An Assessment Framework

For the Community College

Measuring Student Learning and Achievement as a Means of Demonstrating Institutional Effectiveness

Development of this white paper sponsored and facilitated by:

Preface

This white paper was developed through the collaboration of a dedicated advisory team of community college practitioners and assessment industry experts who worked diligently through meetings, email correspondence, and conference calls to develop the philosophy, content, and structure of the Assessment Framework for the Community College. Questionmark Corporation committed resources to the project to draft the paper, facilitate meetings of the advisory team, and produce the final copy. The paper is labeled version 1.0, indicating that the framework will continue to evolve as educators apply its concepts and principles and identify ways in which to improve and expand its focus.

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Goals of the Paper

This goal of this paper is to establish an Assessment Framework for the Community College and to contextualize that framework within the concept of the Learning College. A major premise of the paper is that the assessment of student learning can generate data to support continuous improvement efforts necessary for documenting institutional effectiveness.

It must be noted that institutional effectiveness may be measured in a number of areas, such as graduation, retention, job placement, number and effectiveness of student services, management and administrative structure, physical infrastructure; while measurement in these areas is critical, it is intentionally not the focus of this paper. Rather, this paper will focus on the measurement of student learning and development throughout learning processes that take place in both the physical and virtual classroom.

Students attend community colleges for a variety of reasons—to earn a degree, earn a certificate, obtain transfer credits, develop specific skills through one or two courses—yet at the heart of each of these reasons is the desire to improve skills, increase knowledge, or change attitudes. Skills, knowledge, and attitudes may be affected through instructional programs inside physical and virtual classrooms or through student service activities outside of the classroom setting. Regardless of where the learning is taking place, measuring learning will help an institution gauge whether or not students are achieving their educational goals. If learning can be documented at the student level, then it is possible to aggregate assessment data in ways to provide information at the course, program, division, and institutional levels. In this way, assessment data gathered at the student level may be used to promote continuous improvement efforts, which over time will yield documentation for institutional effectiveness.

In some college settings, where the student population is constantly changing, assessment data is not as useful at the student level as it is at the aggregate level. In these settings, aggregate data can be used to benefit the curriculum and faculty development opportunities important to continuous improvement initiatives.

While assessment data provides beneficial information to instructors and administrators, students also benefit directly and indirectly from assessment results. Through the appropriate use of assessments, students receive direct feedback on their educational progress, helping them take ownership of and understand critical next steps in their educational plan. Students are also the beneficiaries of college, program, and course-level continuous improvement efforts supported and sustained through the systematic collection and analysis of assessment data.

In support of the measurement of student learning, the assessment framework will provide an assessment vocabulary, implementation processes, and methods for

data generation and reporting. The framework does not intend to prescribe one assessment methodology for measuring student learning; instead, the framework should be viewed as a set of building blocks and best practices that can be assembled, modified, or shaped to a particular institution's integrated approach to learning, teaching, and assessment. Similarly, the vocabulary is intended to provide a baseline of terms. Colleges should use the definitions to establish a common understanding amongst stakeholders so that, if necessary, college-specific definitions may be developed. The goal of the Assessment Framework is to provide a foundation of terms, processes, and procedures so that all stakeholders involved with the development or consumption of assessment results may operate from a common understanding.

Why an Assessment Framework for the Community College?

Community colleges are increasingly required to document institutional effectiveness to a broad group of stakeholders through assessment data. College accreditation agencies refer to a variety of assessment requirements, but the following statement excerpted from the Southern Association of Colleges and Schools' *Principles of Accreditation: Foundations for Quality Enhancement* (section 3.3) highlights the importance of documenting the effectiveness of educational programs through assessment data:

"The institution identifies expected outcomes for its educational programs and its administrative and educational support services; assesses whether it achieves these outcomes; and provides evidences of improvement based on analysis of those results."

While the need for assessment is clear, an implementation gap often exists between the desired end result and how one gets there. This gap prevents colleges from developing an effective assessment plan that will yield meaningful data at the student, course, program, and college levels. The breadth and width of the gap varies from institution to institution. However, the Assessment Framework intends to begin filling the assessment information gap by defining an assessment vocabulary, outlining a practical assessment implementation process, and establishing a methodology for how to use assessment data in an integrated fashion across a college campus.

But before it makes sense to talk about assessment, much less an assessment framework for the community college, the context in which assessment plays a role needs to be defined. Assessment may be thought of as a tool kit, a varied and marvelous set of devices and instruments, each honed and calibrated to tackle a very specific problem. This set of tools on its own may be impressive, but without an understanding of how the tools can be applied, it cannot be used to its potential. In addition, the tool kit without context or purpose doesn't offer much help. It must be contextualized within the broader learning outcomes of a college before it can be applied successfully.

At first glance, the answer to the context question seems simple. The context is education, and assessments at the college level are applied for a variety of purposes: to ensure students are ready for college or their next course; to certify students for a profession or trade; to ensure courses, programs and departments meet their stated objectives; and to ensure that the institution provides a first class learning environment. But while these uses of assessment are valid, the educational context in which they are applied is changing, and the entry-exit-certification and accreditation models of assessment need to evolve, as well.

Terry O'Banion in a monograph entitled *Launching a Learning-Centered College* speaks about the "learning revolution" that took place in the last decade of the twentieth century, where colleges refocused mission and value statements on the learning process and transformed their institutional structures into learning-centered enterprises. Learning is the focus of the educational process. It focuses on the student and what the student needs to achieve and has achieved. It puts the student in the center and acts to realign all other college support systems—teaching, research, and support services—around the goal of helping students achieve their learning outcomes.

O'Banion named this revolutionized college the "Learning College" and has developed for it six guiding principles (p. 5):

1) The Learning College creates substantive change in individual learners.
2) The Learning College engages learners in the learning process as full partners who must assume primary responsibility for their own choices.
3) The Learning College creates and offers as many options for learning as possible.
4) The Learning College assists learners to form and participate in collaborative learning activities.
5) The Learning College defines the roles of learning facilitators in response to the needs of the learners.
6) The Learning College and its learning facilitators succeed only when improved and expanded learning can be documented for learners.

(Several people, including O'Banion, have mentioned, written about, or developed a seventh principle. To avoid confusion, this paper deals with only the original six guiding principles.)

When considering assessment within the context of the Learning College, the uses for assessment grow quickly beyond the entry-exit-certification model. The six principles are key, and different kinds of assessments may be used to provide evidence of progress towards and adherence to them. For example, it's possible to define an array of student learning assessment opportunities that can support and sustain each of the six principles for the Learning College, as follows:

No.	Principle	Assessment Opportunities
1	The Learning College creates substantive change in individual learners.	Tests, exams, and performance assessment tasks can be used to show that students have mastered learning outcomes toward a degree or certification program or toward a personal learning goal, thus providing evidence of substantive change in individual learners.
2	The Learning College engages learners in the learning process as full partners who must assume primary responsibility for their own choices.	Quizzes and hands-on learning activities can be used to provide meaningful feedback (formative assessment) to students during learning events so that students understand their learning gaps and can take responsibility for continued study and work to master the learning outcomes.
3	The Learning College creates and offers as many options for learning as possible.	With computer and web technologies, it's possible to deliver instruction to students in multiple modes, and assessments can similarly be delivered in multiple modes to provide meaningful feedback on learning outcomes. These multiple modes are also important for meeting the different learning styles of the students.
4	The Learning College assists learners to form and participate in collaborative learning activities.	Quizzes or opinion polls may be used in collaborative learning settings to poll the learners on their opinions or understanding of a topic. Poll responses can then be used to generate interactive discussions between learners. Peer-to-peer assessments might also be used in collaborative learning activities to assess participation, etc.
5.	The Learning College defines the roles of learning facilitators in response to the needs of the learners.	Evaluations of learning facilitators may be performed to provide feedback to the facilitators on the effectiveness of the instructional content and delivery that would allow them to modify or update the course in response to student needs. Similarly, in-class quizzes can be used to determine student understanding of a learning objective. If students exhibit misconceptions, the learning facilitator can adjust the course content quickly to better meet the learning needs of the students.
6	The Learning College and its learning facilitators succeed only when improved and expanded learning can be documented for learners.	Assessments can be used to document for learners and stakeholders that learning has in fact taken place. Assessments and documentation through assessment strategies such as portfolios

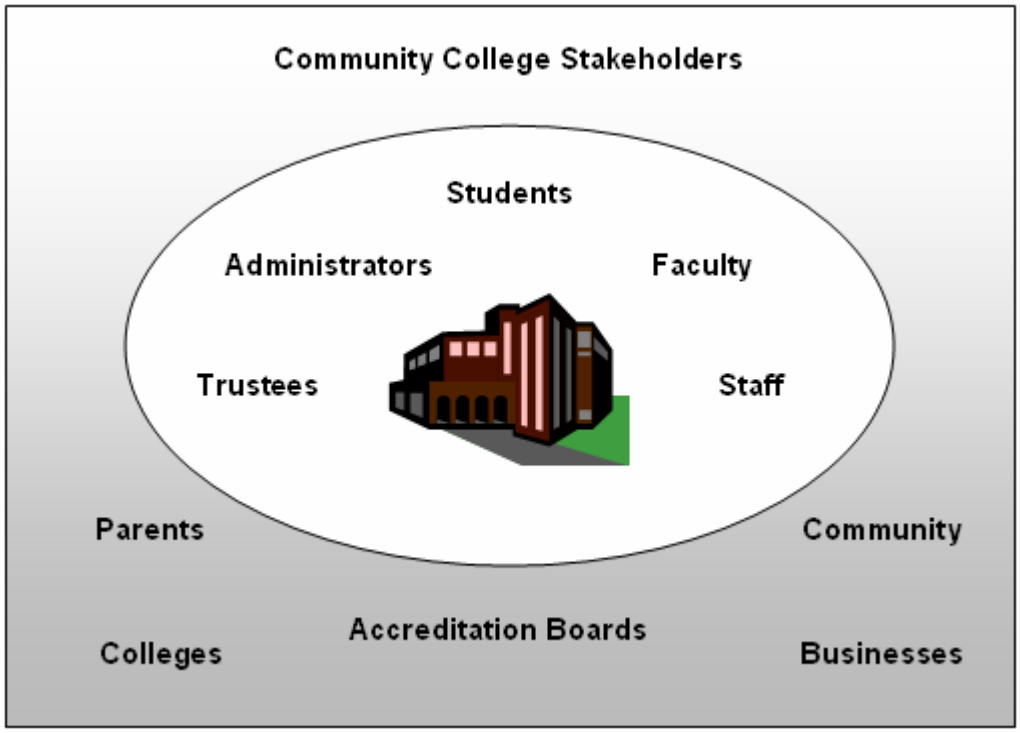
No.	Principle	Assessment Opportunities
		can provide data that can be used as evidence of learning, as well as to document learning outcomes for potential employers.

All of the assessment opportunities noted above are important for validating the Learning College, and all illustrate the range of assessment results that can be used as feedback to students and faculty in their efforts toward personal and institutional improvement. All the forms of assessment illustrated can be used to provide evidence needed for Principle 6: documenting for learners that learning is improved and expanded. This principle is a reflection of the ever-growing need for college administrators to prove to stakeholders that learning is occurring at their institutions. College administrators and accreditation boards have long understood that assessment is essential in providing that evidence. However, returning to the tool kit metaphor, college faculty and administrators seem to be eying the assessment tools in the corner and saying, "Those are excellent tools; I wish we knew of better ways to integrate and use them."

Continuous improvement efforts take place at the individual student level, where students use assessment data to understand academic and developmental areas needing improvement, and extend out to the much larger-scale institutional level, where baseline and trend data can be used to identify issues, root causes of issues, and pave the way for establishing benchmarks and measuring progress toward benchmarks. Regardless of the size of the continuous improvement effort, assessment data provides concrete evidence about a current state and helps students, faculty, and program administrators tailor an appropriate improvement plan. The purpose of defining an Assessment Framework for the Community College, therefore, is to provide a framework of use—instructions for when and how to use the specific tools in the kit for a given purpose. The instructions will include a vocabulary of terms, a process for implementing an assessment plan, and guidance on how to assemble assessment data into documentation of learners' competencies and institutional effectiveness. In other words, instructions on how to use the assessment toolkit to prove to the learner (and other stakeholders) that learning is expanded and improved.

Views of the Stakeholders

An Assessment Framework is important for the range of stakeholders with interests in the performance of a college. The diagram below illustrates the variety of stakeholders associated with a community college.



This image illustrates the number of stakeholders with an interest in the performance of a college. All stakeholders have a need and right to receive and understand effectiveness indicators. Given the range of stakeholders, the institutional performance data need to be packaged and presented in a clear, concise, and precise fashion.

One of the primary goals for the Assessment Framework is to establish a vocabulary of assessment terms so that all stakeholders may easily understand the discussion and presentation of learning effectiveness data. In addition, the Assessment Framework aims to outline a process for measuring student learning that all stakeholders will be able to understand. Clearness of language and transparency of process are critical to the success of any organization and perhaps even more important in a college setting where stakeholder interests are so varied and diverse.

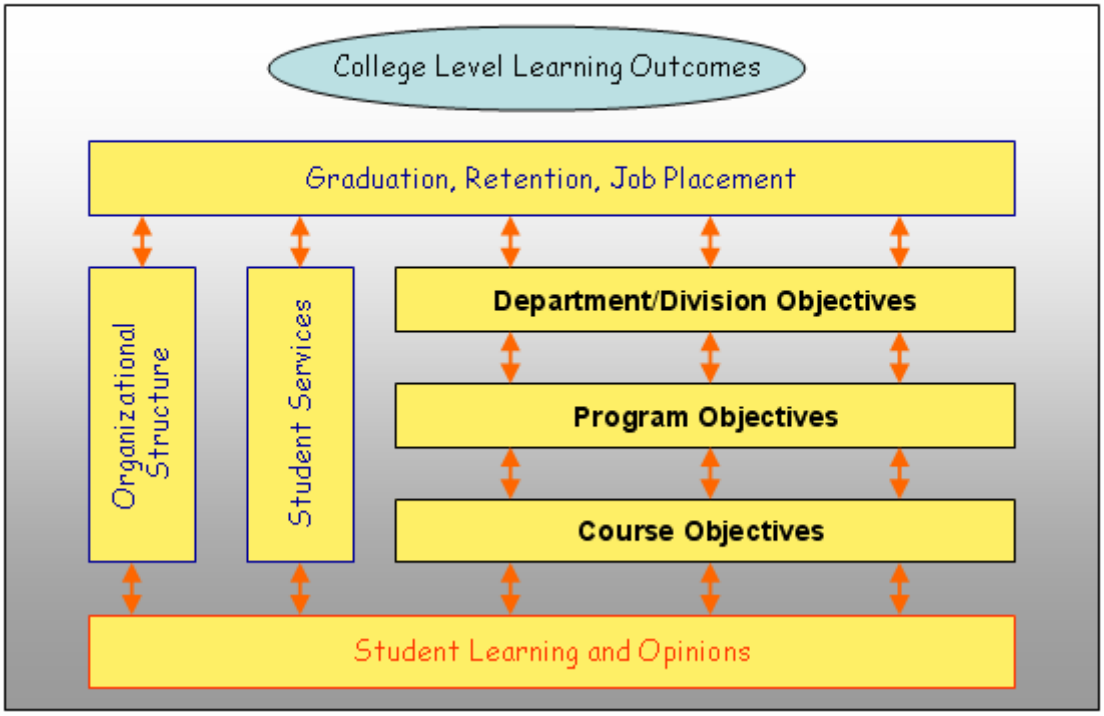
Focus on Student Learning as Evidence of Institutional Effectiveness

In the endeavor to document institutional effectiveness for accreditation boards and all institutional and community stakeholders, a number of effectiveness indicators come into play. Traditional measures of institutional effectiveness include rates of graduation, retention, and job placement. College accreditation boards have expanded the view of institutional effectiveness to include indicators of the quality, value, and use of student services, strength of the administrative structure, and

robustness of an institution's physical infrastructure. Many would argue that these latter kinds of indicators are necessary foundational components that contribute to higher rates of graduation, retention, and job placement.

When the idea of institutional effectiveness is contextualized within the college focused on learning as described by O'Banion's principles of the Learning College, an even more fundamental component is added to the formula: student learning and student opinions (e.g., satisfaction). Students are the primary and central focus of the Learning College, and the strength of their opinions and quality of learning are essential for any college to be measurably successful. The diagram below illustrates the fundamental nature of the student within the equation of institutional effectiveness.

Indicators of Institutional Effectiveness

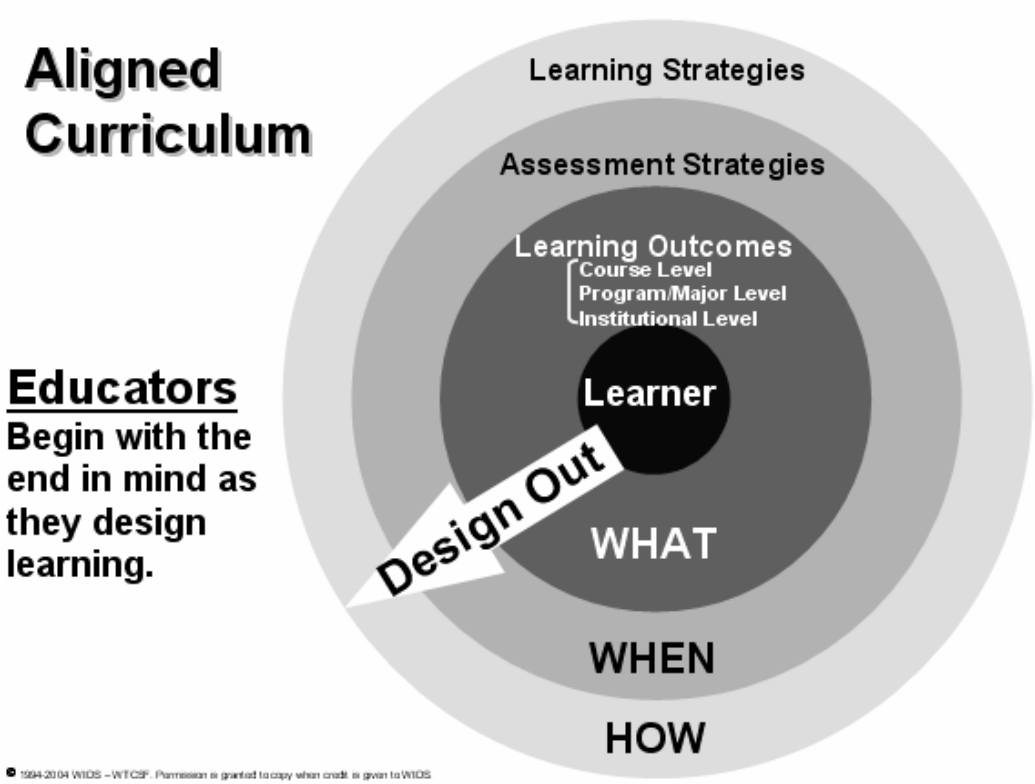


In this diagram, it's clear that what happens at the student level is fundamental to the success of all other levels of a community college. The diagram illustrates an environment where college-level learning outcomes infuse all campus activities, both within and outside the physical and virtual classroom. The goal is to develop student services and curricula around the learning outcomes defined by the college. It is important to note that the learning outcomes will be related to academic goals as well as personal development goals such as leadership, social growth, and communication skills.

The diagram illustrates that student opinions affect the nature and composition of a college's structure and student services offerings. If student opinions are negative, a ripple effect occurs: either the college manages change to provide better structures and services for the student or the student chooses to leave the institution or dissuade other students from attending the college.

Indices of student learning are even more powerful than student opinions. By measuring the amount and quality of student learning toward defined outcomes, it is possible to evaluate the quality of a curriculum. If an educational division is showing that its student learning is expanded and improved, then higher rates of retention, graduation, and job placement are likely to occur. The feedback process is critical. If aggregate measures indicate that student learning is not occurring, then appropriate actions need to be taken at the curriculum or departmental level. The nature of student learning and opinions will guide administrators and faculty in determining whether adjustments need to be made to learning outcomes, learning theories applied in the physical or virtual classroom, teaching styles, delivery methodologies, measurement practices, or the course content.

Another way to focus on student learning is to illustrate the fact that the learner is at the core of all curricular, assessment, and outcomes-definition activity. The diagram below submitted by the Worldwide Instructional Design System (WIDS) provides a graphical view of this concept:



This diagram graphically depicts the learner as the target around which learning outcomes, assessment strategies, and learning strategies are developed. The point is to design all these components with the student in mind.

Similarly, the goal for the Assessment Framework is to focus on the student and provide best practice information on how to assess student achievement of college-level learning outcomes. By documenting progress toward and achievement of learning outcomes through assessment evidence, a large step will be taken towards documenting institutional effectiveness. In other words, colleges are designed to help students learn. If the learning process is sound, and student learning can be documented and proven, a strong argument can be made that the educational institution is effective.

Defining the Vocabulary

As evidenced by the terms already presented in this paper, a number of words specific to assessment exist and are used interchangeably by community college stakeholders. The problem though is that assessment terminology has various meanings, especially to the different groups of stakeholders. To parents, an exam may be the set of questions given at the end of a unit with the goal of informing the student and teacher about whether a review exercise is needed, while to an academic dean, an exam may be a high-stakes certification test. To prevent confusion and to promote a common understanding between and amongst stakeholders of the community college, it's important to clearly define assessment terms.

Without a common understanding of assessment terms, it becomes very difficult to discuss assessment implementation at a college. Many colleges charter an assessment task force to map out assessment strategies at the college level. Consider how much time would be saved if all the members of the task force used the same vocabulary starting at the very first meeting. Using a common vocabulary will allow the task force to move more quickly and efficiently without spending a great deal of time defining terms or acting on unconfirmed or inaccurate assumptions.

The main point in providing the vocabulary is to provide a set of common terms. Colleges may opt to define their own assessment terminology, a language that fits more intuitively within the local structure of the college. However, the process of defining a college-specific set of terms will be greatly facilitated by starting with the common understanding of terms defined in this paper.

Assessment

In 1995 the Assessment Forum of the American Association of Higher Education led by Thomas A. Angelo went through an iterative process to develop a definition of assessment. The end-result of that definition process is as follows:

Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate criteria and high 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. When it is embedded effectively within larger institutional systems, assessment can help us focus our collective attention, examine our assumptions, and create a shared academic culture dedicated to assuring and improving the quality of higher education (Thomas A. Angelo, *AAHE Bulletin,* November 1995, p.7).

This definition fits nicely within the context of O'Banion's Learning College as well as the student-centered focus of the Assessment Framework. It also speaks to the idea of making assessment a transparent, clearly documented process so that the needs of disparate stakeholders may be met. The Questionmark white paper titled *Assessments through the Learning Process* also speaks to the embedded nature of assessments within learning environments and institutions.

Purpose of Assessment

The purpose of assessment is to support data-driven decision-making and measure knowledge, skills, or abilities against defined competencies or learning outcomes. Assessments associated with the learning process are often classified as diagnostic, formative, needs, reactive, or summative.

Diagnostic assessments are primarily used to identify needs and to determine prior knowledge of individual participants. Diagnostic assessments usually occur prior to a learning experience. These are often known as "placement tests" or "placement exams."

Formative assessment has the primary objective of providing prescriptive feedback to a student to inform next steps in the instructional process. Educators tend to use quizzes in this fashion.

Needs assessment is used to determine the knowledge, skills, abilities and attitudes of a group to assist with gap analysis and courseware development. Gap analysis determines the variance between what a student knows and what they are required to know. This too is a diagnostic tool, but it is used in the context of performance improvement in a workplace.

Reaction assessment takes place after a course or learning experience to gather the students' opinions. Reaction assessments are often known as "smile sheets," "level 1 surveys" or "course evaluations."

Summative assessment is where the primary purpose is to give a quantitative grading and make a judgment about the participant's

achievement. Summative assessments typically take place at the end of a course of instruction where the goal is to provide overall information on the amount and quality of student learning. These are often known as "mid-term exams" or "final exams."

Types of Assessments

There are a number of types of assessments, each of which is appropriate for different assessment purposes or goals. When deciding the type of assessment to use, first consider the purpose of the assessment. Is it for diagnostic or placement purposes? Is it to provide feedback throughout the learning process? Is it to determine at the end of a course of study if a student has mastered skills defined in a set of standards? Is it to determine the gap between what students know and what they need to know? Is it to determine student opinions? Depending on the purpose of the assessment, different types of assessments may be utilized.

In the introductory section describing the assessment opportunities in support of the six principles of the Learning College, a number of assessment types were mentioned. The following table lists the types of assessment, their definitions, and their related purposes.

Type of Assessment	**Definition**	**Purpose**	**Examples**
Performance	A stimulus or prompt designed to elicit a performance from a student to demonstrate knowledge, skills, and abilities related to a specific problem-solving activity in a specific context.	Needs Diagnostic Formative Summative	1. Use appropriate tools in an automotive skills class to fix a mechanical problem with an engine. 2. Class assignment. 3. Tutorial. 4. Interviews. 5. Peer reviews.
Portfolio	Systematic collections of work products that are typically collected over time. May contain assessment scores, work artifacts, student journals or notes.	Formative Summative	1. Course portfolio. 2. College portfolio. 3. Student portfolio. 4. Journals.
Production	A stimulus or prompt designed to have a student produce a work artifact to demonstrate knowledge, skills, and abilities related to a specific problem-solving activity in a specific context.	Needs Diagnostic Formative Summative	1. Produce an Excel spreadsheet in an accounting class to demonstrate mastery of accounting practices. 2. Class assignment. 3. Tutorial. 4. Essay test. 5. Speaking test.
Survey	A set of questions designed to elicit student opinions about the learning environment	Reaction Needs	1. Course or instructor evaluation. 2. Survey of student services. 3. Survey of student satisfaction. 4. Focus groups.
Quiz	A set of questions used to measure a student's knowledge or skills for the	Formative	1. Informal, in-course set of questions to determine if

Type of Assessment	Definition	Purpose	Examples
	purpose of providing feedback to inform the student and the teacher of the current level of knowledge or skill.		students are tracking with the content or if misconceptions are developing. Useful for determining next events in learning process. 2. Class assignment. 3. Tutorial. 4. Case study.
Test	A method for determining student learning at defined intervals before, within or after a course of study to determine if students are ready for the next stage of instruction.	Needs Diagnostic Summative	1. Placement test or pretest before a course starts. 2. Mid-term. 3. Final test in a course. 4. Case study.
Exam	A method for determining whether student learning meets criteria established by an external source.	Summative	1. Certification exam where a cut-score must be achieved before the student may be certified or licensed in a field. Job placement exam, where a cut-score must be obtained before a job will be offered.

Types of Assessment Activities

Objective questions. Assessment activities may take the form of objectively scored questions, such as multiple-choice, true-false, yes/no, and Likert Scale questions. These types of questions typically have only one correct answer which has been predetermined prior to the assessment activity. Student responses are scored against the predetermined answer key. Objective questions may appear on surveys, quizzes, tests, and exams.

Subjective questions. Otherwise known as performance-based activities, subjective questions are those activities that require the student to perform a task, e.g., write an essay, give a speech, create an Excel spreadsheet with calculations, or conduct a science experiment. These types of activities typically do not have one correct response. Rather, a scoring rubric is established that outlines the criteria for scoring the task. The student performance will be rated against the scoring rubric. Subjective questions may be included in quizzes, tests, and exams. In some cases, an entire assessment may be the administration of a single performance-assessment task.

Types of Assessment Data

Quantitative data exhibit variance in amount rather than kind. Numeric scores are considered quantitative when the numbers connote different amounts of learning or achievement. Often quantitative data are derived

from objective scoring procedures, where during the test development process either a correct response is definitively assigned to a question or performance is documented at a variety of score points. Scoring occurs by either checking student responses against the key or against the scale of performance indicators. Examples of quantitative assessments are multiple-choice questions that can be scored by computer program or essay questions that are scored against a predefined scoring rubric.

Qualitative data exhibit differences in quality rather than amount. Qualitative data are often generated during subjective evaluation processes by subject-matter-experts. Learning facilitators knowledgeable in the subject area observe student performance in real-world situations, make judgments and inferences about levels of student learning, and express the evaluations in holistic narratives. Often, outcomes of qualitative assessments are written narratives provided by the learning facilitator about student performance. Examples of qualitative assessments may be student observations or interviews. Scoring guides are often used to define the rating scale and criteria for evaluating student performance. Scoring guides are important to document what is expected in a performance and the specific attributes or behavior found at each score point.

Assessment Score Interpretations

Norm-referenced interpretations are based on a comparison of a student's performance to the performance of other people in a specified reference population. Relative standing, or ranking, within the student population is important, not the mastery of specific learning outcomes.

Criterion-referenced interpretations do not depend upon the score's rank within or relationship to the distribution of scores for other examinees. Examples of criterion-referenced interpretations include comparison to cut scores, interpretations based on expectancy tables, and domain-referenced score interpretations. Criterion-referenced interpretations are used when test scores or ratings connote mastery or competence in a skill area according to established criteria. The absolute skill level is important, not the relative standing of the student against the population of students. In other words, a criterion-referenced score interpretation determines whether a student has demonstrated mastery of specific learning outcomes. The mastery level is specified in cut-scores or scoring guides.

Assessment Characteristics

Reliability refers to the degree to which the scores of every individual are consistent over repeated applications of a measurement procedure and hence are dependable and repeatable.

Validity refers to the ability of an assessment to measure the construct or knowledge, skills, or abilities it purports to measure. Face validity is the degree to which the assessment superficially "looks like" the construct it is supposed to measure. Face validity alone is not sufficient to characterize an assessment as valid. Validity requires that the measurement is aligned with learning outcomes. Another form of validity is related to fairness. Assessments must be free of bias against any group.

Assessment Stakes

Low-stakes assessment results have only minor or indirect consequences for the student. Low-stakes assessments are typically used in formative settings to gauge student learning quickly for the purposes of adjusting instruction.

Mid-stakes assessments are those whose scores have consequence for the student but do not pose health or safety risks if the assessment outcomes are invalid.

High-stakes assessments are those whose results have important, direct consequences for students.

Defining the Learning Assessment Process

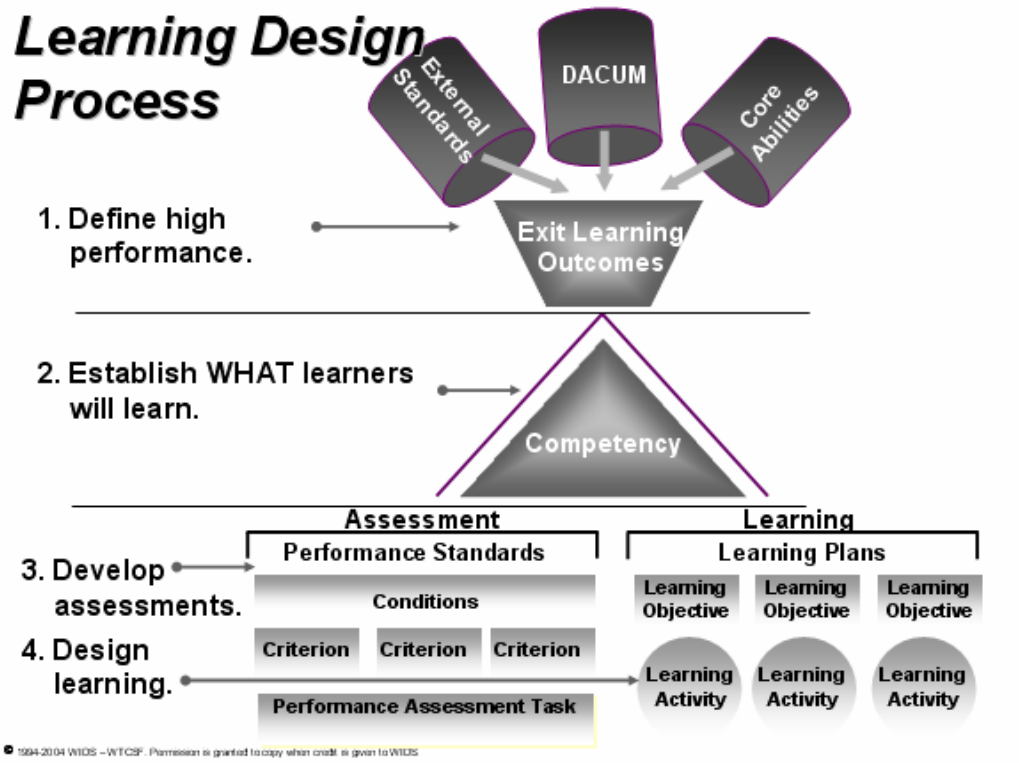
In order to apply assessments effectively to determine whether student learning is expanded or improved, an assessment plan needs to be developed that incorporates assessment opportunities throughout the learning process. To be effective, assessment cannot be an afterthought or instructional add-on. It needs to be embedded, contextualized, and executed within the learning process as illustrated in the white paper *Assessments through the Learning Process*. This chapter will outline the process for developing and implementing an assessment plan for measuring student learning.

Following is a process to follow for the development and implementation of assessments:

1) Define measurable institutional learning outcomes. Establish outcomes at the institutional, program, major, course, and classroom level.

2) Design assessments to measure learning outcomes. Determine the outcomes to measure, determine the purpose for the assessment, determine the assessment method to employ, and determine the kind of assessment data you need to collect.
3) Design learning events based upon learning outcomes. Include assessment activities within the learning designs.
4) Deliver learning.
5) Assess learning and learning events.
6) Gather and format data generated from assessment activities.
7) Interpret the assessment data.
8) Use assessment data to make decisions at the student, classroom, course, major, program, or institutional level.

The following diagram from WIDS illustrates the assessment planning and implementation process.



This model explains the learning design process and starts with the definition of learning outcomes, performance requirements, and competencies. The third phase focuses on the development of assessments and learning. In this third phase, it is important to clearly outline the kinds of data that need to be captured with each assessment and to define the ways in which the data will be used. The following is a worksheet for defining types and uses for data collected through assessments.

No.	Task	Activities	Data Collected
1	Definition of competencies and measurable outcomes	List all competencies and write measurable outcomes for each. Measurable outcomes will tell you if the student has mastered a competency. The outcomes form the basis of assessment questions at each phase of assessment.	Measurable outcomes
2	Diagnostic testing	Develop assessment(s) that sample broadly across learning outcome.	• Student-level • Class-level • Useful to retain for comparison between incoming classes
3	Quizzing	Develop multiple questions for each learning objective. Administered in classes, assignments, tutorials, or case studies.	• Student-level • Data likely to be transient but useful for improving instruction
4	Testing	Develop assessment(s) that sample broadly across learning outcomes.	• Student-level • Class-level • Useful to retain for comparison. between different groups of students.
5	Performance-based learning tasks	Hands-on learning activities to measure competencies and measurable outcomes. Examples are classroom assignments, tutorials, case studies.	• Student measures/outcome of activity. Useful for determining student ability to apply knowledge in appropriate situations.
6	Evaluation	Develop surveys to determine value, worth, effectiveness of instructional delivery, methodology, course content, or college services.	• Instructor-level. • Class-level. • Course-level. • Useful for class, course, department, and division evaluation. • Useful to determine student satisfaction.
7	Practice test	Develop questions that mirror the type and content of what will appear on a certification test. A good example of where a practice test is useful is in preparation for a certification event, such as the nursing boards. Other examples include tutorials.	• Student-level • Data likely to be transient, though could lead to improvements in course instruction and test-taking strategies for students.
8	Certification exam	Develop and pretest questions based on learning outcomes. Create exam according to test blueprint	• Student-level. • Course-level (e.g., pass rates).

Defining an Assessment Data Flow

This section will discuss the reports that can be generated from assessments of student learning and how student-level assessment data can be aggregated at the course, program, and department levels to provide evidence of institutional effectiveness.

For the assessment phases described in the previous sections, there are a number of ways in which assessment data gathered can be viewed and aggregated to support the process of documenting evidence of institutional effectiveness and to promote continuous improvement within the Learning College.

Diagnostic Assessments

Data gathered during diagnostic testing not only indicate learning gaps for students ready to enter a course, they provide useful indices of potential gaps in instruction in previous courses of study, whether they be high school courses or prerequisite college classes. Data gathered from diagnostic assessments can be used in continuous improvement efforts for curricula, teaching processes, learning theories, and textbook selection. Course diagnostic data may be viewed within a department or program to determine where student learning is not meeting course objectives and actions may be taken to lessen the learning gap.

Classroom Assessment Techniques (CATS)
CATS provide ongoing feedback for the learner and instructor on what is making sense and what learners don't understand. They provide information for the instructor on adjustments and modifications that need to be made to a course or learning plan.

Quizzing

Data gathered during quizzing is important for the day-to-day instructional decisions teachers make in the physical and virtual classroom. Quizzing also helps students stay motivated and intrigued in the course, quickly overcome misconceptions by receiving immediate feedback (where possible) and learn and retain information through the search and retrieval process. Quizzing is a critical component, therefore, of promoting continuous improvement in the physical and virtual classroom by allowing assessment data to drive decisions made by learning facilitators. Quiz data may or may not be retained for future or aggregated use. It may be of interest to compare quiz data between different sections of the same course to isolate problems or identify successful instructional techniques but only if the two sections utilize similar quizzing techniques. Because quizzes carry low stakes and are typically developed very quickly, the data gathered through quizzing may not be appropriate for use outside of the immediate learning environment.

Testing

Testing performed at predefined intervals in a course (e.g., midterms and finals) generate data that can be used for a number of purposes. For example, low passing rates may indicate a misalignment between learning outcomes and measurable outcomes, a lack of diagnostic testing and subsequent focus on the skill areas needing attention, or inadequate quizzing during class to determine where students were forming misconceptions or not fully understanding the content. Testing data are also useful for comparisons between sections of a course and courses within a program. Collecting test data over time is useful for determining improvements in student learning based on continuous improvement initiatives. Gains in test data would be useful for documenting institutional effectiveness.

Evaluation

Evaluations may be used for evaluating course effectiveness, determining student satisfaction, and other types of survey needs. Evaluation data provide extremely useful input designed to drive the decision-making process about courses and student services at a college.

Practice Test for Certification

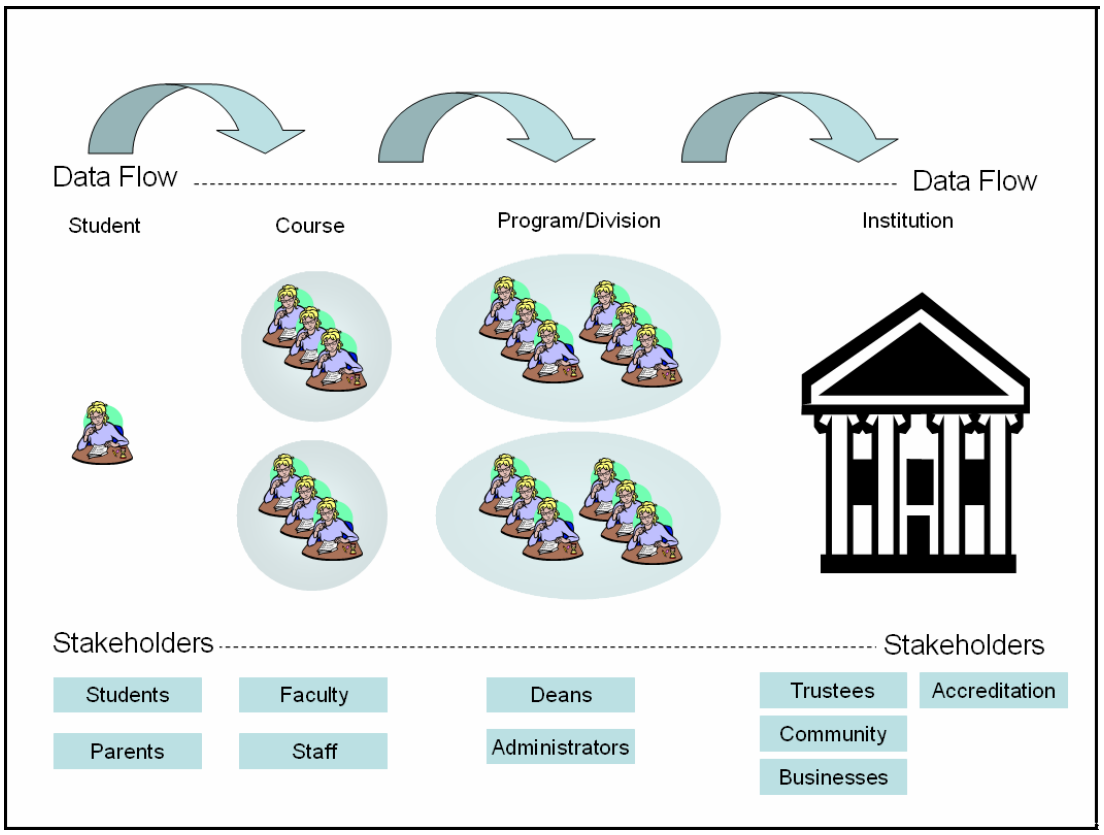
Data gathered in practice test contexts are meaningful for students and for instructors but only if the practice tests are carefully aligned with the content and format of the certification exam. If this is true, then practice test data may be useful for evaluating the amount of student learning and by extension the instructional program.

Certification Exam

Data gathered in certification exams are important indicators of effectiveness for a number of stakeholders. The certifying board or organizations within the community (e.g., professional trades and services) are interested to know the passing rates; college administrators and faculty use certificates awarded as a measure of institutional effectiveness.

The following data flow illustrates how assessment data starting at the student level may work its way up for aggregated reporting at the institutional level.

Assessment Data Flow for Institutional Effectiveness



College Case Studies

Following are four case studies from community colleges that illustrate the process of developing a sound assessment plan focused on students and learning outcomes.

Blackhawk Technical College

Submitted by Jeanne Williams

Overview

Blackhawk Technical College (BTC) located in Janesville, Wisconsin, was founded in the early 1900s and is one of sixteen technical colleges in the Wisconsin Technical College System (WTCS). The college serves the residents of Green and Rock Counties by providing up-to-date courses and programs in technical, basic skills, and continuing education.

The College offers 40 Associate Degree and Technical Diploma programs as well as apprenticeships, certificate programs, contracted business services, continuing education, basic skills, and personal enrichment classes. These programs provide a

variety of career options and training opportunities to meet local business needs. BTC has defined core abilities at the college level and all programs have developed program-level learning outcomes. To assess student learning, BTC has developed an overall plan for assessing student learning outcomes. Key to the assessment plan is the use of an assessment management and tracking tool, and a program matrix. Recently, the College has added an electronic portfolio application to its toolbox to collect student artifacts that illustrate achievement of program learning outcomes or college core abilities.

Problem

BTC has a number of objectives that the assessment plan needs to accomplish. The college is committed to the use of portfolios for gathering and evaluating student work artifacts. Many program outcomes are written as performance-based outcomes, and gathering examples of student work is seen to be the best, most authentic approach to measuring student achievement of performance-based learning outcomes. The use of portfolios, while critical to sound measurement, can present challenges for instructors managing documents, and a successful portfolio system would need to reduce the organizational tasks associated with tracking and managing multiple work artifacts.

Second, BTC was looking for a way to provide more direct, authentic information than is currently provided in a transcript about student achievement of program-level learning outcomes to transfer institutions or businesses looking to hire BTC graduates. The portfolio system provides a vehicle for collecting work artifacts and helping instructors and students determine the best examples of work to share with potential transfer institutions and employers. However, the process for sharing work artifacts needs to be streamlined and easy to use for both BTC students and the recipients.

Third, BTC wanted the assessment plan to help instructors, students and management engage in continuous improvement activities. To facilitate this goal, any data collected within the portfolio system would need to be easily integrated with BTC's electronic assessment data tracking system.

Finally, BTC would like to establish a reputation in the state of Wisconsin and within the technical college system as a leader in the use of innovative technologies, both for instruction and assessment. Developing this leading reputation will help draw students to the school as well as add value for the students obtaining degrees from BTC or transferring to 4-year institutions within the state.

Solution

To meet the needs defined for the assessment plan, BTC developed a specific assessment initiative for assessing student learning outcomes at the college and

program levels. In late fall 2003, BTC implemented a portfolio system from Nuventive called iWebfolio, a web based tool that gives individuals an online portfolio to store and present student work products related to learning outcomes. The goal for implementing iWebfolio was to help faculty members and students review student work on learning outcomes and provide an easy way to store work artifacts electronically, which would facilitate the sharing of work with transfer institutions and potential employers.

The Teaching Learning Center (TLC) recruited three program instructors to participate in a pilot program for the use of iWebfolio. The participating programs were Early Childhood Education, Marketing, and the Legal Secretary program.

The first phase of the pilot entailed TLC staff training program faculty in the implementation and use of iWebfolio. Training included working with instructors to create a template in iWebfolio that included learning outcomes, courses associated with each outcome, and a macro-level scoring guide that could be applied to the scoring of each portfolio submission. This template created the structure in which students could submit portfolio items and allowed instructors to access the scoring rubric, evaluate portfolio items, and assign scores.

Training also included working with students on how to use the portfolio tool for submitting artifacts and determining who would have permission or rights to access the artifacts. iWebfolio could be used for submitting work artifacts related to course assignments or learning outcomes. After training, instructors in each program created the templates, and both students and instructors began using the portfolio system. Following is an overview of each of the three programs participating in the pilot portfolio project.

Early Childhood Education Program

This program had been using a paper portfolio for assessment of program outcomes and began using the iWebfolio system in late fall 2003. An electronic portfolio was appealing to the early childhood instructors for four reasons:

1) The electronic portfolio would be easier to maintain; instructors didn't need to carry and track paper documents for grading and evaluation.
2) The electronic portfolio provided an opportunity to more easily share work artifacts with colleges that had articulation agreements in place with BTC.
3) It would be possible to integrate work artifacts and scores with the assessment tracking system.
4) It was showing the use of cutting-edge technology, an important objective for a technical college wanting to illustrate and demonstrate technical sophistication to schools with articulation agreements in place.

Marketing Program

The iWebfolio pilot project was a good fit with the marketing program because of the program's overall sophistication with software tools and because marketing courses often required students to generate media files as course assignments. The electronic portfolio system allowed marketing students to submit media files as work artifacts that instructors could evaluate. In addition, marketing students could more easily share portfolio artifacts with potential employers. The marketing program began their pilot program in spring 2004.

Legal Secretary Program

The pilot portfolio project was a good fit with the legal secretary program because faculty in the program are innovative, open to risk, and willing to take on additional work in the short-term to advance critical program objectives. One of the important goals for the legal secretary program is to provide a method for students to collect documents that can be shared with potential employers. Work examples such as findings of fact, last wills and testaments, living wills, and various legal motions are often required by employers as part of the hiring process. The legal secretary program felt the iWebfolio system could allow students to collect work artifacts and receive evaluations from instructors that would guide students in choosing the best work sample to submit to potential employers. The legal secretary program began their pilot in spring 2004.

Results

Because the pilot has only been operating for two semesters in the early childhood education program and one semester in the marketing and legal secretary programs, quantitative data has not yet been collected to guide the evaluation of the pilot. However, anecdotal information from students and faculty in all three programs indicate that the portfolio system is providing a valuable means of aligning work products with learning outcomes, collecting and evaluating work samples from students, easing the task of managing student portfolios, and providing a good method for selecting the most appropriate work samples to share with articulation institutions and potential employers.

Dallas County Community College District

Submitted by Dr. Allatia Harris

Overview

The Dallas County Community College District (DCCCD) is a multi-college district, with seven separately accredited colleges, a center for telecommunications, and a small business development institute. Dallas County is both urban and suburban, ethnically and economically diverse. The DCCCD offers a large transfer program as

well as a strong workforce presence. Credit programs enroll more than 60,000 students each fall, with more than 80,000 students served through noncredit offerings annually. Even though the colleges are separately accredited, the district is funded as one entity by the state of Texas through the Texas Higher Education Coordinating Board. Students transfer freely and regularly between and among the seven colleges.

Problem

In 1997, the Texas legislature passed legislation that required colleges and universities to develop a core curriculum of not less than 42 nor more than 48 credit hours. The charge from the state was that the core curriculum should address eight broad perspectives and should integrate intellectual competencies (reading, writing, speaking, listening, critical thinking, and computer literacy) across the curriculum. The core curriculum should also address exemplary educational objectives which were determined by a state committee.

DCCCD faculty participated in a two-year course-selection process to identify courses which addressed the eight perspectives and which would prepare students adequately for transfer to a four-year institution. After open hearings on all seven campuses, revisions, further discussion, and final revision, a 48-hour core curriculum was approved in December, 1999. Then, discipline committees comprised of faculty from each of the seven colleges participated in another two-year process to determine which courses addressed which intellectual competencies and which educational objectives. By summer 2002, syllabi for all core courses reflected specific core intellectual competencies and exemplary educational objectives, as determined by district discipline committees.

A major element of the state-mandated core is the requirement to evaluate the effectiveness of the curriculum and to assess student achievement of learning outcomes. Initial plans must be filed with the state in 2004, and outcomes evidence is to be reported in 2009.

The Dallas faculty has long used a variety of instructional methods and assessment techniques in their individual classrooms. The challenge was to determine assessment methods that would be valuable in improving instruction and student achievement on a grand scale, across sections and across disciplines for the more than 45,000 students who enroll in core courses each semester.

Solution

Assessment data must be meaningful to support continuous improvement of educational programs. The decision was made to conduct college-based assessment (rather than district-wide assessment) to collect data for immediate use to improve

delivery of instruction, enhance student support services, and foster faculty dialogue within and across disciplines. A district team comprised of representatives from each college was assembled to share results, best practices, and lessons learned.

Results

Student results are only now being collected for core curriculum assessment purposes, but the district team has observed positive results to accrue from the faculty-driven process of developing the assessment plans.

College plans are currently in the final stages of development. Each college has reported that systematic dialogue among faculty has been required to develop the college evaluation plan. At some locations, faculty dialogue began as discipline groups determined assessment methods for exemplary educational objectives within broad discipline areas. For example, science faculty met to discuss assessment in biology classes. The discussion led to a comparison of the basic objectives of introductory biology parallel with the objectives of introductory physics or chemistry.

Discussions are also occurring across disciplines regarding how and where in the curriculum the achievement of intellectual competencies can be assessed meaningfully. Where are the benchmarks to be established? Discussions on questions such as, "What does it mean to be computer literate in speech communication?" and "What does it mean to be computer literate in economics?" have led to new assignments across disciplines at one college. Another college is examining critical thinking, and hosting workshops to address questions such as, "How can we use a common language across disciplines when we teach critical thinking?" Interdisciplinary faculty groups are discussing the need for students to understand the connectedness of their studies, to understand that “this is critical thinking in mathematics, and this is how we approach critical thinking in the social sciences.”

College plans include maps to assess competencies across the curriculum, beginning with computer literacy-across-the-curriculum, writing-across-the-curriculum, and critical thinking- across-the-curriculum. Discipline-based assessment activities are scheduled to include a variety of assessment types including portfolio assessment, embedded questions, common assignments across sections and common scoring rubrics, departmental examinations, videotaped oral presentations, and group projects. The timeline for 2004 - 2009 reflects comprehensive assessment of competencies and exemplary educational objectives. Faculty members have aligned their efforts to address the question: “How best do we know what Maria knows and what she can do?”

Kirkwood Community College

Submitted by Richard Edwards

Overview

Kirkwood Community College serves a seven county area in eastern Iowa. With an enrollment of more than 15,000 students, the college is the fourth largest higher education institution in the state and offers 62 liberal arts majors and more than 80 Applied Science programs. The Health Science department enrolls more than 2,000 students in 15 programs.

These Heath Science students must complete a core curriculum consisting of Heath Skills I and II, First Aid, Professionals in Health (including OSHA regulations) and OSHA Recertification before progressing to other program courses where they apply skills learned from the core content. These courses encompass 12 critical competencies, which are aligned with 53 specific learning outcomes.

Problem

Accreditation agencies want direct measures of student learning. NCA states, "Programs that have accountability as their only goal fail to provide faculty and students with information useful to the improvement of instruction and learning," and Criterion Three wants to know how "the institution is accomplishing its education goals." Likewise, other stakeholders such as certification boards, advisory committees, administrators and the general public seek direct evidence of student learning. Whereas grades, graduation and job placement rates are one indicator of student success, the critical question is, "*How well have Health Science students mastering general health core competencies and learning outcomes?"* Direct measurement of student performance and achievement is needed to answer this question, and data is also needed to help students identify areas needing more attention and to help instructors tailor learning activities to meet the needs of students. How can we get this data and what can this data tell us about improving instruction and learning? And how does this data contribute to assessing departmental and institutional effectiveness?

The Solution

An Assessment Plan. The first step in answering these critical questions is to develop an assessment plan that will identify measurable learning outcomes,

provide outcome-level feedback to students, and yield performance and question data to guide instructors.

The Health core curriculum defines 12 measurable competencies:

1. Identify OSHA safety & health regulations
2. Identify, recognize, & apply appropriate responses to emergency situations
3. Recall & comprehend vital signs
4. Identify & recognize techniques for positioning & movement of self, objects
5. Identify & recognize techniques for positioning patient
6. Recall & comprehend infection control guidelines
7. Identify learning to learn techniques
8. Identify communication techniques
9. Identify & discuss professional expectations
10. Define, identify, & recognize legal & ethical standards
11. Define, identify & explain health industry concept
12. Identify safety & health regulations

These 12 core competencies are in turn broken into 53 specific, measurable learning outcomes. For example, competency #2 — Identify, Recognize, & Apply Appropriate Responses to Emergency Situations — has two learning outcomes: Recognize steps in performing vital signs and observations and Recognize body injuries, bandage/splints. The next step is to design assessments to measure student acquisition of these competencies and learning outcomes.

Design Assessments. Questionmark's Perception system is an ideal assessment and data collection tool for a number of reasons. Clearly defined and hierarchically organized competencies and learning outcomes must be entered into the system before any questions and item pools can be created. This prerequisite acts as a verification of faculty definitions and organization of competencies and learning outcomes and sometimes can lead to valuable rethinking and review of these definitions and their organization. Using question wizards, faculty can easily create a variety of item types and organize questions into item pools. Automatic and immediate generation of score reports on the competency and learning outcome level provides timely feedback for students and instructors; likewise, automatic generation of item statistical data provides an evaluation of test performance. Assessment security is maintained at a high level, and feedback can be enabled to give students sub scores on competencies and learning outcomes, and rationales on correct and incorrect answers. Perception is an effective tool for facilitating continuous improvement efforts.

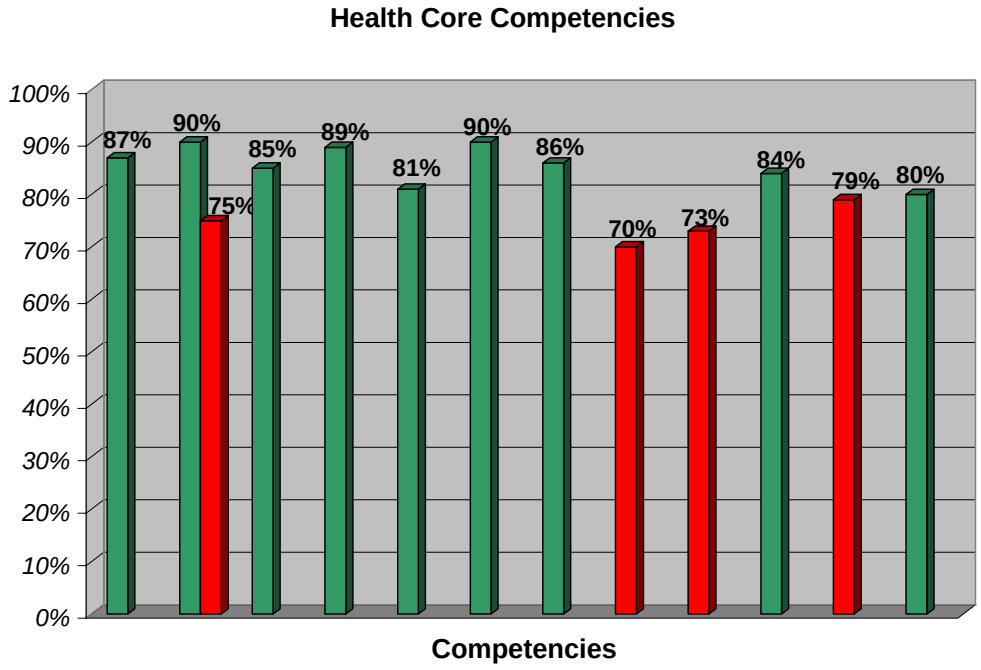
In Health Skills I and II, students take a final test covering concepts they will apply in hands-on labs. The First Aid final test offers an opportunity for students to demonstrate their knowledge in a different format. Seventeen first aid scenarios

(or cases) are presented followed by questions that assess the student's ability to apply first aid techniques given the scenario description. For instance, "*A child at school has been at recess on the playground. As she is returning to the building, she is pushed from behind and her right arm goes through a glass door. Blood is spurting from above her elbow. The child is screaming and an adult on the scene goes to call 911*." Questions assess First Aid course learning outcomes associated with this particular scenario. A midterm test and final is administered in Professionals in Health, which includes an assessment of general student knowledge of OSHA rules and regulations. These regulations are assessed in the OSHA Recertification tutorial and quiz. This online tutorial reviews OSHA safety and health regulations and then is followed by a formative quiz to assess student understanding of these regulations. If the student does not obtain a passing score, the tutorial and quiz can be repeated until mastery is achieved and the student is certified to attend clinic.

Assess Learning. At the conclusion of each Health core course, students are given a one-week testing window to take the secure test at the campus Testing Center or at one of the 10 Learning Centers over the seven county service area. After each test, students immediately receive a percent correct score and grade, and can also receive competency and learning outcome sub-scores and rationale feedback. No class time is devoted to testing, so additional instructional time is gained (a positive ROI).

Results

Interpret Assessment Data. Analyzing data from core course assessments provides a picture of strengths and weaknesses in student learning, and in turn in instruction. If a score of 80% indicates mastery, data analysis can identify where students are or are not succeeding. An analysis of data gives an overview of student mastery of the 12 Health core competencies. The chart below shows students scoring above 80% in 10 of 12 major competencies.



This data is drawn from the following samples: Health Skills I (N=1945), Health Skills II (N=1259), First Aid (N=1037), Professionals in Health midterm (N= 746), Professionals in Health final test (N=562), OSHA quiz (N=1413).

Note that the second column from the left shows two average scores on the OSHA competency: students are averaging 90% on questions assessing their general understanding of these regulations in the Professionals in Health course and 75% on the more specific OSHA Recertification quiz.

Further analysis shows students are achieving mastery level (80%) on 34 of the 53 Health core learning outcomes, and data from the First Aid test (N=1037) indicates students are averaging 87% on the 17 first aid scenarios.

Data analysis also shows areas in instruction and learning that need attention. For example, the Perception Assessment Overview table (shown below) for the First Aid scenario described previously (pbunch_scenario_d), indicates that students averaged 74.3% on questions assessing their application of skills in this particular emergency first aid situation, and below 80% on learning outcome 101. 2, Identify Steps in Performing Vital Signs and Observations, and 102.1, Bleeding, Wounds, Shock. (The “pbunch” prefix denotes the faculty question author.)

First Aid

(N=1037)

Competency/Learning Outcome	Average score
pbunch-scenario_d	*74.3%*
pbunch-scenario_d\101.2 Identify Steps in Performing Vital Signs	*67.2%*
pbunch-scenario_d\102.1 Bleeding, Wounds, Shock	*75.8%*

Using this assessment data Health faculty can identify breakdowns in the teaching/learning cycle and devise timely interventions to improve learning and performance. Data can help them evaluate what theory of learning and motivation was applied and how effective the instructional strategy derived from that theory was in teaching students core competencies and learning outcomes. Certain Health faculty have been designated “facilitators” of each core course to foster ownership and oversight, and assessment data will help them make pedagogical decisions in content and delivery.

However, data on student performance provide only one part of the picture. An analysis of how the questions are performing is necessary, too. Perception automatically generates item level statistics. For example, the chart below shows the difficulty (P value, proportion correct), item discrimination, and item correlation for the question assessing learning outcome 102.5 in the First Aid test.

Question - 102.5 You go to accident scene and find the baby wrapped snugly in a snowsuit. What part of the baby's body is most at risk for frostbite?

Number of Results	Number Not Answered	P Value Proportion Correct	Item Discrimination	Item Total Correlation
1057	0	0.83	0.25	0.32

Outcome Information

Outcome Name	Times Occurred (Frequency)	Proportion Selected	Upper Group	Lower Group	Outcome Discrimination	Outcome Correlation
0 Hands	67	0.06	0.02	0.15	-0.13	-0.24
1 Feet	36	0.03	0.01	0.06	-0.05	-0.14
2 Ears	76	0.07	0.03	0.11	-0.08	-0.13
* 3 Nose	878	0.83	0.93	0.69	0.24	0.32
Not answered	0	-	-	-	-	-
TOTAL	1057	-	-	-	-	-

Examining item-level statistics can identify those questions that are too easy or too difficult as well as those questions that do not adequately discriminate higher performing students from lower performing ones, and items that do not correlate well with overall performance on the assessment. The facilitator of each core course will review item statistics for each test and make recommendations for revision of item pools to continuously improve the quality of the assessment.

Use Assessment Data for Continuous Improvement. NCA requires a school improvement plan: *Each school conducts a continuous improvement process that focuses on enhanced learning for all students. At all times the school is engaged actively in some phase of the school improvement process (*School Improvement Plan 1). Assessment data can be used to help enhance student learning by providing timely and detailed feedback on specific competencies and their associated learning outcomes. Assessment data can help faculty tailor instruction and guide instructors and administrators in curriculum development efforts. It helps students take ownership over their learning and helps all stakeholders see direct evidence of student learning. Assessment data provides an evaluation of instruction and learning on the course level and in turn a measure of departmental and institutional effectiveness on a broader level. The measure of institutional effectiveness is placed where it should be, at the intersection of teaching, learning, and assessment, and responds to the two Learning College critical questions posed by Terry O'Banion: "How does this action improve and expand learning? How do we know?"

Monroe Community College

Submitted by Dr. Susan Salvador

Overview

Monroe Community College (MCC) was founded in 1961 as part of a state-wide system. Today, MCC is one of the 30 community colleges within the State University of New York (SUNY). As a multi-campus institution, it has more than 35,000 full-time and part-time students registering for credit and non-credit courses each year. The college is recognized as one of the most innovative community colleges in North America by the League for Innovation in the Community College and is one of the 19 institutions that have staff serving on the organization's Board of Directors.

Problem

MCC was committed to and interested in developing a way to assess student growth and learning outside the classroom. Regularly, students apprise potential

employers of their strengths in the areas of management, leadership and organizational skills without being able to authenticate their growth and development. The college recognized this challenge for students as well as the institution and committed to develop an assessment instrument that would synthesize and assess a student's personal and social growth in and outside of the classroom. The college's goal was to avoid student self-reporting and instead offer student and professional staff assessments to help transfer institutions and employers know the skills students possess.

Solution

Employers have consistently shared that they want to hire employees (students) with certain social and personal growth skills. They state that when hiring, efforts are made to identify top candidates who have the appropriate academic degree as well as those with leadership and social skills. Students' co-curricular transcripts would organize and formalize their growth in areas outside of the curriculum and assist them when they sought employment. Research was conducted to review other models of co-curricular transcripts and to identify the myriad of skill sets that students should possess.

The research showed that most colleges that have co-curricular transcripts utilize a student self-report model. Although the self report model is useful, it does not provide a professional assessment of the attributes. MCC chose to use facets of existing models (skill development, position listings, honors/awards, additional activities leading to personal development), along with skill sets defined by the Director of the Career Center to establish a new model. The goal was to develop a transcript that would certify a student's performance with three specific areas of development – Leadership Skills, Communication Skills and Management Skills each with a selection of attributes.

MCC developed an assessment to measure each of the three development areas. Each attribute is assessed on a Likert scale from 1 to 5. The transcript is accessible on the computer for easy access and efficiency.

The assessment is a Likert-scale, 1 - 5, based on the student's perceptions of their leadership skills and the advisor's observations of the student's performance.

The structure requires the advisors to work with the student to complete an initial assessment of their skills when they begin their leadership roles. The student and advisor each complete an assessment and agree upon the outcomes that will be recorded. This step establishes the student's co-curricular transcript file. As the student works in a leadership position, they are required to meet regularly with their advisor and keep a personal journal of their experiences including items such as committee work, leadership positions held, awards received, and other experiences that helped develop leadership skills. When a student is ready to

graduate or leave the College, the advisor meets with the student to complete the final assessment. The student and advisor individually complete assessments and then meet to agree upon the assessment that will become part of the student's record. At this time, the student also submits a listing of the positions he/she has held, committees he/she participated in, awards received, and work done. This document is also certified by their advisor and added to the student's co-curricular transcript record.

Upon the request of the student, a completed co-curricular transcript is provided to the student. The student can send it to his/her transfer institution or employer along with his/her academic transcript. As the college looks to increase the number of students who use the co-curricular transcript, the college also recognizes the challenges to effectively and efficiently assess the increasing number of students. As a result, the Assistant Director for Clubs and Organizations may be appointed to attend club meetings, observe students' participation in the Student Leadership Institute classes, and identify additional alternatives to aid in assessing student leadership skills. Attempts are also being made to gain greater support from faculty advisors of clubs to assist in the assessment process. Faculty have been very supportive of the co-curricular transcript process, and it is a priority to continue to train them to work with students in this assessment process. Presently, it is a requirement for all students who are involved in a leadership position to develop their own co-curricular transcripts.

Results

The co-curricular transcript is a work in progress. To date, there are approximately forty students who have developed a transcript. The first student to graduate with a co- curricular transcript found the documented information very useful and effective.

The students who are in the process of building the transcript are learning a great deal about themselves through the on-going feedback from their advisors. It is the College's plan to ensure that every student involved in a leadership position develops a co-curricular transcript.

The college plans to offer the co-curricular transcript on the web to increase accessibility and involvement. Ultimately, the college would like for students to have the capability to track of their entire journal and leadership history at MCC via the web.

The College's administration has been extremely supportive of the co-curricular transcript program. The Vice President for Student Services has been involved in the development and implementation of the co-curricular transcript and continues to support and promote this initiative; the President of the College has endorsed the program. With the support of the administration at MCC, the transcript will

hopefully become an official part of the student's college records. The college is working to insure that in the future a student will be able to request a co-curricular transcript along with his/her academic transcript from Records and Registration. The goal of the college is for the co-curricular transcript to continue to develop to address the changing needs and skills of the students.

Data collected will assist the Campus Center staff in determining where the leadership development program needs to be strengthened or changed. If most students do not show growth in certain areas, the staff will analyze what is currently being done and incorporate experiences/workshops to assist students in developing these skills.

The transcript process can show evidence of student success and learning outside of the classroom. By documenting the student's initial leadership skills and their growth throughout their experiences at MCC, the transcript can be an effective tool in providing evidence of institutional effectiveness. The transcript process addresses the mission of the College which holds student success and student learning as key principles, and it addresses areas in the College's strategic plan by providing meaningful out-of-class experiences for our students.

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