draft essay. Additionally, none of the 14 rubrics utilized to evaluate the student's critique will appear to be consistently unmet.

Educational Program Outcome: Students completing the baccalaureate program will be capable of writing an acceptable journal article.
  ➢ Criteria and Means of Assessment:
    o A jury of English Department faculty from a comparable institution will judge 80% of those journal articles submitted acceptable for publication.
    o 20% of journal articles submitted will be published in student or other publications.

<u>Accounting</u>

Educational Program Outcome: Students completing the baccalaureate program in Accounting will be prepared for their first position in the field.

- ➢ Criteria and Means of Assessment:
    - o 80% of accounting majors taking the CPA exam will pass at least three of four parts on the exam. Further, the rate of passage on any single part will not be less than 80%.
    - o Employers of accounting program graduates hired through Career Services will indicate on a survey forwarded to them by Career Services one year after employment of the graduate no less than a 7.5 overall average (on a scale of 1 - 10) on their evaluation of the ten critical accounting skills exhibited by the graduate. No individual skill rating will be less than an average rating of 5.0.

Educational Program Outcome: Baccalaureate graduates of the Accounting Program will find ready employment in the field.

- ➢ Criteria and Means of Assessment:
    - o Career Services will report 50% of accounting graduates registered each fall received a job offer by the close of Spring Semester.
    - o 75% of students completing the accounting degree program will indicate that they are currently employed or have accepted a job offer in response to the Graduate Survey.

(Adapted from Western Kentucky University)

USING ASSESSMENT RESULTS

Though very important, defining and then collecting evidence about outcomes is just the beginning of the unit improvement process. As stated in Section A, the use of results is the third part of assessment. Faculty and staff need to draw conclusions about the meaning of the evidence, develop a plan to improve the student performance or experience, and then collect more evidence to determine the effect of the changes. This process is often referred to as **"closing the loop"** (see p. 31). No matter how well assessment activities are planned and conducted, their usefulness requires a plan that incorporates a feedback mechanism.

Results of assessment should be used to make changes to:
- ➢ The assessment process: by restructuring the goal or outcome statement, revising the data collection or conducting a more thorough analysis
- ➢ The operation or academic process: by revising admission criteria, advising processes, streamlining course offerings or including technology in the program
- ➢ The curriculum: by revising course pre/co-requisites, course content, and adding or deleting courses.

Eventually the evidence collected around an outcome might indicate that a program or service is underperforming in relation to faculty's or staff's expectations. If this occurs, faculty or staff will develop a plan for improvement. This may involve changing the curriculum, changing pedagogy, adjusting a course, changing the criteria, etc.

Once the plan for improvement is implemented and given time to have the desired effect, faculty or staff use the means of assessment to once again determine if the outcome criteria are being met. If not, they develop another plan for improvement, implement it and assess it. That cycle continues until the criteria are met.

Units should not assess all their outcomes every year. During any year a unit might be collecting evidence around a small handful of outcomes. Good practice suggests that programs not move on to assessing many additional outcomes until it has reached the desired levels of performance on the outcomes it is currently assessing
(Adapted from Appalachian State University and Western Kentucky University)

Reporting Results

To communicate results effectively to decision-makers and other stakeholders, consider the following:
Integrate: Results should be presented in relation to unit and program goals and student learning outcomes. Recommendations should be developed based on data analysis and within a framework to accomplish these changes.
Communicate: Assessment results should be communicated frequently. Conducting and reporting assessment is a predictor of the effectiveness of assessment.
Know: Know your audience. Identify decision makers and ensure they receive appropriate information. Know the types of information and reports decision makers prefer.
Familiarize: Become familiar with and understand the data and what it can mean.

Examples of results reporting and use [summary]:

Unit: The Writing Center

Expected Unit Outcome: Undergraduate students will participate in Supplemental Instruction sessions provided at the request of faculty in historically difficult core classes.
> - Assessment Method 1: Participation data. Participation data will be collected by each Supplemental Instruction leader.
> - Findings: 5445 students attended Supplemental Instruction at least one time. 11 classes have Supplemental Instruction attached to them.
> - Use of Findings for Improvement: Many Supplemental Instruction sessions were overcrowded, leading to the addition of sessions.
> - Assessment Method 2: Grade comparison. Grades of students who regularly attend Supplementary Instruction sessions will be compared with grade of students in each class who did not attend Supplementary Instruction sessions.
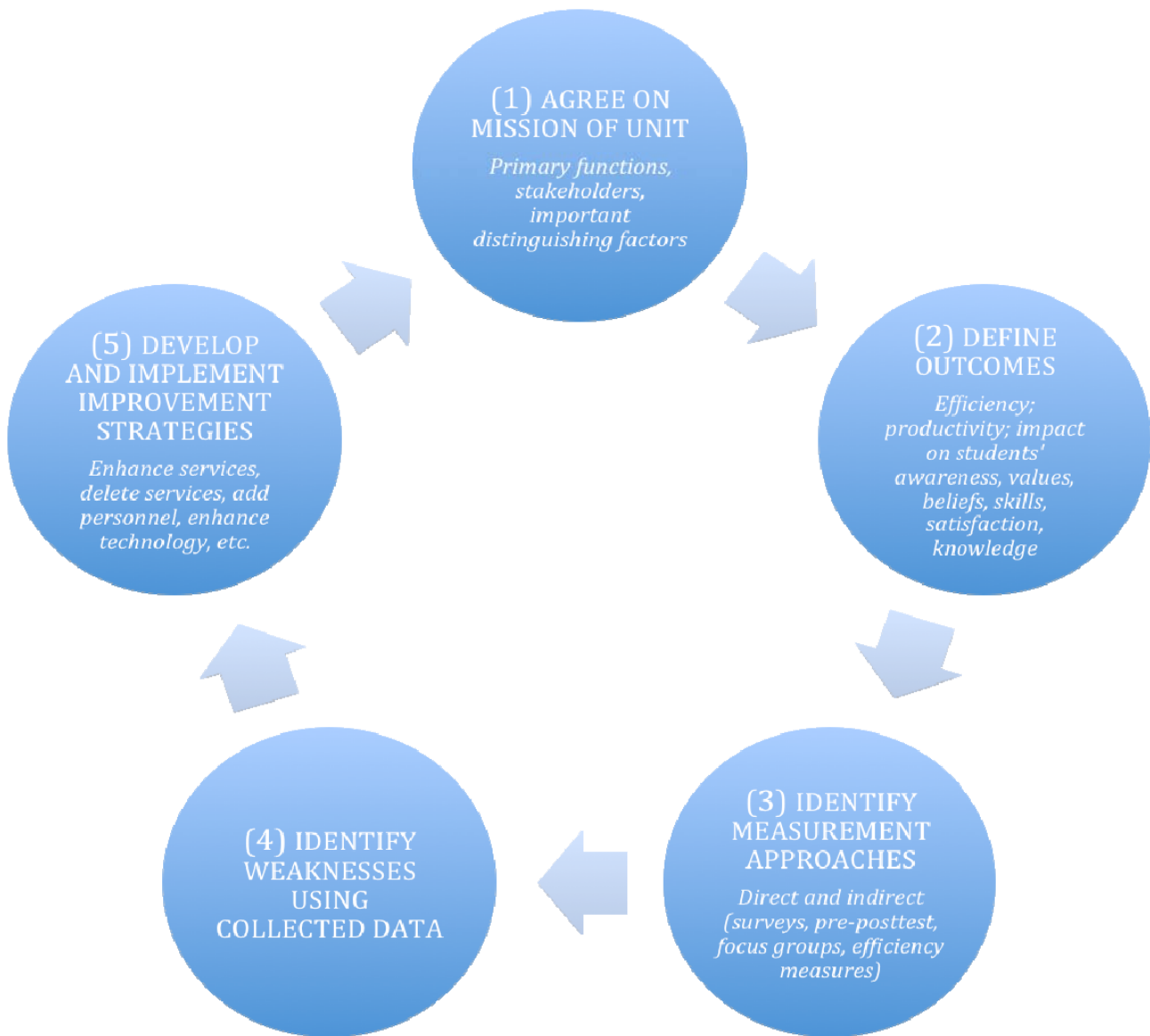
- Findings: Students who attended Supplementary Instruction scored 8-12 points higher on tests than students in the same classes who took the same tests.
- Use of Findings for Improvement: If results on a test did not indicate a difference between those who participated in Supplementary Instruction and those who did not, the Supplementary Instruction leader and his/her sessions were evaluated and appropriate changes made.
- Assessment Method 3: Observation and evaluation. Supplementary Instruction leaders will be observed and evaluated several times each semester.
- Findings: Most Supplementary Instruction leaders performed as they were trained to do.
- Use of Findings for Improvement: Supplementary Instruction leaders who were found to be less effective than expected received additional training and assistance.

(Adapted from the University of Florida, Texas A&M International University, and Auburn University)

REMEMBER:

➢ Goals are broad while outcomes must be **specific**, **observable,** and **measurable.**

➢ Measurements may be direct or indirect, quantitative or qualitative, objective or subjective, but they **must be specific to the particular outcome.**

➢ Outcomes that cannot be measured are **not appropriate** to the assessment process.

➢ Assessment requires that **results be used for improvement**.

CLOSING THE LOOP

(1) AGREE ON MISSION OF UNIT

Primary functions, stakeholders, important distinguishing factors

(2) DEFINE OUTCOMES

Efficiency; productivity; impact on students' awareness, values, beliefs, skills, satisfaction, knowledge

(3) IDENTIFY MEASUREMENT APPROACHES

Direct and indirect (surveys, pre-posttest, focus groups, efficiency measures)

(4) IDENTIFY WEAKNESSES USING COLLECTED DATA

(5) DEVELOP AND IMPLEMENT IMPROVEMENT STRATEGIES

Enhance services, delete services, add personnel, enhance technology, etc.

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APPENDIX A: GLOSSARY OF TERMS

Accountability/ External Reports	External reporting is the process of collecting and reporting data, information, and/or analysis to meet the requirements of the state government, federal government, or other key entities for which reports must be submitted to maintain the college's ability to achieve its mission.
Accreditation	A voluntary process involving an association of schools and/or colleges to encourage high standards of education. Accreditation indicates that the Commission judges that the institution, in a manner consistent with Commission standards, offers its students on a satisfactory level the educational opportunities implied in its objectives and is likely to continue to do so.
Action Research	School and classroom-based studies initiated and conducted by teachers and other school staff. Action research involves teachers, aides, principals, and other school staff as researchers who systematically reflect on their teaching or other work and collect data that will answer their questions. It offers staff an opportunity to explore issues of interest to them in an effort to improve classroom instruction and educational effectiveness.
Affective	Outcomes of education involving feelings more than understanding; like, pleasures, ideals, dislikes annoyances, values.
Alternative Assessment	Many educators prefer the description "assessment alternatives" to describe alternatives to traditional, standardized, norm- or criterion-referenced traditional paper and pencil testing. An alternative assessment might require students to answer an open-ended question, work out a solution to a problem, perform a demonstration of a skill, or in some way produce work rather than select an answer from choices on a sheet of paper. Portfolios and instructor observation of students are also alternative forms of assessment.
Analytic Scoring	A type of rubric scoring that separates the whole into categories of criteria that are examined one at a time. Student writing, for example, might be scored on the basis of grammar, organization, and clarity of ideas. Useful as a diagnostic tool. An analytic scale is useful when there are several dimensions on which the piece of work will be evaluated. (See **Rubric.**)
Anchor(s)	A sample of student work that exemplifies a specific level of performance. Raters use anchors to score student work, usually comparing the student performance to the anchor. For example, if student work was being scored on a scale of 1-5, there would typically be anchors (previously scored student work), exemplifying each point on the scale.
Applicability	"Applicability of assessment measures relates to the extent to which information on a particular outcome measure meets the needs of multiple stakeholder groups. In other words, to what extent will data generated from a critical thinking, problem solving, or writing assessment yield information that can be used by multiple groups, such as faculty and adminis trators who wish to improve programs, or government officials and prospective employers who desire documentation of skill level achievement or attainment?"
Assessment (1)	Any systematic method of obtaining information from tests and other sources, used to draw inferences about characteristics of people, objects, or programs; the process of gathering, describing, or quantifying information about performance; an exercise-such as a written test, portfolio, or experiment-that seeks to measure a student's skills or knowledge in a subject area.
Assessment... (2)	A continuous process used (a) for evaluating the degree to which all programs and services contribute to the fulfillment of the primary mission; and (b) for documenting and improving the institution's effectiveness. Assessment is an ongoing process aimed at understanding and improving student learning. It involves making expectations explicit and public; setting appropriate criteria and standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those

	expectations and standards; and using the resulting information to document, explain, and improve performance. Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development. Assessment is the collection and analysis of effectiveness for all parts of the institution.
Assessment… **(2)***…for Accountability*	Is assessment of some unit (could be a department, program or entire institution) to satisfy stakeholders external to the unit itself. Results are often compared across units. Always summative. Example: to retain state approval,the achievement of a 90 percent pass rate or better on teacher certification tests by graduates of a school of education.
Assessment… **(2)***…for Improvement*	Is assessment that feeds directly, and often immediately, back into revising the course, program or institution to improve student learning results. Can be formative or summative
Assessment… **(2)***…of Individuals*	Uses the individual student, and his/her learning, as the level of analysis. Can be quantitative or qualitative, formative or summative, standards-based or value added, and used for improvement. Would need to be aggregated if used for accountability purposes. Examples: improvement in student knowledge of a subject during a single course; improved ability of a student to build cogent arguments over the course of an undergraduate career.
Assessment… **(2)***…of Institutions*	Uses the institution as the level of analysis. Can be quantitative or qualitative, formative or summative, standards-based or value added, and used for improvement or for accountability. Ideally institution-wide goals and objectives would serve as a basis for the assessment. Example: how well students across the institution can work in multi-cultural teams as sophomores and seniors.
Assessment… **(2)***…of Programs*	Uses the department or program as the level of analysis. Can be quantitative or qualitative, formative or summative, standards-based or value added, and used for improvement or for accountability. Ideally program goals and objectives would serve as a basis for the assessment. Example: how sophisticated a close reading of texts senior English majors can accomplish (if used to determine value added, would be compared to the ability of newly declared majors
Assessment… **(2)***…of Student Learning-* *Classroom Level*	Methods faculty use to collect information, early and often, on how well their students are learning what they are being taught, the purpose of classroom assessment is to provide faculty and students with information and insights needed to improve learning quality
Assessment… **(2)***…of Student Learning* *– Program Level*	An ongoing process aimed at understanding and improving student learning, involving (a)making our expectations explicit and public; (b) setting appropriate criteria and high standards for learning quality; (c) systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and (d) using the resulting information to improve performance.
Assessment… **(2)***…Course-Embedded*	"Course-embedded assessment refers to methods of assessing student learning within the class room environment, using course goals, objectives, and content to gauge the extent of the learning that is taking place. This technique generates information about what and how students are learning within the program and classroom environment, using existing information that instructors routinely collect (test performance, quizzes, essays, etc...) or through assessment instruments introduces into a course specifically for the purpose of measuring student learning."
Assessment… **(2)***…Criterion-Referenced*	"An assessment that measures what a student understands, knows, or can accomplish in relation to specific performance objectives. It is used to identify a student's specific strengths and weaknesses in relation to skills defines as the goals of the instruction, but it does not compare students to other students."
Assessment… **(2)***…Direct Measures*	"Directly evaluates student work. Examples of direct measures include exams, papers, projects, computer programs, interaction with a client, or musical performances....A direct measure requires: - A student performance such as an exam or project - A set of criteria by which to evaluate the performance

	- Analysis and interpretation of the results - A feedback loop into department/ gen ed, and/ or institutional decision-making processes"
Assessment… **(2)**…*Embedded*	Questions related to student learning objectives are embedded within course exams. For example, all sections of "research methods" could include a question or set of questions relating to your student learning objectives. Faculty score and grade the exams as usual and then copy exam questions that are linked to the student learning objectives for analysis. The findings are reported in the aggregate.
Assessment… **(2)**…*External*	Use of criteria (rubric) or an instrument developed by an individual or organization external to the one being assessed. Usually summative, quantitative, and often high-stakes (see below). Example: GRE exams.
Assessment… **(2)**…*Formative*	Formative assessment is often described as assessment for learning rather than assessment of learning and refers to all those Activities undertaken by the faculty that provide information used by faculty to modify teaching and learning activities.
Assessment… **(2)**…*Indirect*	"Student (or others) perceptions of how well students have achieved an objective"
Assessment… **(2)**…*Local*	Means and methods that are developed by an institution's faculty based on their teaching approaches, students, and learning goals. Can fall into any of the definitions here except "external assessment," for which is it an antonym. Example: one college's use of nursing students' writing about the "universal precautions" at multiple points in their undergraduate program as an assessment of the development of writing competence.
Assessment… **(2)**…*Norm-Referenced*	"An assessment designed to discover how an individual student's performance or test result compares to that of an appropriate peer group."
Assessment… **(2)**…*Qualitative*	"Assessment findings that are verbal descriptions of what was discovered, rather than numerical findings."
Assessment… **(2)**…*Quantitative*	"Assessment findings are summarized with a number that indicated the extent of learning."
Assessment… **(2)**…*Summative*	The gathering of information at the conclusion of a course, program, or undergraduate career to improve learning or to meet accountability demands. When used for improvement, impacts the next cohort of students taking the course or program. Examples: examining student final exams in a course to see if certain specific areas of the curriculum were understood less well than others; analyzing senior projects for the ability to integrate across disciplines.
Assessment Literacy	The possession of knowledge about the basic principles of sound assessment practice, including terminology, the development and use of assessment methodologies and techniques, familiarity with standards of quality in assessment. Increasingly, familiarity with alternatives to traditional measurements of learning.
Assessment Task	An illustrative task or performance opportunity that closely targets defined instructional aims, allowing students to demonstrate their progress and capabilities
Assessment Validity	The degree to which an assessment measures (a) what is intended, as opposed to (b) what is not intended, or (c) what is unsystematic or unstable.
Authentic Assessment	Evaluating by asking for the behavior the learning is intended to produce. The concept of model, practice, feedback in which students know what excellent performance is and are guided to practice an entire concept rather than bits and pieces in preparation for eventual understanding. A variety of techniques can be employed in authentic assessment. The goal of authentic assessment is to gather evidence that students can use knowledge effectively and be able to critique their own efforts. Authentic tests can be viewed as

	"assessments of enablement," in Robert Glaser's words, ideally mirroring and measuring student performance in a "real-world" context. Tasks used in authentic assessment are meaningful and valuable, and are part of the learning process. Authentic assessment can take place at any point in the learning process. Authentic assessment implies that tests are central experiences in the learning process, and that assessment takes place repeatedly. Patterns of success and failure are observed as learners use knowledge and skills in slightly ambiguous situations that allow the assessor to observe the student applying knowledge and skills in new situations over time.
Benchmark	(1) A detailed description of a specific level of student performance expected of students at particular ages, grades, or development levels. Benchmarks are often represented by samples of student work. A set of benchmarks can be used as "checkpoints" to monitor progress toward meeting performance goals within and across grade levels. In ABE, SPLs (Student Performance Levels) are examples of benchmarks; targets for instruction. (2) Student performance standards (the level(s) of student competence in a content area.) An actual measurement of group performance against an established standard at defined points along the path toward the standard. Subsequent measurements of group performance use the benchmarks to measure progress toward achievement. Examples of student achievement that illustrate points on a performance scale, used as exemplars. (See **Descriptor, Cohort.**)
Benchmark tasks	Pieces of student work selected by a group of lead teachers as exemplifying a certain score level.
Benchmarking	Comparing performances of people on the same task; raters use "anchors" to score student work, usually comparing the student performance to the "anchor"; benchmarking is a common practice in the business world.
Bias	A situation that occurs in testing when items systematically measure differently for different ethnic, gender, or age groups. Test developers reduce bias by analyzing item data separately for each group, then identifying and discarding items that appear to be biased.
Capstone Courses	Could be a senior seminar or designated assessment course. Student learning objectives can be integrated into assignments.
Cohort	A group whose progress is followed by means of measurements at different points in time.
Collective Portfolios	Faculty assemble samples of student work from various classes and use the "collective" to assess specific student learning objectives. Portfolios can be assessed by using scoring rubrics; expectations should be clarified before portfolios are examined.
Competency Test	A test intended to establish that a student has met established minimum standards of skills and knowledge and is thus eligible for promotion, graduation, certification, or other official acknowledgment of achievement.
Competency	A group of characteristics, native or acquired, which indicate an individual's ability to acquire skills in a given area
Competency-based assessment (criterion-referenced assessment)	Measures an individual's performance against a predetermined standard of acceptable performance. Progress is based on actual performance rather than on how well learners perform in comparison to others; usually still given under classroom conditions. CASAS and BEST are examples of competency-based assessments.
Concept	An abstract, general notion -- a heading that characterizes a set of behaviors and beliefs.
Content standards	(1) Broadly stated expectations of what students should know and be able to do in particular subjects and (grade) levels. Content standards define for teachers, schools, students, and the community not only the expected student skills and knowledge, but what programs should teach. For example, in Equipped for the Future (EFF), there are 16 content standards or skills, each containing key aspects which are essential for being able to apply the skills to real tasks

	or activities. "Read With Understanding," then, entails: determining the reading purpose, selecting reading strategies appropriate to that purpose, monitoring comprehension and adjusting reading strategies, analyzing the information and reflecting on its underlying meaning, and integrating it with prior knowledge to address reading purpose. In Massachusetts' Curriculum Frameworks, each of the disciplines contains its own set of broader standards (The Massachusetts Common Core of Learning), as well as its own set of strands. The strands in English Language Arts (ELA) then, are reading, writing, oral communication, and critical thinking. Under reading, there are six levels of standards around symbol mastery, phonology and decoding, word recognition, and comprehension.
Content Analysis	Is a procedure that categorizes the content of written documents. The analysis begins with identifying the unit of observation, such as a word, phrase, or concept, and then creating meaningful categories to which each item can be assigned. For example, a student's statement that "I learning that I could be comfortable with someone from another culture" could be assigned to the category of "Positive Statements about Diversity." The number of incidents that this type of response occurred can then be quantified and compared with neutral or negative responses addressing the same category.
Continuous Quality Improvement (CQI)	"...the quality movement brings with it a sense of collective responsibility for learning, a habit of listening to the people we serve, a preference for data, an ethic of continuous improvement, a determination to develop fully the talent of every learner, and an acknowledgment that we are professionally accountable to one another and to those we serve for results."
Core Concepts (ACLS)	The core concept of each framework articulates why the subject matter is important in the lives of the adult learner. The core concepts underlie the goals, the principles, knowledge, and skills the adult learner needs to have ownership of the subject matter.
Countable Outcomes (ACLS)	Results that can be quantified; all measures of student outcomes except learning gains, including executive function skills, and affective-related measures. Learning gains are gains in speaking, listening, reading, writing, and numeracy. Executive function skills include problem-solving, critical thinking, and metacognition. Affective-related measures include self-esteem, self confidence, and interpersonal communication. Examples of Countable Outcomes include: number of people who get jobs, number of people who register to vote, number of people who achieve a GED.
Criteria	Things to look at in judging the effectiveness, success, or value of a particular thing.
Criterion-referenced assessment (competency-based assessment)	An assessment where an individual's performance is compared to a specific learning objective or performance standard and not to the performance of other students. Criterion-referenced assessment tells us how well students are performing on specific goals or standards rather that just telling how their performance compares to a norm group of students nationally or locally. In criterion-referenced assessments, it is possible that none, or all, of the examinees will reach a particular goal or performance standard.
Critical Thinking	"Critical thinking is defined in seven major categories: interpretation, analysis, evaluation, inference, presenting arguments, reflection, and dispositions. Within each of these categories are skills and sub-skills that concretely define critical thinking. No single test measures every aspect of critical thinking; in fact, even with all of the tests combined, all critical skills are not assessed. Although a single comprehensive test is not available, many tests are still adequate measures of some critical thinking skills."
Descriptor	A set of signs used as a scale against which a performance or product is placed in an evaluation. An example from Grant Wiggins' Glossary of Useful Terms Related to Authentic and Performance Assessments is taken from "the CAP writing test where a 5 out of a possible 6 is described: 'The student describes the problem adequately and argues convincingly for at least one solution . . . without the continual reader awareness of the writer of a 6.'" Descriptors allow assessment to include clear guidelines for what is and is not valued in student work. Wiggins adds that "[t]he word 'descriptor' reminds us that justifiable value judgments are made by know how to empirically describe the traits of work we do and do not

	value."
Educational (Instructional) Objective	"A statement that defines an intended outcome of instruction. It describes what a successful learner is able to do at the end of the lesson or course, defines the conditions under which the behavior is to occur, and often specifies the criterion or standard of acceptable performance."
Equity	Equity is the concern for fairness, i.e., that assessment are free from bias or favoritism. An assessment that is fair enables all children to show what they can do. At minimum, all assessments should be reviewed for (a) stereotypes, (b) situations that may favor one culture over another, (c) excessive language demands that prevent some students from showing their knowledge, and (d) the assessment's potential to include students with disabilities or limited English proficiency
Evaluation	When used for most educational settings, evaluation means to measure, compare, and judge the quality of student work, schools, or a specific educational program.
Evaluation of Instruction	Processes used to evaluate and improve instruction, which include a contractually mandates process whereby students provide feedback on their perceptions of teaching effectiveness.
Evidence	"Evidence is the substance of what is advanced to support a claim that something is true." Evidence is "intentional and purposeful, entails interpretation and reflection, integrated and holistic, can be both quantitative and qualitative, and can be either direct or indirect."
Exit Surveys	Students leaving the college, generally graduating students are interviewed or surveyed to obtain feedback. Data obtained can address strengths and weaknesses of an institution or program and or to assess relevant concepts, theories or skills.
Expected Outcomes	(1) Will provide a basis for monitoring and evaluation. (2) Predicted results must be documented before an assessment takes place. (3) Are sentences that describe what student should be able to demonstrate during or at the end of a specific course. (4) Are the predicted results by unit personnel of what will be the end state when current goals and objectives are meet.
Focus Groups	"Are a series of carefully planned discussions among homogenous groups of 6-10 respondents who are asked a carefully constructed series of open-ended questions about their beliefs, attitudes, and experiences. The session is typically recorded and later the recording is transcribed for analysis. The data is studied for major issues and reoccurring themes along with representative comments."
Formative assessment	Assessment that provides feedback to the teacher for the purpose of improving instruction.
Grade Equivalent	A score that describes student performance in terms of the statistical performance of an average student at a given grade level. A grade equivalent score of 5.5, for example, might indicate that the student's score is what could be expected of a average student doing average work in the fifth month of the fifth grade. This score allows for a theoretical or approximate comparison across grades. It ranges from September of the kindergarten year (K. O.) to June of the senior year in high school (12.9) Useful as a ranking score, grade equivalents are only a theoretical or approximate comparison across grades. In this case, it may not indicate what the student would actually score on a test given to a midyear fifth grade class.
Holistic Method	In assessment, assigning a single score based on an overall assessment of performance rather than by scoring or analyzing dimensions individually. The product is considered to be more than the sum of its parts and so the quality of a final product or performance is evaluated rather than the process or dimension of performance. A holistic scoring rubric might combine a number of elements on a single scale. Focused holistic scoring may be used to evaluate a limited portion of a learner's performance.
Impacts	Changes that occur in the family, community, and larger society as a consequence of participation in adult literacy education.

Indicators	(1) Measures used to track performance over time. Accountability systems commonly use input indicators (provide information about the capacity of the system and its programs); process indicators (track participation in programs to see whether different educational approaches produce different results); output indicators (short-term measures of results); outcome indicators (long-term measures of outcomes and impacts). (2) "Statistics that reflect something about the performance or status of some aspects of the educational program."
Inter-rater reliability	The consistency with which two or more judges rate the work or performance of test takers.
Iterative	A term used in research to refer to the repetition of a cycle of processes with an eye toward moving ever more closely toward desired results. In EFF for example, the term is used to describe how EFF has progressively refined the concepts and components of EFF through research, feedback from customers (learners, practitioners, stakeholders, and policymakers), incorporation of research developments in related areas, further feedback from customers, etc., in an effort to be responsive and credible to their constituents.
Learning	Learning not only involves the acquisition of basic academic skills and the broad-based knowledge of a liberal education but goes beyond these to include inspiring and enabling students to become autonomous learners, critical thinkers, creative problem-solvers, and thoughtful, reflective citizens with a passion for life-long learning.
Learning Outcomes (ACLS)	Learning outcomes describe the learning mastered in behavioral terms at specific levels. In other words, what the learner will be able to do.
Matrices	Are used to summarize the relationship between student learning objectives and courses, course assignments, or course syllabus objectives to examine congruence and to ensure that all objectives have been sufficiently structured into the curriculum.
Mean	One of several ways of representing a group with a single, typical score. It is figured by adding up all the individual scores in a group and dividing them by the number of people in the group. Can be affected by extremely low or high scores.
Measurability	"...refers to how the outcome is operationally defined and measured, including the methodological soundness of the chosen measures."
Measurement	(1) Process of quantifying any human attribute pertinent to education without necessarily making judgments or interpretations. (2) Quantitative description of student learning and qualitative description of student attitude.
Median	The point on a scale that divides a group into two equal subgroups. Another way to represent a group's scores with a single, typical score. The median is not affected by low or high scores as is the mean. (See **Norms.**)
Meta-cognition	The knowledge of one's own thinking processes and strategies, and the ability to consciously reflect and act on the knowledge of cognition to modify those processes and strategies.
Mission Statement	(1) The Program's mission statement should provide an overview of the department/program's philosophy, goals, and objectives. Basically, it should embody the program's purpose and the faculty's priorities for the program. (2) The mission statement is the initial point of reference for a program. It is a brushstroke statement (not measurable) of the general values and principles which guide the curriculum and the larger context in which more specific curricular goals will fit. In broad terms, it is your program's vision that will set a tone and philosophical position of *what* you do, for *whom* you do it, and *how* you will get it done. It addresses the following questions: 1. What are the general values and broad principles that will guide the program? 2. What are the general characteristics and abilities of the ideal graduate? 3. Whom will the program serve and how? 4. In what specific ways is the program mission consistent with the college's mission and strategic plan?

Multidimensional Assessment	Assessment that gathers information about a broad spectrum of abilities and skills (as in Howard Gardner's theory of Multiple Intelligences.
Normal Curve Equivalent	A score that ranges from 1-99, often used by testers to manipulate data arithmetically. Used to compare different tests for the same student or group of students and between different students on the same test. An NCE is a normalized test score with a mean of 50 and a standard deviation of 21.06. NCEs should be used instead of percentiles for comparative purposes. Required by many categorical funding agencies, e.g., Chapter I or Title I.
Norms	A performance standard that is established by a reference group and that describes average or typical performance. Usually norms are determined by testing a representative group and then calculating the group's test performance.
Objective Test	A test for which the scoring procedure is completely specified enabling agreement among different scorers. A correct-answer test.
On-Demand Assessment	An assessment process that takes place as a scheduled event outside the normal routine. An attempt to summarize what students have learned that is not embedded in classroom activity.
Opportunity to Learn	(1) To provide students with the teachers, materials, facilities, and instructional experiences that will enable them to achieve high standards. Opportunity to learn (OTL) is what takes place in classrooms that enables students to acquire the knowledge and skills that are expected. OTL can include what is taught, how it is taught, by whom, and with what resources. (2) A standard that provides students with the teachers, materials, facilities, and instructional experiences that will enable them to achieve high standards. Opportunity to learn is what takes place in classrooms that enables students to acquire the knowledge and skills that are expected. OTL can include what is taught, how it is taught, by whom, and with what resources.
Outcome	(1) An operationally defined educational goal, usually a culminating activity, product, or performance that can be measured. (2) Changes in learners, such as learning gains in reading and writing, promotions at work, or increased self-confidence that occur as a direct result of their participation in adult literacy education; knowledge, attitudes, skills, etc., that the student or learner acquires as a result of a learning experience. (3) Used to describe the anticipated or achieved results of programs or the accomplishment of institutional objectives, as demonstrated by such indicators as student attitudes, knowledge and/or performance.
Performance Criteria	The standards by which student performance is evaluated. Performance criteria help assessors maintain objectivity and provide students with important information about expectations, giving them a target or goal to strive for.
Performance standards	1. A statement or description of a set of operational tasks exemplifying a level of performance associated with a more general content standard; the statement may be used to guide judgments about the location of a cut score on a score scale; the term often implies a desired level of performance. 2. Explicit definitions of what students must do to demonstrate proficiency at a specific level on the content standards; for example, in Massachusetts' Curriculum Frameworks in the area of 'reading', there are six levels for each of four standards. Under the standard "comprehension", performance can range from "develop vocabulary" to "interpret charts & graphs" to "recognize a variety of genres & styles."
Performance-Based Assessment	Direct, systematic observation and rating of student performance of an educational objective, often an ongoing observation over a period of time, and typically involving the creation of products. The assessment may be a continuing interaction between teacher and student and should ideally be part of the learning process. The assessment should be a real-world performance with relevance to the student and learning community. Assessment of the performance is done using a rubric, or analytic scoring guide to aid in objectivity. Performance-based assessment is a test of the ability to apply knowledge in a real-life setting. Performance of exemplary tasks in the demonstration of intellectual ability. Evaluation of the product of a learning experience can also be used to evaluate the effectiveness of teaching methods.

	Stiggins defines performance-based assessment as the use of performance criteria to determine the degree to which a student has met an achievement target. Important elements of performance-based assessment include clear goals or performance criteria clearly articulated and communicated to the learner; the establishment of a sound sampling that clearly envisions the scope of an achievement target and the type of learning that is involved (use of problem-solving skills, knowledge acquisition, etc.) Attention to extraneous interference (cultural biases, language barriers, testing environment, tester biases) and establishment of a clear purpose for the data collected during the assessment before the assessment is undertaken, keeping in mind the needs of the groups involved (teachers, students, parents, etc.) (from an article by Richard J. Stiggins, *"The Key to Unlocking High-Quality Performance Assessments." Assessment: How Do We Know What They Know?* ASCD, 1992.
Planning	The development of a design or scheme of arrangement with a definite purpose. Institutional planning may be of the education program, the physical plant, or budgets and finances, and is intended to accomplish the purposes of the institution.
Portfolio	A systematic and organized collection of a student's work that exhibits to others the direct evidence of a student's efforts, achievements, and progress over a period of time. The collection should involve the student in selection of its contents, and should include information about the performance criteria, the rubric or criteria for judging merit, and evidence of student self-reflection or evaluation. It should include representative work, providing a documentation of the learner's performance and a basis for evaluation of the student's progress. Portfolios may include a variety of demonstrations of learning and have been gathered in the form of a physical collection of materials, videos, CD-ROMs, reflective journals, etc.
Portfolio assessment	(1) A portfolio is a collection of work, usually drawn from students' classroom work. A portfolio becomes a portfolio assessment when (a) the assessment purpose is defined; (b) criteria or methods are made clear for determining what is put into the portfolio, by whom, and when; and (c) criteria for assessing either the collection or individual pieces of work are identified and used to make judgments about performance. Portfolios can be designed to assess student progress, effort, and/or achievement, and encourage students to reflect on their learning. (2) Portfolios may be assessed in a variety of ways. Each piece may be individually scored, or the portfolio might be assessed merely for the presence of required pieces, or a holistic scoring process might be used and an evaluation made on the basis of an overall impression of the student's collected work. It is common that assessors work together to establish consensus of standards or to ensure greater reliability in evaluation of student work. Established criteria are often used by reviewers and students involved in the process of evaluating progress and achievement of objectives.
Problem Solving	"Problem solving is defined as understanding the problem, being able to obtain background knowledge, generating possible solutions, identifying and evaluating constraints, choosing a solution, functioning within a problem-solving group, evaluating the process, and exhibiting problem solving dispositions. There is not an adequate measure of problem-solving skills, and the most comprehensive measure is the ETS Tasks in Critical Thinking. **Note:** There is considerable overlap in critical thinking and problem solving. For instance, the ability to state a problem; evaluate factors surrounding the problem; create, implement, and adjust solutions as needed; analyze the process and fit of a solution; as well as having an active inclination towards thinking, solving problems, and being creative are all skills necessary for both problem solving and critical thinking. Therefore, clear distinctions between problem solving and critical thinking may prove difficult to assess and tease apart in application."
Process	A generalized method of doing something, generally involving steps or operations which are usually ordered and/or interdependent. Process can be evaluated as part of an assessment, as in the example of evaluating a student's performance during prewriting exercises leading up to the final production of an essay or paper.
Product	The tangible and stable result of a performance or task. An assessment is made of student performance based on evaluation of the product of a demonstration of learning.

Profile	A graphic compilation of the performance of an individual on a series of assessments.
Program Goals	General expectations the faculty members have for ideal graduates of their program. These goals should be in alignment with the program's mission statement
Project	A complex assignment involving more than one type of activity and production. Projects can take a variety of forms; some examples are a mural construction, a shared service project, or other collaborative or individual effort.
Quality Enhancement Plan (QEP)	Part of the SACS accreditation and reaffirmation process. This document is submitted four to six weeks in advance of the on-site review by the Commission, is a document developed by the institution that (1) includes a process identifying key issues emerging from institutional assessment, (2) focuses on learning outcomes and/or the environment supporting student learning and accomplishing the mission of the institution, (3) demonstrates institutional capability for the initiation, implementation, and completion of the QEP, (4) includes broad-based involvement of institutional constituencies in the development and proposed implementation of the QEP, and (5) identifies goals and a plan to assess their achievement. The QEP should be focused and succinct (no more than seventy-five pages of narrative text and no more than twenty-five pages of supporting documentation or charts, graphs, and tables).
Quality program indicator	A variable reflecting effective and efficient program performance; distinguished from a measure (data used to determine the level of performance) and a performance standard (the level of acceptable performance in terms of a specific numeric criterion).
Qualitative Data	'Soft' data that approximates but does not measure the attributes, characteristics, properties, etc., of a thing or phenomenon. *Qualitative data describes*
Quantitative Data	'Hard,' measurable (through a suitable measure such as dollars, degrees, inches, millimeters) and verifiable data amenable to statistical manipulation. *Quantitative data defines*
Quartile	The breakdown of an aggregate of percentile rankings into four categories: the 0-25th percentile, 26-50th percentile, etc.
Quintile	The breakdown of an aggregate of percentile rankings into five categories: the 0-20th percentile, 21-40th percentile, etc.
Rater	A person who evaluates or judges student performance on an assessment against specific criteria.
Rater Training	The process of educating **raters** to evaluate student work and produce dependable scores. Typically, this process uses **anchors** to acquaint raters with criteria and scoring rubrics. Open discussions between raters and the trainer help to clarify scoring **criteria** and **performance standards**, and provide opportunities for raters to practice applying the rubric to student work. Rater training often includes an assessment of rater reliability that raters must pass in order to score actual student work.
Reflective Essays	"Generally are brief (five to ten minute) essays on topics related to identified student learning objectives, although they may be longer when assigned as homework. Students are asked to reflect on a selected issue. Content analysis is used to analyze results."
Reliability	(1) How accurately a score will be reproduced if an individual is measured again. The degree to which the results of an assessment are dependable and consistently measure particular student knowledge and/or skills. Reliability is an indication of the consistency of scores across raters, over time, or across different tasks or items that measure the same thing. Thus, reliability may be expressed as (a) the relationship between test items intended to measure the same skill or knowledge (item reliability), (b) the relationship between two administrations of the same test to the same student or students (test/retest reliability), or (c) the degree of agreement between two or more raters (rater reliability). An unreliable assessment cannot be valid.

	(2) "An indicator of score consistency overtime or across multiple evaluations. Reliable assessment is one in which the same answers receive the same score regardless of who performs the scoring or how or where the scoring takes place. The same person is likely to get approximately the same score across multiple test administrations."
Rubric	(1) In general a rubric is a scoring guide used in subjective assessments. A rubric implies that a rule defining the criteria of an assessment system is followed in evaluation. A rubric can be an explicit description of performance characteristics corresponding to a point on a rating scale. A scoring rubric makes explicit expected qualities of performance on a rating scale or the definition of a single scoring point on a scale. (2) Specific sets of criteria that clearly define for both student and teacher what a range of acceptable and unacceptable performance looks like. Criteria define descriptors of ability at each level of performance and assign values to each level. Levels referred to are proficiency levels which describe a continuum from excellent to unacceptable product. (3) A set of criteria that is used to define levels of achievement and assess performance levels.
Sampling	A way to obtain information about a large group by examining a smaller, randomly chosen selection (the sample) of group members. If the sampling is conducted correctly, the results will be representative of the group as a whole. Sampling may also refer to the choice of smaller tasks or processes that will be valid for making inferences about the student's performance in a larger domain. "Matrix sampling" asks different groups to take small segments of a test; the results will reflect the ability of the larger group on a complete range of tasks.
Scale	A classification tool or counting system designed to indicate and measure the degree to which an event or behavior has occurred.
Scale scores	(1) A score to which raw scores are converted by numerical transformation (e.g., conversion of raw scores to percentile ranks or standard scores); units of a single, equal-interval scale that are applied across levels of a test; for example, on TABE 7 & 8, scale scores are expressed as numbers that may range from 0 through 999. (2) Scores based on a scale ranging from 001 to 999. Scale scores are useful in comparing performance in one subject area across classes, schools, districts, and other large populations, especially in monitoring change over time.
Scaled Score	"The Scaled Score is a technique for averaging grades where the degree of difficulty varies from one assignment to the next. It also indicates the number of standard deviations your score is above or below the class average. The Scaled Score ranges from 200 to 800 points, with a mean of 500 and a standard deviation of 100. So, if you have a scaled score of 490, your performance was a little below average; if your scaled score is 600, your score is one standard deviation above the class mean or average."
Score	A rating of performance based on a scale or classification.
Scoring	A package of guidelines intended for people scoring performance assessments. May include instructions for raters, notes on training raters, rating scales, samples of student work exemplifying various levels of performance.
Scoring Criteria	Rules for assigning a score or the dimensions of proficiency in performance used to describe a student's response to a task. May include rating scales, checklists, answer keys, and other scoring tools. In a subjective assessment situation, a rubric.
Self-Assessment	A process in which a student engages in a systematic review of a performance, usually for the purpose of improving future performance. May involve comparison with standard, established criteria. May involve critiquing one's own work or may be a simple description of the performance. Reflection, self-evaluation, metacognition, are related terms.
Standard error of measurement	The difference between an observed score and the corresponding true score or proficiency; the standard deviation of an individual's observed scores from repeated administrations of a test or parallel forms of a test, under identical conditions. Because such data cannot generally be collected, the standard error of measurement is usually estimated from group data.

Standardization	A consistent set of procedures for designing, administering, and scoring an assessment. The purpose of standardization is to assure that all students are assessed under the same conditions so that their scores have the same meaning and are not influenced by differing conditions. Standardized procedures are very important when scores will be used to compare individuals or groups.
Standardized testing	A test designed to be given under specified, standard conditions to obtain a sample of learner behavior that can be used to make inferences about the learner's ability. Standardized testing allows results to be compared statistically to a standard such as a norm or criteria. If the test is not administered according to the standard conditions, the results are invalid.
Standardized Achievement and Self-Report Tests	Select standardized tests that are aligned to your specific student learning objectives. Score, compile, and analyze data. Develop local norms to track achievement across time and use national norms to see how your students compare to those on other campuses.
Standards	Standards are a level of accomplishment all students are expected to meet or exceed. Standards do not necessarily imply high quality learning; sometimes the level is a lowest common denominator. Nor do they imply complete standardization in a program; a common minimum level could be achieved by multiple pathways and demonstrated in various ways. Examples: carrying on a conversation about daily activities in a foreign language using correct grammar and comprehensible pronunciation; achieving a certain score on a standardized test.
Student performance level (SPL)	A standard description of a student's (ESOL) language ability at a given level in terms of speaking, listening, reading, writing, and the ability to communicate with a native speaker; a profile of skill levels for a student can thus be assigned and used for placement, instructional, or reporting purposes.
Student Learning Goals	Learning goals are specific statements derived from your program goals. These goals should focus on what the student will learn.
Student Outcomes	"Outcomes statements should never answer the questions, 'Why these goals, these objectives?' with the answer, 'So that the student can...' They should specify what students should be able to do at various stages of their development.
Student Learning Outcome	(1) Describe the broadest goals for the unit, ones that require higher level thinking abilities (2) Require students to synthesize many discreet skills or areas of content (3) Ask students to produce something – papers, projects, portfolios, demonstrations, performances, art works, exams, etc. – that applies what they have learned (4) Require faculty to evaluate or assess the product to measure a student's achievement or mastery of the outcomes.
Summative assessment	A culminating assessment, which gives information on students' mastery of content, knowledge, or skills.
Triangulation	A process of combining methodologies to strengthen the reliability of a design approach; when applied to alternative assessment, triangulation refers to the collection and comparison of data or information from three difference sources or perspectives.
Validity	The extent to which an assessment measures what it is supposed to measure and the extent to which inferences and actions made on the basis of test scores are appropriate and accurate. For example, if a student performs well on a reading test, how confident are we that that student is a good reader? A valid standards-based assessment is aligned with the standards intended to be measured, provides an accurate and reliable estimate of students' performance relative to the standard, and is fair. An assessment cannot be valid if it is not reliable.
Value added	Refers to the increase in learning that occurs during a course, program, or undergraduate education. Can either focus on the individual student (how much better a student can write, forexample, at the end than at the beginning) or on a cohort of students (whether senior papers demonstrate more sophisticated writing skills--in the aggregate--than freshmen papers). Requires a baseline measurement for comparison.

APPENDIX B: DEFINITION OF MILES COLLEGE UNITS

Educational Programs: Also Educational Program Units, Educational Units. A program for which academic credit is awarded, and is approved by the faculty and administration.

Educational Program Units at Miles College:

- Academic Affairs, Office of
- Accounting
- Biology
- Biology/Biology Education
- Biology/General Science Education
- Business Administration
- Chemistry
- Chemistry/Chemistry Education
- Child Development
- Communications
- Computer Information Systems
- Criminal Justice (Traditional and Weekend)
- Early Childhood
- Elementary Education
- English
- English/Language Arts Education
- Environmental Science
- General Education
- History
- History/Social Science Education
- Management (Traditional and Weekend)
- Management Information Systems
- Mathematics
- Mathematics/Mathematics Education
- Music
- Music Education-Choral
- Music Education-Instrumental
- Political Science
- Social Work

Educational Support Units: Units that, while not primarily instructional in nature, contribute directly to student learning or instruction.

Educational Support Units at Miles College:

- Athletics
- Career Planning
- Counseling, Advising, and Testing
- Dean of Chapel
- Department of Freshman Studies
- Financial Aid
- Health Services
- Information Technology
- Learning Resource Center
- Student Affairs, Office of
- Resident Life, Student Life and Leadership
- Student Support Services
- Upward Bound

Administrative Support Units: Units that provide services which maintain the institution and are essential to its operations, but do not have a direct impact on the institution's instructional program.

Administrative Support Units at Miles College:

- Academic Records
- Accounting/Payroll/Internal Auditor
- Alumni Affairs, Office of
- Bookstore
- Business Affairs, Office of
- Cafeteria Services
- College Relations, Office of
- College Security
- Community Development
- Development, Office of
- Enrollment Management, Office of
- Human Resources
- Research, Outcomes, Assessment, and Institutional Effectiveness, Office of
- Mailroom
- Physical Plant
- Sponsored Programs, Office of
- Title III, Office of