Coconino Community College

Student Learning Assessment Reporting Template Instructions

Who Fills Out Assessment Progress Reports

Each academic department is to have an assessment plan in place and report progress annually.   District-wide assessment standards are:

1. The department has identified measurable expected student learning outcomes.
2. Each outcome should have an assessment measure used to assess that outcome.
3. Department must have a minimum of two assessment measures in place.
4. Department should report results for assessment measures, even if they are incomplete, or if a full set of data has yet to be collected.
5. Assessment of student learning at the course-level feeds into program-level assessment.
6. Department gathers, analyzes, and interprets both direct and indirect measures of student learning.
7. Department makes a clear connection between assessment findings and how they interpret findings in relation to meeting stated goals.
8. Department communicates assessment results to internal and external constituents (students, faculty, and the community).
9. Department describes changes or improvements that have been made based on assessment findings.
10. Department makes a clear connection between assessment findings and areas of potential improvement.
11. Department involves alumni, employers, and other external constituents in their assessment of curriculum and/or student learning.

Student Learning Outcomes

A student learning outcome is a relatively broad statement of overall intended end result of an educational program. One way to a write outcome statement is to finish the sentence, "Students will be able to (insert specific ability which should be met at a specific point in time)." When writing objectives, vague words and phrases should be avoided (such as 'gain a good grasp of', 'are exposed to', 'acquire', 'have knowledge of', 'understand', 'be familiar with'). Instead use action verbs that provide more description of how students will show that specific knowledge, skills, and abilities are obtained (such as illustrate, differentiate, analyze, criticize, translate, summarize). A helpful tool in finding appropriate words is the Bloom's Polygon (see appendix)

Examples of measurable objectives at CCC include:

- Graduating organizational communication majors will demonstrate growth and competence in writing and analytical skills. Specifically, students will demonstrate effective use of language, clarity of expression, critical thinking, and ability to apply theoretical knowledge to actual cases, research skills, and appropriate organizational structure.
- Students should be able to synthesize personal reality with the larger ethnic minority groups realities through theoretical and practical knowledge gained in ANT courses.
- Be able to do political analysis- this implies the ability to think critically about and find rigorously defensible answers to political questions as well as the ability to understand and use empirical and other analytical methods in the pursuit of answers to political questions.
- Demonstrate food preparation, presentation and menu planning skills.

Assessment Instruments

Instruments used in assessment vary by discipline. The appendix provides additional information concerning instruments that are commonly used at the college level.

Direct and Indirect Measures

At least one direct and one indirect instrument should be used. Direct measures are those that directly assess student learning (juried oral presentations, rated course embedded questions, licensure rates). Indirect measures are those that provide information from the student on what they have learned rather than demonstrating it (surveys, interviews, focus groups). Please see the appendix for a listing of types of direct and indirect measures.

Formative and Summative Assessment

Formative and Summative refer to when during a student's course of study the assessment takes place. Formative assessment is focused on improvement (improve student learning, improve teaching) while summative assessment is focused on judgment. A formative assessment takes place in time to make changes, or as Weston, McAlpine, and Bordonaro, (1995) states, "The purpose of formative evaluation is to validate or ensure that the goals of the instruction are being achieved and to improve the instruction, if necessary, by means of identification and subsequent remediation of problematic aspects." Summative assessment on the other hand evaluates the learning process in its entirety. Did the students learn what you expected them to learn? Assessment plans should include both formative and summative forms of assessment.

> *"When the cook tastes the soup, that's formative; when the guests taste the soup, that's summative." --Robert Stakes*

Description of Assessment Instruments

Describe the instrument (survey, rubric, national exam and explain who it is administered to, when it is used, how it is utilized, and benchmarking scores if determined. Examples of the instruments used should be attached to the completed template.

Examples of assessment instrument descriptions include:

Project report	A student must either perform research and write a thesis or complete a project and write a project report. Both of these require a literature search and an analysis of the materials that are related to the thesis or project work. The thesis or report is generally submitted during the student's final semester. The student's advisor fills out a form indicating the student's performance on the report.
Exit statement	A one-page exit statement that (a) reflects upon and synthesizes their overall experience in a program, specifically as it relates to their respective disciplinary fields; (b) assesses the overall effectiveness of the department.
Employment survey of graduates	Survey asks supervisors to comment on the student's preparation for a mathematically oriented career. The preparation includes specific knowledge, the ability to use that knowledge in a professional environment, and the ability to continue technical learning both in the classroom and by the independent study.
Internship self-evaluation tool	Self-evaluation completed by students at completion of internship.

Course-Level Assessment

Course-level assessment provides the assurance that students are gaining elements (skill/knowledge) of the student learning objectives as they progress through their course of study. Consider the first step of this process to be the mapping of where specific objectives are met in each of the department courses. Use the Course-Level Mapping worksheet to assist in this process. After mapping, determine specific objectives to measure at various stages/specific courses throughout a student's course of study.

Summary of Collected Data

The summary of collected data section is a place to synthesize the data that you have collected from your listed instruments that show how students are meeting the learning objectives.

- Make sure to list which instrument was used to collect the specific data.
- Please report findings even if they are incomplete.
- Include information regarding how many students were assessed by each assessment instrument.

- Note how these findings compare with earlier results, other cohorts, etc.
- If a standardized test was utilized also note how the data compares to other institutions or other cohorts over time.
- If other evidence is found that illustrates that students are meeting the learning objectives, consider adding the instrument from which this data was collected into the assessment plan.

Examples of data summaries C include:

Comprehensive exam	Results 06-07: 19 students took the exam, 8 received an excellent rating, 2 received a proficient rating, 2 received an adequate rating, 5 received limited ratings, and 2 received deficient ratings. The deficient students with the chair and received copies of their exams with comments collated from other faculty; their teachers worked with students on idea development and students took Lab work on grammar and spelling. One deficient student is a strong student who seemed overcome by nerves. These ratings are consistent with past academic years.
Exit survey	The exit survey predictably indicates that students are frustrated at the fact that ANT cannot offer a greater variety of courses on a more regular basis. Students consistently feel as though the Department has accomplished the goals and objectives outlined in section 1.
Exit exam	During the 2006-2007academic year, 51 students took the Exit Exam. During the Fall, 2006 semester, 14 students took the Exit Exam. Mean score was 51.1 (73.0%), standard deviation = 6.8. During the Spring, 2007semester, 37 students took the Exit Exam, with a mean score of 51.2 (73.1%), with a standard deviation of 7.1. Range was 37 to 65. Exams beginning with the Fall 2006 had a different suite of questions. A comparison between the old test and results from Fall 2005 to Fall 2006 exams are being analyzed. Given the general nature of the exam it is believed that students are demonstrating a proficiency in the stated goals.
Capstone course	Between fall and spring semesters, 20 students completed the capstone course evaluated and their work was evaluated using the attached rubric. While the department has not conducted an elaborate statistical analysis, it has noted that of its five objectives the one for which the greatest number of students received either 'Poor' or 'Fair'

	is 'Research Skills' (Objective 2); the number was only three, low, but departmental faculty consider it worth considering as a possible indication of a trouble spot.
Academic Profile exam	Sophomore scored above the mean on the academic profile in critical thinking. (Mean summary score was 448 and the National mean for Community Colleges was 444.1. Benchmark Met**.**

Data Interpretation

The data interpretation should answer the following questions:

- Based on the data collected, are students meeting the learning objectives?
- Are students surpassing your expectations in any areas?
- Are there areas of concern, areas that need improvement?
- Are the instruments producing useful information?
- Are any changes needed to the objectives, the instruments, or the methods utilized to assess the objectives?

Consider answering the questions for each learning objective in turn as illustrated in the first example.

Examples:

- For Goal 2: Overall our direct measures show that the student learning has not significantly improved or deteriorated in the past year. Our indirect measure of the Exit Survey does provide a couple of areas of concern particularly in the areas of time management and interpersonal skills. We need to address this in greater detail in the upcoming year. Alternatively, one of our weakest areas in the past, team skills, showed a huge improvement, from 41% to 61%.
- In terms of student survey data, we were pleased to see the high ratings for the courses overall. For example, more than 90% of the students rated their career preparedness experience as *excellent* or *very good*. Our goal is to examine the curriculum more closely this year, so that ratings for all courses and in all Department areas are rated as *excellent* or *very good*.   The narrative comments, too, help us see the strengths of the Department and provide us with useful suggestions for Department improvement. We will be discussing these points this fall as we begin to consider an ongoing assessment protocol for the Department.

Improvements

This section should list any improvements made to the department based on data obtained through the assessment process. Improvements fall into three broad categories: Curricular, Academic Processes, and Assessment Processes. Examples include:

Assessment Based Improvements

Curricular	Academic Processes	Assessment Processes
Course Content	*Personnel*	*Objectives*
Prerequisites	*Advising*	*Measurement Instruments*
Course Sequence	*Information Sharing*	*Data Collection and Analysis*
Department Requirements	*Technology*	*Personnel Involvement*
Adding/Deleting Courses		

Curricular	Upon an analysis of student work in an entry level course, the course has been redesigned and standardized across sections to ensure that students have the skills they need to take upper-division art history courses.
Academic Processes	Past Major Surveys have pointed to an important curricular gap in the area of Middle Eastern/North African History. This fall the department has requested a new hire in this area.
Assessment Processes	A lack of quantitative data in the past led us to develop two rubrics for the Qualities of Effective Counselors Skills Rubric and the Personal Characteristics Rubric.

Faculty Involvement

The assessment process cannot work without the input of faculty. Faculty should participate in as many aspects of the process as possible. It is hoped that faculty meet on a regular basis to discuss outcomes, revise aspects of the assessment plan, receive and review assessment findings, and suggest and implement improvements and receive encouragement for a job well done.

Roles & Communication

The assessment process is a collaborative activity involving as many members of the department as possible. Questions such as who creates the annual report, who collects and maintains assessment data, how is information regarding the assessment process disseminated, how often does the department meet to discuss assessment, and how were faculty involved in creating potential improvements should be answered in this section.

External Constituents

It is important for external constituents such as alumni, employers, practicum supervisors, advisory board members, community partners, potential employers, etc. to take part in the assessment process. Every effort possible should be made to include these constituents in some part of the assessment of either student learning (are students meeting standards expected the community, do alumni feel they learned what they needed for employment) and the curriculum (do external constituents, especially future employers, feel the

department is providing the training, skills, knowledge that is required for employment; do alumni have suggestions as to what areas the curriculum is satisfactory or needs improvement).
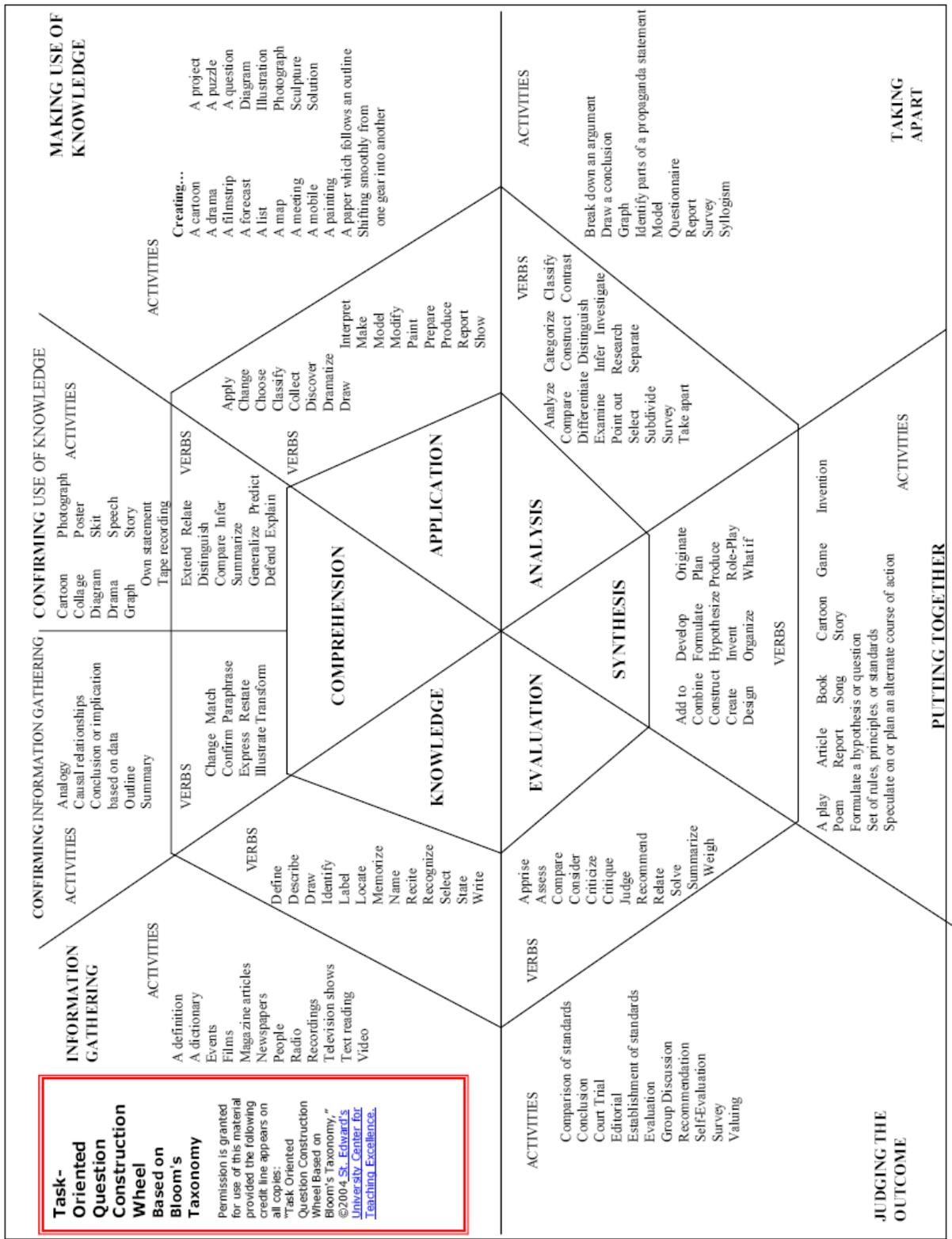
Consider having external constituents attend and complete rubrics for class presentations or poster sessions, have them fill out evaluations of student projects, critique thesis and projects. Ask graduating seniors for feedback through focus groups, exit interviews or surveys. Feedback of these types provides unique information that can strengthens departments and assist in the attainment of learning objectives.

APPENDIX

Bloom's Polygon
Direct and Indirect Methods of Assessment
Overview of Rubrics
Course-Level Assessment Mapping Worksheet
Assessment Terminology

Task-Oriented Question Construction Wheel Based on Bloom's Taxonomy

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INFORMATION GATHERING

ACTIVITIES
- A definition
- A dictionary
- Events
- Films
- Magazine articles
- Newspapers
- People
- Radio
- Recordings
- Television shows
- Text reading
- Video

KNOWLEDGE

VERBS
- Define
- Describe
- Draw
- Identify
- Label
- Locate
- Memorize
- Name
- Recite
- Recognize
- Select
- State
- Write

CONFIRMING INFORMATION GATHERING

ACTIVITIES
- Analogy
- Causal relationships
- Conclusion or implication based on data
- Outline
- Summary

COMPREHENSION

VERBS
- Change
- Match
- Confirm
- Paraphrase
- Express
- Restate
- Illustrate
- Transform

CONFIRMING USE OF KNOWLEDGE

ACTIVITIES
- Cartoon
- Collage
- Diagram
- Drama
- Graph
- Photograph
- Poster
- Skit
- Speech
- Story
- Own statement
- Tape recording

VERBS
- Extend
- Relate
- Distinguish
- Compare
- Infer
- Summarize
- Generalize
- Predict
- Defend
- Explain

APPLICATION

VERBS
- Apply
- Change
- Choose
- Classify
- Collect
- Discover
- Dramatize
- Draw
- Interpret
- Make
- Model
- Modify
- Paint
- Prepare
- Produce
- Report
- Show

MAKING USE OF KNOWLEDGE

ACTIVITIES

Creating…
- A cartoon
- A drama
- A filmstrip
- A forecast
- A list
- A map
- A meeting
- A mobile
- A painting
- A project
- A puzzle
- A question
- Diagram
- Illustration
- Photograph
- Sculpture
- Solution
- A paper which follows an outline
- Shifting smoothly from one gear into another

TAKING APART

ACTIVITIES
- Break down an argument
- Draw a conclusion
- Graph
- Identify parts of a propaganda statement
- Model
- Questionnaire
- Report
- Survey
- Syllogism

ANALYSIS

VERBS
- Analyze
- Categorize
- Classify
- Compare
- Construct
- Contrast
- Differentiate
- Distinguish
- Examine
- Infer
- Investigate
- Point out
- Research
- Select
- Separate
- Subdivide
- Survey
- Take apart

SYNTHESIS

VERBS
- Add to
- Develop
- Originate
- Combine
- Formulate
- Plan
- Construct
- Hypothesize
- Produce
- Create
- Invent
- Role-Play
- Design
- Organize
- Whatif

ACTIVITIES
- Article
- Book
- Cartoon
- Game
- Invention
- Report
- Song
- Story
- A play
- Poem
- Formulate a hypothesis or question
- Set of rules, principles or standards
- Speculate on or plan an alternate course of action

PUTTING TOGETHER

EVALUATION

VERBS
- Apprise
- Assess
- Compare
- Consider
- Criticize
- Critique
- Judge
- Recommend
- Relate
- Solve
- Summarize
- Weigh

JUDGING THE OUTCOME

ACTIVITIES
- Comparison of standards
- Conclusion
- Court Trial
- Editorial
- Establishment of standards
- Evaluation
- Group Discussion
- Recommendation
- Self-Evaluation
- Survey
- Valuing

Methods of Assessment of Student Learning (based on work by Peggy Maki, AAHE)

Methods of assessment that provide **direct** evidence of learning
- Student work samples
- Collections of student work/portfolios
  - Process portfolios
    - Practice in the skill of revising
    - Autobiographical reflective papers
    - Philosophical statements
  - Program portfolios
    - Documentation/collection of important work used by group/department for evaluation purposes and funding requests
  - Presentation portfolios
    - Resumes
    - Collections of important work
    - Philosophical statements
- Capstone projects
- Laboratory experiments
- Course-embedded assessment, including locally developed tests, research papers, exams, reflective essays
- Presentations
- Panel discussions
- Performance in the fine arts and/or languages
- Senior seminars and/or projects
- Observations of student behavior
- Internal juried review of student projects
- External juried review of student projects
- Internships (internally and/or externally reviewed)
- Performance on a case study/problem
- Performance on national licensure examinations
- Standardized tests
- Pre- and post-tests
- Essay tests blind scored across units

Methods of assessment that provide **indirect** evidence of learning
- Alumni, employer, student surveys
- Focus groups
- Exit interviews with graduates
- Graduate follow-up studies
- Percentages of students who transfer
- Retention studies
- Job placement statistics

Methods of assessment that do not provide evidence of learning
- Enrollment trends

- Patterns of how courses are selected or elected by students
- Faculty to student ratios
- Percentage of students who graduate within a certain period of time
- Diversity of the student body
- Percentage of students who study abroad
- Size of the endowment
- Faculty publications (unless students are involved)

Rubrics Overview

Rubrics provide a means of capturing quantitative data from otherwise qualitative student work. By applying a rubric to a presentation, papers, portfolio items, exam questions can be tallied, compared, and used to pinpoint areas in need of improvement. A free customizable rubric generator..

Why use Rubrics?

- Help educators set goals
- Communicate expectations to students (and thus, demystify grades)
- Causes assessment of student work to be more consistent among various reviewers

Rubrics can be created in a variety of forms and levels of complexity, however, they all contain common **features** which:

- Focus on measuring a stated **objective** (performance, behavior, or quality)
- Use a **range** to rate performance
- Contain specific performance characteristics arranged in levels indicating the **degree** to which a standard has been met

Examples of Rubrics

- A Rubric Template (from the College of Education at San Diego State University)
- Writing Assessment Rubric (from Kauai Community College)
- Multimedia Rubric (from MidLink magazine)

Rubric Generator

- Rubistar - View samples/build rubrics based upon templates (free)

Course-Level Assessment
Mapping Worksheet

- **Course-Level Assessment** is a means of assuring that students are gaining elements (skill/knowledge) of the program's stated objectives, at specific points in the curriculum, as they progress through their course of study.
- A natural first-step in the process of developing course level assessments is to determine where specific objectives are taught in core program courses (mapping).
- Fill out this matrix with program courses across the top, and program objectives in the left column. Use ✓ to identify where the two are linked.
- The next step for course-level assessment is to choose specific courses to assess the attainment of specific skills/knowledge.

List Courses Across → *List Program Objectives Below ↓*									
1.									
2.									
3.									
4.									
5.									

Assessment Terminology

Accountability

The demand by a community (public officials, employers, and taxpayers) for school officials to prove that money invested in education has led to measurable learning. "Accountability testing" is an attempt to sample what students have learned, or how well teachers have taught, and/or the effectiveness of a school's principal's performance as an instructional leader. School budgets and personnel promotions, compensation, and awards may be affected. Most school districts make this kind of assessment public; it can affect policy and public perception of the effectiveness of taxpayer-supported schools and be the basis for comparison among schools.
Accountability is often viewed as an important factor in education reform. An assessment system connected to accountability can help identify the needs of schools so that resources can be equitably distributed. In this context, accountability assessment can include such indicators as equity, competency of teaching staff, physical infrastructure, curriculum, class size, instructional methods, and existence of tracking, number of higher cost students, dropout rates, and parental involvement as well as student test scores. It has been suggested that test scores analyzed in a disaggregated format can help identify instructional problems and point to potential solutions.

Achievement Test

A standardized test designed to efficiently measure the amount of knowledge and/or skill a person has acquired, usually as a result of classroom instruction. Such testing produces a statistical profile used as a measurement to evaluate student learning in comparison with a standard or norm.

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. (Source: Bennett, C.K. "Promoting teacher reflection through action research: What do teachers think?" Journal of Staff Development, 1994, 15, 34-38.)

Affective

Outcomes of education involving feelings more than understanding; like, pleasures ideals, dislike 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. An analytic scale is useful when there are several dimensions on which the piece of work will be evaluated. (See Rubric.)

Aptitude Test

A test intended to measure the test-taker's innate ability to learn, given before receiving instruction.

Assessment

The Latin root *assidere* means to sit beside. In an educational context, assessment is the process of observing learning. It is comprised by activities that describe, collect, record, score, and interpret information about a student's or one's own learning. At its most useful, assessment is an episode in the learning process; part of reflection and autobiographical understanding of progress. Traditionally, student assessments are used to determine placement, promotion, graduation, or retention.

In the context of institutional accountability, assessments are undertaken to determine the principal's performance, effectiveness of schools, etc. In the context of school reform, assessment is an essential tool for evaluating the effectiveness of changes in the teaching-learning process.

Assessment Literacy

The possession of knowledge about the basic principals of sound assessment practice, including terminology, the development and use of assessment methodologies and techniques, familiarity with standards of quality in assessment.

Assessment
Task

An illustrative task or performance opportunity that closely targets defined instructional aims, allowing students to demonstrate their progress and capabilities.

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

Student performance standards the level(s) of student competence sought to achieve 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.)

Cohort

A group whose progress is followed by means of measurements at different points in time.

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 acknowledgement of achievement.

Concept

An abstract, general notion -- a heading that characterizes a set of behaviors and beliefs.

Criterion Referenced
Tests

A test in which the results can be used to determine a student's progress toward mastery of a content area. Performance is compared to an expected level of mastery in a content area rather than to other students' scores. Such tests usually include questions based on what the student was taught and are designed to measure the student's mastery of designated objectives of an instructional program. The "criterion" is the standard of performance established as the passing score for the test. Scores have meaning in terms of what the student knows or can do, rather than how the test-taker compares to a reference or norm group. Criterion referenced tests can have norms, but comparison to a norm is not the purpose of the assessment.

Criterion referenced tests have also been used to provide information for program evaluation, especially to track the success or progress of schools and student populations that have been involved in change or that are at risk of inequity. In this case, the tests are not used to compare teachers, teams or buildings within a district but rather to give feedback on progress of groups and individuals.

Curriculum Alignment

The degree to which a curriculum's scope and sequence matches a testing program's evaluation measures, thus ensuring that teachers will use successful completion of the test as a goal of classroom instruction.

Curriculum-embedded or Learning-embedded Assessment
Assessment that occurs simultaneously with learning such as projects, portfolios and
"exhibitions." Occurs in the classroom setting, and, if properly designed, students should not be
able to tell whether they are being taught or assessed. Tasks or tests are developed from the
curriculum or instructional materials.

Cut Score

Score used to determine the minimum performance level needed to pass a competency test.

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." (emphasis
his.)

Dimension

Aspects or categories in which performance in a domain or subject area will be judged. Separate
descriptors or scoring methods may apply to each dimension of the student's performance
assessment.

Essay Test

A test that requires students to answer questions in writing. Responses can be brief or extensive. Tests for recall, ability to apply knowledge of a subject to questions about the subject, rather than ability to choose the least incorrect answer from a menu of options.

Evaluation
Both qualitative and quantitative descriptions of pupil behavior plus value judgments concerning the desirability of that behavior. Using collected information (assessments) to make informed decisions about continued instruction, programs, activities. Exemplar Model of excellence. (See Benchmark, Norm, Rubric, Standard.)

Formative Assessment

Observations which allow one to determine the degree to which students know or are able to do a given learning task, and which identifies the part of the task that the student does not know or is unable to do. Outcomes suggest future steps for teaching and learning. (See Summative Assessment.)

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.

High Stakes Testing

Any testing program whose results have important consequences for students, teachers, schools, and/or districts. Such stakes may include promotion, certification, graduation, or denial/approval of services and opportunity. High stakes testing can corrupt the evaluation process when pressure to produce rising test scores results in "teaching to the test" or making tests less complex.

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.

Item Analysis

Analyzing each item on a test to determine the proportions of students selecting each answer. Can be used to evaluate student strengths and weaknesses; may point to problems with the test's validity and to possible bias.

Journals

Students' personal records and reactions to various aspects of learning and developing ideas. A reflective process often found to consolidate and enhance learning.

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.

Measurement

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 Norm.)

Metacognition
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.

Multidimensional Assessment

Assessment that gathers information about a broad spectrum of abilities and skills (as in Howard Gardner's theory of Multiple Intelligences.

Multiple Choice Tests

A test in which students are presented with a question or an incomplete sentence or idea. The students are expected to choose the correct or best answer/completion from a menu of alternatives.

Norm

A distribution of scores obtained from a norm group. The norm is the midpoint (or median) of scores or performance of the students in that group. Fifty percent will score above and fifty percent below the norm.

Norm Group

A random group of students selected by a test developer to take a test to provide a range of scores and establish the percentiles of performance for use in establishing scoring standards.

Norm Referenced Tests

A test in which a student or a group's performance is compared to that of a norm group. The student or group scores will not fall evenly on either side of the median established by the original test takers. The results are relative to the performance of an external group and are designed to be compared with the norm group providing a performance standard. Often used to measure and compare students, schools, districts, and states on the basis of norm-established scales of achievement.

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.

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.

Outcome

An operationally defined educational goal, usually a culminating activity, product, or performance that can be measured.

Percentile

A ranking scale ranging from a low of 1 to a high of 99 with 50 as the median score. A percentile rank indicates the percentage of a reference or norm group obtaining scores equal to or less than the test-taker's score. A percentile score does not refer to the percentage of questions answered correctly, it indicates the test-taker's standing relative to the norm group standard.

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 (1992) 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.

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.

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

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.

Primary Trait Method

A type of rubric scoring constructed to assess a specific trait, skill, behavior, or format, or the evaluation of the primary impact of a learning process on a designated audience.

Process

A generalizable method of doing something, generally involving steps or operations that 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 pre-writing 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.

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.

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.

Rating Scale

A scale based on descriptive words or phrases that indicate performance levels. Qualities of a performance are described (e.g., advanced, intermediate, novice) in order to designate a level of achievement. The scale may be used with rubrics or descriptions of each level of performance.

Reliability

The measure of consistency for an assessment instrument. The instrument should yield similar results over time with similar populations in similar circumstances.

Rubric

Some of the definitions of rubric are contradictory. 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.

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

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.

Score

A rating of performance based on a scale or classification.

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.

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.

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 a 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.

Senior
Project   -
TOP-

Extensive projects planned and carried out during the senior year of high school as the culmination of the secondary school experience, senior projects require higher-level thinking skills, problem-solving, and creative thinking. They are often interdisciplinary, and may require extensive research. Projects culminate in a presentation of the project to a panel of people, usually faculty and community mentors, sometimes students, who evaluate the student's work at the end of the year.

Standardized Test

An objective test that is given and scored in a uniform manner. Standardized tests are carefully constructed and items are selected after trials for appropriateness and difficulty. Tests are issued with a manual giving complete guidelines for administration and scoring. The guidelines attempt to eliminate extraneous interference that might influence test results. Scores are often are often norm-referenced.

Standards

Agreed upon values used to measure the quality of student performance, instructional methods, curriculum, etc.

Subjective Test

A test in which the impression or opinion of the assessor determines the score or evaluation of performance. A test in which the answers cannot be known or prescribed in advance.

Summative Assessment

Evaluation at the conclusion of a unit or units of instruction or an activity or plan to determine or judge student skills and knowledge or effectiveness of a plan or activity. Outcomes are the culmination of a teaching/learning process for a unit, subject, or year's study. (See Formative Assessment.)

Validity

The test measures the desired performance and appropriate inferences can be drawn from the results. The assessment accurately reflects the learning it was designed to measure.