***Teaching and Assessment Glossary***

***Active Learning:*** an approach in which students are participating in learning beyond passively absorbing knowledge such as in a lecture session. Actively learning students solve problems, apply knowledge, work with other students, and engage the material to construct their own understanding and use of the information. Examples of active learning methods include those methods where deeper thinking and analysis are the responsibility of the student, and the faculty member acts as a coach or facilitator to achieve specified outcomes. Examples of active learning include inquiry-based learning, case-study methods, project development, modeling, collaborative learning, problem-based learning, brainstorming, and simulations.

***Affective or Attitudinal Outcomes:*** outcomes related to the development of values, attitudes and behaviors.

***Alignment:*** the process of analyzing how explicit criteria line up or build upon one another within a particular learning pathway. When dealing with outcomes and assessment, it is important to determine that course outcomes align or match up with program outcomes; that institutional outcomes align with the college mission and vision. In student services, alignment of services includes things like aligning financial aid deadlines and instructional calendars.

***Analytic Scoring*:** *e*valuating student work across multiple dimensions of performance rather than from an overall impression (holistic scoring). In analytic scoring, individual scores for each dimension are scored and reported. For example, analytic scoring of a history essay might include scores of the following dimensions: use of prior knowledge, application of principles, use of original source material to support a point of view, and composition. An overall impression of quality may be included in analytic scoring.

***Artifact:*** a student-produced product or performance used as evidence for assessment. An artifact in student services might be a realistic and achievable student educational plan (SEP).

***Assessment:*** any methods used by a faculty member, department, program or institution to generate and collect data for evaluation of processes, courses, and program with the ultimate purpose of evaluating overall educational quality and improving student learning.

***Assessment Cycle:*** the process, also called closing the loop, which is the completion of SLO creation, data collection, analysis, and reevaluation. It is figuratively represented on page 33.

***Assessment of Learning:*** any process by which methods are used to generate and collect data for evaluation of courses and programs to improve educational quality and student learning.

***Authentic Assessment:*** assessment which simulates a real world experience by evaluating the student’s ability to apply critical thinking and knowledge or to perform tasks that may approximate those found in the work place or other venues outside of the classroom setting. In contrast, traditional assessment sometimes relies on indirect or proxy items such as multiple choice questions focusing on content or facts.

***Bloom’s Taxonomy:*** one of several classification methodologies used to describe increasing complexity or intellectual sophistication:

1. **Knowledge:** recalling or remembering information without necessarily understanding it. Includes behaviors such as describing, listing, identifying, and labeling.
2. **Comprehension:** understanding learned material and includes behaviors such as explaining, discussing, and interpreting.
3. **Application:** the ability to put ideas and concepts to work in solving problems. It includes behaviors such as demonstrating, showing, and making use of information.
4. **Analysis:** breaking down information into its component parts to see interrelationships and ideas. Related behaviors include differentiating, comparing, and categorizing.
5. **Synthesis:** the ability to put parts together to form something original. It involves using creativity to compose or design something new.
6. **Evaluation:** judging the value of evidence based on definite criteria. Behaviors related to evaluation include: concluding, criticizing, prioritizing, and recommending. (Bloom, 1956)

***Classroom assessment techniques (CATs):*** “simple tools for collecting data on student learning in order to improve it” (Angelo & Cross, 1993, p. 26). CATs are short, flexible, classroom techniques that provide rapid, informative feedback to improve classroom dynamics by monitoring learning, from the student’s perspective, throughout the semester. Data from CATs are evaluated and used to facilitate continuous modifications and improvement in the classroom.

***Classroom-based assessment:***the formative and summative evaluation of student learning within a classroom, in contrast to institutional assessment that looks across courses and classrooms at student populations.

***Closing the Loop:*** the use of assessment results to improve student learning through dialogue, informed by the results of learning outcome assessment. It is part of the continuous cycle of collecting assessment results, evaluating them, using the evaluations to identify actions that will improve student learning, implementing those actions, and then cycling back to collecting assessment results, etc.

***Competencies:*** see Student Learning Outcomes.

***Continuous Improvement:*** reflects an on-going, cyclical process to identify evidence and implement incremental changes to improve student learning.

***Course Assessment:*** evaluates the curriculum as designed, taught, and learned. It involves the collection of data aimed at measuring successful learning in the individual course and improving instruction with the ultimate goal towards improving learning and pedagogical practice.

***Criterion-based assessments:*** evaluate or score student learning or performance based on explicit criteria developed by student services or instruction which measures proficiency at a specific point in time.

***Culture of evidence:*** an institutional culture that supports and integrates systemic and data driven research, analysis, and evaluation to shape decision-making.

***Direct assessment techniques and direct data:*** provide evidence of student knowledge, skills, or attitudes for the specific domain in question and actually measuring student learning, not perceptions of learning or secondary evidence of learning, such as a degree or certificate. Direct assessment techniques include standardized and locally developed tests, embedded assessment, student portfolios, and oral exams (competence interviews). For instance, a math test directly measures a student’s proficiency in math. In contrast, an employer’s report about student abilities in math or a report on the number of math degrees awarded would be indirect data.

***Embedded assessment:*** occurs within the regular class or curricular activity. Class assignments linked to student learning outcomes through primary trait analysis serve as grading and assessment instruments (i.e., common test questions, CATs, projects or writing assignments). Specific questions can be embedded on exams in classes across courses, departments, programs, or the institution. Embedded assessment can provide formative information for pedagogical improvement and student learning needs.

***Evidence:*** artifacts or objects produced that demonstrate and support conclusions, including data, portfolios showing growth, as opposed to intuition, belief, or anecdotes.

***Evidence of program and institutional performance:*** includes quantitative or qualitative, direct or indirect data that provide information concerning the extent to which an institution meets the goals it has established and publicized to its stakeholders.

***Formative assessment:*** a diagnostic tool implemented during the instructional process that generates useful feedback for student development and improvement. The purpose is to provide an opportunity to perform and receive guidance (such as in class assignments, quizzes, discussion, lab activities, etc.) that will improve or shape a final performance. This stands in contrast to summative assessment where the final result is a verdict and the participant may never receive feedback for improvement such as on a standardized test or licensing exam or a final exam.

***Grades:*** faculty evaluation of a student’s performance in a *class* as a whole. Grades represent an overall assessment of student class work, which sometimes involves factors unrelated to specific outcomes or student knowledge, values or abilities. For this reason equating grades to SLO assessment must be done carefully.

***Holistic Scoring:*** a scoring process in which a score is based on an overall assessment of a finished product that is compared to an agreed-upon standard for that task. See analytic scoring for comparison.

***Homegrown or Local assessment:*** developed and validated by a local college for a specific purpose, course, or function and is usually criterion-referenced to promote validity. This is in contrast to standardized state or nationally developed assessment. In student services homegrown student satisfaction surveys can be used to gain local evidence, in contrast to commercially developed surveys which provide national comparability.

***Indirect methods of assessment and indirect data:*** sometimes called secondary data because they indirectly measure student performance, such as interviews, surveys, focus groups, or reflective essays. For instance, certificate or degree completion data provide indirect evidence of student learning but do not directly indicate what a student actually learned.

***Information competency:***  the ability to access, analyze, and determine the validity of information on a given topic, including the use of information technologies to access information.

***Institutional Learning Outcomes (ILOs):*** the knowledge, skills, and abilities a student is expected to leave an institution with as a result of a student’s total experience.

***Likert scale*:** a rating scale which assigns a numerical value to responses in order to quantify subjective data. The responses are usually along a continuum such as responses of strongly disagree, disagree, agree, or strongly agree and are assigned values such as 1 to 4.

***Metacognition:*** the act of thinking about one’s own thinking and regulating one’s own learning. It involves critical analysis of how decisions are made and vital material is consciously learned and acted upon.

***Norm-referenced assessment:*** an assessment in which an individual’s performance is compared to another individual. Individuals are commonly ranked to determine a median or average. This technique addresses overall mastery to an expected level of competency, but provides little detail about specific skills.

***Objectives:*** small steps that lead toward a goal. Objectives are usually more numerous and create a framework for achieving the overarching student learning outcomes.

***Outcomes:*** the evidence that students have achieved the desire learning. Also see Student Learning Outcomes.

***Pedagogy:*** the art and science of how something is taught and how students learn it. Pedagogy includes how the teaching occurs, the approach to teaching and learning, how content is delivered, and what the students learn as a result of the process. In some cases pedagogy is applied to children and andragogy to adults; but pedagogy is commonly used in reference to any aspect of teaching and learning in any classroom.

***Portfolio:*** A representative collection of a student’s work, including some evidence that the student has evaluated the quality of his or her own work.

***Primary Trait Analysis (PTA***): the process of identifying major characteristics that are expected in student work. After the primary traits are identified, specific criteria with performance standards are defined for each trait. This process is often used in the development of rubrics. PTA is a way to evaluate and provide reliable feedback on important components of student work thereby providing more information than a single, holistic grade.

***Program:*** a cohesive set of courses that result in a certificate or degree. A program may also refer to student service programs and administrative units.

**Program Goals:** statements identifying learning parameters, content and relationships between content areas – what students should ***learn, understand****, or* ***appreciate*** as a result of their studies by the time they finish a program or a major. Goals may be incorporated in the mission statement. Examples of Goals: Christian Understanding; Critical Thinking; Competence in Written Communication; Competence in Oral Communication; Global Awareness; Team Work and Collaboration; Ethics, etc.

***Program Learning Outcomes (PLOs):*** statements that represent the outcomes for a student at the culmination of their program. Program Outcomes often reference specific skills that a student will be able to perform in their chosen majors, as well as incorporate the tenants of general education, integration of faith and learning, and lifelong learning.

***Program Review:*** A process of systematic evaluation of a program, using multiple streams of evidence collection (from enrollment to instruction, to placement data) to assess the program’s effectiveness and potential areas for improvement.

***Qualitative data:*** descriptive information, such as narratives or portfolios. These data are often collected using open-ended questions, feedback surveys, or summary reports, and may be difficult to compare, reproduce, and generalize. Qualitative data provide depth and can be time and labor intensive. Nonetheless, qualitative data often pinpoint areas for interventions and potential solutions which are not evident in quantitative data.

***Quantitative data:*** numerical or statistical values. These data use actual numbers (scores, rates, etc) to express quantities of a variable. Qualitative data, such as opinions, can be displayed as numerical data by using Likert scaled responses which assign a numerical value to each response (e.g., 4 = strongly agree to 1 = strongly disagree). These data are easy to store and manage providing a breadth of information. Quantitative data can be generalized and reproduced, but must be carefully constructed to be valid.

***Reliability:*** the reproducibility of results over time or a measure of the consistency when an assessment tool is used multiple times. In other words, if the same person took the test five times, the **scores** should be **similar**. This refers not only to reproducible results from the same participant, but also to repeated scoring by the same or multiple evaluators. While the student learning outcomes process should be reliable, it does not suggest statistical reliability analysis for every item and aspect of classroom and program assessment, but rather indicates that assessments should be a consistent tool for testing the student’s knowledge, skills or ability.

***Rubric:*** a set of criteria used to determine scoring for an assignment, performance, or product. Rubrics may be holistic, not based upon strict numerical values, and provide general guidance. Other rubrics are analytical, assigning specific scoring point values for each criterion often as a matrix of primary traits on one axis and rating scales of performance on the other axis. A rubric can improve the consistency and accuracy of assessments conducted across multiple settings.

***Sampling:*** a research method that selects representative units such as groups of students from a specific population of students being studied, so that by examining the sample, the results can be generalized to the population from which they were selected when everyone in the population has an equal chance of being selected (i.e. random). Sampling is especially important when dealing with student service data.

***Standard:*** refers to the level at which students are expected to achieve the Student Learning Outcomes. Also sometimes used as a synonym to outcomes.

***Standardized assessment:*** assessments which are created, tested, validated, and usually sold by an educational testing company (e.g., GRE’s, SAT, ACT, ACCUPLACER) for broad public usage and data comparison, usually scored normatively. There are numerous standardized assessment instruments available for student service programs which provide national comparisons.

***Student Learning Outcomes (SLO).*** Student learning outcomes (SLOs) are the specific observable or measurable results that are expected subsequent to a learning experience. These outcomes may involve knowledge (cognitive), skills (behavioral), or attitudes (affective) that provide evidence that learning has occurred as a result of a specified course, program activity, or process. An SLO refers to an overarching outcome for a course, program, degree or certificate, or student services area (such as the library). The

***Summative assessment:*** a final determination of knowledge, skills, and abilities. This could be exemplified by exit or licensing exams, senior recitals, capstone projects or any final evaluation which is not created to provide feedback for improvement, but is used for final judgments.

***Validity:*** an indication that an assessment method accurately measures what it is designed to measure with limited effect from extraneous data or variables. To some extent this must also relate to the integrity of inferences made from the data.

***Content Validity:*** indicates that the assessment is consistent with the outcome and measures the content we have set out to measure. For instance, you go to take your driver’s license exam, the test does not have questions about how to make sushi.

***Variable:*** a discrete factor that affects an outcome.

Glossary adapted from:
*San Joaquin Valley College Student Learning Outcomes Toolkit*

* Allen, Mary. *Assessing Academic Programs in Higher Education.* (2004)*.* Boston, MA: Anker Publishing Company