Northland Pioneer College

STRONG MINDS. STRONG COMMUNITIES.

FACULTY HANDBOOK FOR THE ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT

JANUARY 2004

This manual was developed to aid their colleagues in the measurement of
student learning outcomes by the members of the
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NPC Faculty Handbook for the Assessment
of Student Academic Achievement

I. INTRODUCTION

This guide is offered to assist NPC faculty in classroom related assessment of their students. Assessment is sometimes confused with institutional effectiveness, of which it is a component part. Institutional effectiveness encompasses student learning as well as college finance, productivity and community development. Academic assessment is oriented solely to improvement of the learning and teaching processes at the college and is not related to the faculty evaluation system.

The college places value on assessment as part of its institutional effectiveness and North Central accreditation processes. More important is our shared vision of being learner-centered, which underpins our continued efforts at development of useful measures of student learning. This handbook and the current college assessment process are based on the following assumptions:

A. Education goes beyond knowing to being able to demonstrate knowledge.

B. Educators are responsible for facilitating learning by articulating class outcomes and criteria for successful performance.

C. Outcomes involve generic abilities, not specific tasks.

D. Abilities can be developed.

E. Competencies can be assessed.

*F. In order to be a lifelong learner, one must be able to evaluate one's own work.

NPC faculty members were recognized by the North Central Association of Colleges and Schools during their November 1999 accreditation visit for their willingness to develop and maintain a system of student assessment. The current program at NPC is noteworthy due to the number and variety of measures developed in-house by faculty as part of an ongoing and focused process.

We hope that this publication will be useful as a resource to faculty in their continued efforts at assessing student learning outcomes.

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II. HISTORY AND DEVELOPMENT OF ASSESSMENT AT NPC

The development of a plan to assess student outcomes was undertaken in 1994 by faculty at the College. A committee was formed to oversee the process and help develop an overall plan for the various sub-groups. Make-up of the committee consisted of faculty representatives of the instructional divisions and academic administrators.

After the initial planning, faculty in the various departments and occupational programs were actively involved in work sessions to identify measurable outcomes related to Northland's Mission and to develop valid instruments to assess student learning. Through the process of department and division faculty meetings, an institution-wide plan was developed.

In May of 1995, Northland submitted the faculty-approved plan for the Assessment of Student Academic Achievement to NCA. This plan was approved by NCA in September of 1995.

During the first year of implementation, several of the cluster areas found that changes needed to be made in the instruments developed for assessing each of the outcomes tied to their respective areas. Through faculty discussions, the plan has become an evolving process in which faculty are actively developing analytical methods to measure what the student is learning and ultimately make changes in curriculum related to teaching and learning strategies. Changes made by several of the cluster areas have contributed to increased validity of the instruments and data collected. The following summary outlines some of the faculty findings and strategies for change in departmental assessment processes.

Summary of Progress for 1997-1998 Through February 1999

Institutional Progress Reports, by education mission category, are compiled annually from department annual assessment reports and evaluated with respect to the degree of implementation of assessment of program outcome goals based on an Activity Scale of I to V. Activity levels were defined as follows:

Level I	Develop Measures/Instruments/Process Details
Level II	Implementation of Data Collection Activity
Level III	Data Analysis by Area Instructional Leaders/Dean
Level IV	Use of Data Analysis to Improve Instruction & Learning
Level V	Use of Data Analysis to Improve the Assessment Process

Two areas, Mathematics and Social and Behavioral Sciences were in the Level V activity range for their outcome areas in 1996-1997. The General Education areas of Composition and Arts/Humanities achieved the Level IV activity and the Physical and Biological Sciences attained Level H activity.

In 1997-1998, four of the five (80%) General Education areas (Composition, Mathematics, Arts and Humanities, and Social and Behavioral Sciences) were in the Level V activity range for their outcome areas. Social and Behavioral Sciences developed a related program completer opinion survey that was given to a random selection of students within that area. One of the five (20%) General Education areas, Physical and Biological Sciences, attained the Level IV activity range.

Selected Examples of How Assessment Has Improved Teaching and Learning

Analysis of the data and reports submitted for 1997-1998 through February 1999 demonstrates departments/ cluster areas are using the information gained from assessment to improve student learning and increase retention.

A. Composition

Assessment activities revealed that composition students are experiencing common problems. Recommendations to improve student learning included:

1. Strengthen instruction to provide a clear differentiation between plot summaries and analysis.
2. Specifically address the use of textual evidence to support ideas.
3. Change texts to provide more interesting material for students to use in their writing assignments.
4. Investigate and possibly strengthen controls in the concurrent enrollment program.
5. Strengthen the assessment process for the composition area. (Several specific suggestions were included.)

B. Math

1. Revise the standardized examinations for Introductory Algebra (MAT 109) and Intermediate Algebra (MAT 112) and establish consistent scoring guidelines, share teaching strategies that work best, exercise more control in placement and course enrollment patterns, and offer more stand-alone classes.
2. Provide more student curriculum support services such as: testing centers, open tutoring labs, calculator use workshops, one-on-one communication channels for distance learning students, and improved visual presentations for distance learning classes.
3. Solicit feedback from customers, such as faculty from General Education areas and career preparation areas, to confirm that students have or have not gained skills needed to succeed in those areas.

C. Arts and Humanities

1. Place more emphasis inside the classroom on how materials studied related to the society from which they come and our society today.
2. Change Art History textbook to address student comprehension problems in reading material.

D. Social and Behavioral Sciences

1. Resident faculty will gather additional data and information related to the nature and teaching of critical writing/thinking skills and share this collection with associate faculty.
2. Restructure the survey instrument used to assess effectiveness/learning in the area of racial, ethnic, and gender issues. Data analysis indicated that improvement in the learning approaches is needed in these curriculum areas.

E. Physical and Biological Sciences

1. All faculty should use consistent reporting formats for the assessment of final examinations and technical and scientific written lab reports.
2. Resident faculty need more interaction with associate faculty to discuss the future direction and needs of the physical and biological sciences.

Conclusion

Northland has a clearly defined and coherent General Education program that is consistent with its Mission and Purposes and with the standards and expectations of Arizona's Academic Program Articulation Steering Committee (APASC). It is designed to ensure that students attain fundamental skills, familiarity with the various branches of knowledge associated with higher Education, and practice in disciplined, independent thinking. Faculty have consistently taken a leadership role in the development and assessment of the General Education program and the assessment of student outcomes and are using the information gained from assessment to improve student learning and increase student retention.

III. DEPARTMENT PLAN FOR ASSESSMENT

The principles of student assessment and use of assessment feedback for improving student academic achievement is an integral part of the college mission. Assessment of student academic achievement is measured across all six academic mission areas in order to match instructional resources to student need and to provide accountability to all stakeholder groups. Our six educational purposes include:

1. General Education - To foster the intellectual inquiry and breadth of knowledge as well as the skills inherent in general education.

2. Degree/Certificate achievement and Transfer Preparation - To facilitate student achievement of Associate degrees, Certificates, and/or successful transfer to Baccalaureate programs.

3. Employability - To promote the development of occupational skills.

4. Personal Enrichment - To encourage an awareness and appreciation of social, cultural, intellectual and artistic endeavors, as well as individual development and cultural diversity.

5. Developmental Education -To facilitate student success through development of skills essential for effective learning.

6. Economic Development (Customized Education) - To contribute to economic development through community programs and activities.

The chart that follows describes assessment activities and processes carried out at NPC.

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Department Plan for Assessment Table

Outcomes	Measures/ Data Sources	Population Assessed	Who Initiates/ Administers Assessment	Who Sets/Provides Analysis to Standards	Accumulated Data/Storage	Timetable	Use of Data	Who Receives Results/Data
What is the desired student learning outcome for the course/ department?	Measures used, such as final essays, projects, portfolios.	All students enrolled in catalog listed courses for AA, AS, ABUS, AAS, AGS degree requirement-filling courses.	Depai_ment Faculty and Division Dean. Typically "Assessment Day" is held in mid-February, using the previous fall semester student data.	Division Dean with Faculty Panel to review student work based on course outlines and agreed upon rubrics, achievement levels, portfolio results, etc.	Faculty and Division Deans maintain data for their use. Deans submit Assessment Reports to the Vice President for Instruction by May 15·h. Data from all departments is compiled for use as a college-wide information source.	It is recom-mended that Assessment Day be in mid-February, using data from the previous fall semester. Submission of Department Assessment report to Instructional Support by the end of spring semester, college-wide report developed by Instructional Support available the following fall semester, validation that outcome is actually being achieved.	Ideas on course/ policy/ procedure revisions for outcome improvement. Historical awareness of changes over time in quality of outcome.	Division Deans, Department Faculty, V.P. of Instructional Services, Information Services, Instructional Research Office, requesting instructional dependent program administrators, stake holders requesting regulatory agencies and others having a "need to know".

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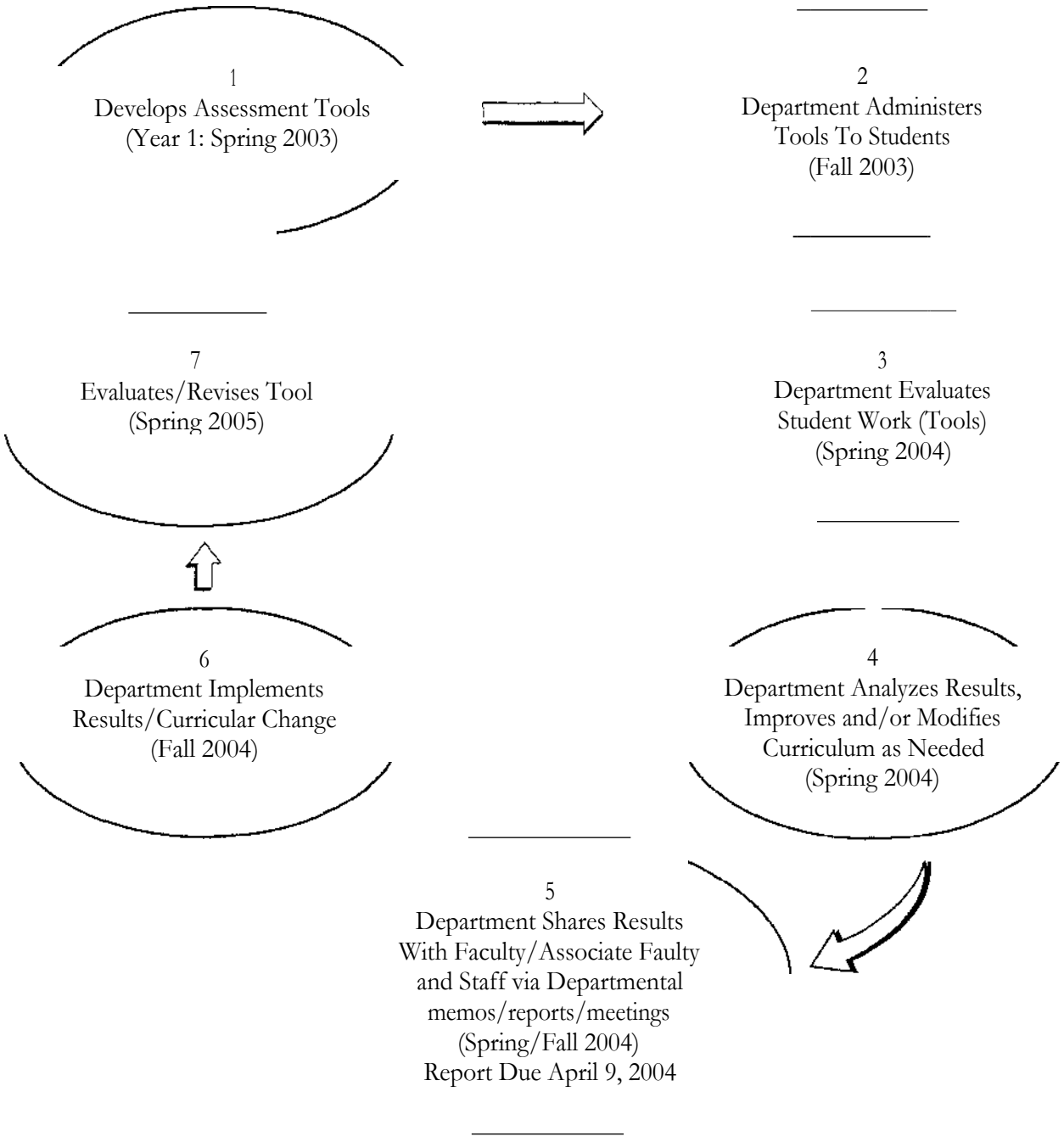
TWO YEAR CYCLE OF ASSESSMENT



IV. FIVE LEVELS OF ASSESSMENT ACTIVITY

General Examples

The levels of activity that follow are listed in descending order of desirability, level one being the beginning level, level five being the target level of activity. It is assumed that as the department acquires each level of activity, the preceding activities are maintained, thus a department at level five maintains levels one through five.

Level I — " Department assessment processes have been detailed and developed for use by faculty".

Instruments and measures are developed by the department, including grading rubrics and instructions for faculty and students. Instruments can include "double-dipping" types of measures such as the use of fmal class projects or compositions, which can be used in conjunction with departmental grading rubrics.

Level II — "Data collection has been implemented".

Instruments and measures agreed upon by the department are collected and graded. Included are copies of grading rubrics, if used, analysis of test questions, and overall faculty findings and recommendations.

Level III — "Data analyzed by department Leaders/Dean".

Department Faculty, Leaders and Dean review and analyze assessment results in view of departmental and course objectives. Implications of assessment results are considered in relation to department and course objectives: were objectives achieved or not and why? Other important questions to ask may be: are course modifications needed to improve student learning and are instruments used appropriate measures for student learning?

Level IV — "Faculty. Instructional Leaders and Deans have used the data to improve Student Academic Achievement".

Review and use of data analysis leads to modifications to student course enrollment requirements, curriculum, teaching methods, revision of study guides or exams. Changes and improvements in data gathering techniques, grading rubrics and data analysis can also be derived from level IV activities.

Level V — "Use of data to improve the assessment process".

Review and use of data analysis leads to improvements and streamlining the assessment process. Generally methods to simplify and make the process more powerful are found through this process.

Samples of Activity Levels From Several Departments

The following examples of assessment activities are from different departments within the college and may be useful in the development or modification of departmental assessment techniques. The samples that follow are not an exhaustive listing of all techniques used at the college, but are cited as representative of each level of assessment practice.

Level I: Department assessment processes have been detailed and developed for use by faculty.

The Natural Sciences faculty has determined that during each spring semester, faculty members will select random samples of student final examinations from **Biology, Chemistry,** and **Geology** from the preceding fall semester. Faculty members will convene to discuss random sample final exams, student laboratory work samples and related pre- and post-test samples of student work. Four random samples from each full-time and associate faculty member will be reviewed for retention of course content (application of scientific methods, intensive writing and critical thinking and race/gender ethnic awareness) at a level of "C" or better.

Level II: Data collection activity has been implemented.

Social and Behavioral science faculty determined that student outcomes would be measured by student understanding of: the scientific method/critical thinking, intensive writing/critical inquiry and global, historical and international awareness. Measurement along these continuums is achieved through the use of randomly selected final papers from **sociology, history, psychology, geography, political Science, philosophy and anthropology.** The papers were reviewed by a department faculty committee, and rated for levels of understanding of the three sets of concepts noted above. The level of race, ethnic and gender awareness of students is also an area of importance for the social and behavioral sciences. Data collection in this area has been through the use of faculty developed student self-rating survey for race, ethnic and gender awareness.

Level III: Faculty, instructional leaders and deans have analyzed the data.

The nursing program faculty, director and division dean identified a national nursing assessment test that is given to 4th semester graduating students prior to graduation and students taking their state board exams. The results of this "dry run" assessment provide needed information on individual student performance and possible remediation needs. It is also beneficial for faculty to review and tune curriculum in areas where a number of students have problems in a single given curriculum area.

Level IV: Use of data by faculty, instructional leaders and deans to improve student academic achievement.

While completing last year's assessment of ENL 101 and ENL 102 "stand-alone" students, English department faculty identified concerns related to the achievement of students taking ENL 101 and ENL 102 over the video system. "There is some sense that teaching writing by way of distance learning is not a particularly successful method". Data acquired through assessment activity will help determine if changes need to be made in teaching writing via distance learning.

Level V: Use of data to improve the assessment process.

Math department faculty identified random samples of student MAT 109 and MAT 112 final examinations in order to assess student competency in each course. The examination questions were then matched to the corresponding learning objectives outlined in student study guides and the master course outline (3035) to ensure that the questions adequately measured student learning.

The team found that the examinations were providing a good measure of student achievement, but that for MAT 109, application problems could be more evenly distributed through the exam rather than occurring at the end of the exam. In addition, the group found that some test items did not have corresponding objectives in the study guide, or that the objective was not specifically enunciated in the guide. These findings were used to modify examinations and study guides to optimize the assessment of student learning.

Sample Activity Levels From One Department.

During their fall 1999 accreditation visit, NCA Consulting Evaluators identified locally developed summative instruments and methods used at NPC as a strong point for the college. These methods were developed by faculty to provide summative data on student achievement and are a credit to the faculty and departments at the college. The following is an assessment from the English department, which may be replicated by other departments. The example identifies activity levels I through V.

Level I Activity: Department assessment processes have been detailed and developed for use by faculty.

The English Department: Completed summative assessments on 30% of students completing ENL 101 and 30% of students completing ENL 102. The assessments consisted of end of semester essays on topics selected by the students. Instructions to students include desired performance standards including development and support of thesis statement, number of words required and the following items:

What are we looking for?

Your instructor will award a score that reflects an overall judgement of your writing abilities. He/She will consider and evaluate the following aspects of your writing:

Thesis:	1	2	3	4	5
	F	D	C	B	A

- Does your essay have a clearly focused main idea answering the question posed by the exam? Does this thesis effectively guide the paper's organization?

Summarizing:	1	2	3	4	5
	F	D	C	B	A

- Can you accurately and effectively summarize the main points and supporting details of the passage?

Development:	1	2	3	4	5
	F	D	C	B	A

- Do the body paragraphs give clear reasons to accept your thesis and include appropriate examples, illustrations, and discussion?

Organization:	1	2	3	4	5
	F	D	C	B	A

- Is the paper effectively paragraphed to present a reasonable sequence of ideas, with effective topic sentences and transitions?

Expression:	1	2	3	4	5
	F	D	C	B	A

- Are the ideas expressed clearly and effectively in ways that are appropriate for a college-level audience?

Mechanics.	1	2	3	4	5
	F	D	C	B	A

- Do spelling, punctuation, and grammar reflect standards of written English?

Total:_____

27 - 30 = A
24 - 26 =
21 - 25 = C
18 - 20 = D
17 and below = F

Level II Activity: Data Collection has been implemented.

Final papers were used to determine student final class grade as well as assist the department in assessing student learning outcomes for the two courses. The essays were randomly selected from each class and compared to a master grading rubric which identifies 5 levels of student performance on the essay: five being the strongest performance, one being the weakest. The rubric, which follows was also shared with the students to insure that they had a clear understanding of what was being asked of them. Assessment results were distributed to all full-time and associate faculty members.

NORTHLAND PIONEER COLLEGE
WRITING ASSESSMENT SCORING RUBRIC

ENGLISH DEPARTMENT

ACCEPTABLE:

5 The writing contains a strong, clear controlling idea specifically addressing the prompt; reveals complexity, variety, and/or freshness; has a beginning, middle, and end; progresses logically; uses smooth cohesive devices (transitions, repetition, pronouns, parallelism); makes a distinction between main and subordinate ideas by using specific details/examples; contains language that is consistently precise and vivid, perhaps even sophisticated; uses clear sentences which vary in structure with no or few grammatical/mechanical errors.

4 The writing contains a clear controlling idea specifically addressing the prompt; reveals some complexity, variety, and/or freshness; has a beginning, middle, and end; generally progresses in a logical manner; uses cohesive devices; makes a distinction between main and subordinate ideas by using some details/examples; contains language that is usually precise and vivid; uses clear sentences which very in structure with a few grammatical/mechanical errors.

3 The writing contains a competent controlling idea with a sense of direction adequately addressing the prompt; has evidence of a beginning, middle, and end; uses some cohesive devices, mostly mechanical; may use some specific details/examples but more general statements in support of main and subordinate ideas; contains language that is inconsistent or uneven; contains clear sentences lacking variety with some grammatical/mechanical errors.

UNACCEPTABLE:

2 The writing contains one or more ideas that address the prompt but none that adequately control direction or development; lacks cohesion but has some evidence of beginning, middle, or end; may tend toward a simple listing of ideas; contains unclear sentences with repeated, distracting sentence structure, language or grammatical/mechanical errors.

1 The writing lacks a controlling idea or only momentarily addresses the prompt; lacks a sense of organization and/or development; digresses and is difficult to follow; contains confusing and serious sentence structure, language, or grammatical/mechanical errors.

Level III Activity: Data analyzed by department leaders/dean.

The assessment data was reviewed by department members and revealed several questions related to student learning and outcomes. These include the awareness that a large number of high school students enrolled in ENL 101/102 as concurrent enrollment were scoring higher on departmental assessments than regularly enrolled students. After analysis, it was concluded that the concurrent enrollment students were taking the classes as "advanced placement" options prior to enrolling at four-year institutions and were generally taking the class five days per week. The regularly enrolled students were not advanced placement students, and were typically attending NPC prior to transfer to senior institutions, but were in need of remedial work. In addition, regularly enrolled students typically attend one class session per week. Many of the regular enrollees are also occupational students who may not hold academic course offerings as their top priority.

Through analysis of the data, what appeared initially to be a potentially serious problem for the department had a reasonable and understandable explanation.

The department also found that it would help students if prompts for ENL 101 and 102 final exams were modified. The department looked at using more general prompts, which were not tied to the "Riverside text" in use at the time. This would allow for better data gathering over time and textbook changes in order to provide a clearer look at teaching/learning outcomes which were not clouded by the medium of textbook/ Internet availability and other resource issues.

Lev I IV Acti *tv: Facul instructional leade s and deans have sed the data to im t rove stude t academic achievement

The department used their findings to identify the need to review the effectiveness of video ENL 101 and 102 classes. This question arose in relation to disparities found in the concurrent ENL 101 and 102, which were discussed above.

Weaknesses in ENL 101 papers were identified as a departmental focus area based on assessment results. The primary concern was related to lack of detail in writing, and student difficulty with the mechanics of writing. The department members were able to reemphasize these items in curriculum and on a class-to-class basis to better assist students.

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Level V Activity: Use of data to improve the assessment process.

Through an "assessment" of the assessment process, the English department looked at the sampling process it used for gathering data. It was agreed that the scoring rubric used as a faculty-scoring guide would be more effective if all faculty scored the same papers. The inter-rater scoring responses of faculty could be improved if the faculty members used the rubric as a focus for what was "good writing" and what was "in need of work" and if they all scored the same sample of papers.

Semester grades of students were considered as a "cross-validation" measure of assessment scores. "If the number of passing grades in a semester is consistent with number of passing assessments, the department can use that fact as validation". If this is in fact not the case, the assessment process will require further refinement.

Finally, it was found that ENL 102 papers reflected the inability of students to put together a strong argument based on prompts. The department made a priority to re-evaluate prompts, to further emphasize focus, supporting details, frameworks and methods of argumentation in the curriculum. The degree to which the "Riverside text" addressed the needs of the ENL 102 students' needs was also a topic for review.

We hope that this discussion of the five levels of assessment activity and their benefits to your programs and departments will encourage you to continue your efforts.

V. TYPES OF ASSESSMENT OPPORTUNITIES

Classroom assessment is the study of the impact of teaching on student learning. Typically, the assessment is done by college faculty periodically by collecting data from students to see what and how they are learning during the semester so that if need be, corrective action may be taken. The data may be classroom tests, or more collaborative interactions between teacher and learner.

There are two primary forms of assessment the first is formative assessment, which is ongoing and diagnostic. It can be used to guide and improve student performance. The minute papers, one sentence summary, portfolio, performance appraisal and the muddiest point discussed next are examples of formative assessment.

Summative assessment is a culminating evaluation for a course and provides a relative level of proficiency or mastery of instructional or learning outcomes. Summative assessment is the form most often used by institutions and individual faculty. It may include final exams, capstone courses, portfolios, applied experiences, case studies or commercially available tools discussed in the second part of this section.

Formative Assessment

Minute Papers: Are probably the best-known technique for simple, in-class student assessment. It is flexible, easy to explain and administer and "it opens a window on students responses to their classroom learning experiences". At the end of selected class periods, faculty asks students to write their answers to two questions. First, what was the most important thing you learned today? And second, what questions remain uppermost in your mind as we conclude this class session? This assessment technique provides data that make it clear whether faculty messages and priorities are being conveyed to students. The message to students is that they must identify major points, integrate and synthesize the lesson of the day and then be prepared to think about the questions raised by the faculty member. (Cross and Angelo, 1988, p. 148)

The One Sentence Summary: Is another technique that is also simple and easy to use. This technique asks the questions, Who Did What to Whom, How, When Where and Why? This literary device is used to find out how completely and creatively students can summarize their understanding of a particular topic within the grammatical constraints of that single sentence (Cross and Angelo, 1988, p. 62).

Portfolio Assessment: Is a purposeful collection of student work, which shows effort, progress or achievement in one or more areas. Portfolios may be specific to a department or to the students' complete general education experience including career goals and interest and ability assessment information. In the case of general education portfolios, student completion and success in institutional goals such as race/gender and ethnic awareness, literacy/ math ability may be tracked. This type of assessment opens opportunities for students to track and evaluate their own progress in reaching personal and educational goals. Several college departments, such as Administrative Information Services are currently using portfolios.

Performance Appraisal: Performance tests ask students to demonstrate proficiency in conducting an experiment, executing a series of steps in a reasonable amount of time, following instructions, creating drawings, manipulating materials or equipment, or reacting to real or simulated situations. Performance tests can be administered individually or in groups. They are not widely used in colleges and universities, as they are logistically difficult to set up and more difficult to score. They can be useful in classes that require students to demonstrate their skills, such as health fields, sciences, education and the performing arts.

The Muddiest Point: The instructor asks students to jot down a quick response to the following question: What was the muddiest point in the lecture, homework assignment, the reading, film, etc. This process provides quick feedback on what students find least clear or confusing. This information can help faculty decide what to emphasize and how much time can be spent on certain topics Students must also quickly assess their grasp of the material and effectively articulate any points of confusion, a complex and useful skill

Summative Assessment

Final Examinations: A standard culminating type assessment of student achievement. Many NPC departments are using these assessments to not only assess student outcomes, but to validate and optimize teaching methods. This is being done by identifying student outcomes in relation to course and college objectives (criterion referenced instruction). Examination questions are being linked directly to course learning objectives.

Capstone Courses: Typically a department specific course or project which requires the integration and application of specific tools, techniques, knowledge, resources and attitudes associated with an entire sequence of courses within a program such as Legal Assistant or Administration of Criminal Justice.

Commercially Available Assessments: Such as the " College Outcome Measures Program" (COMP), "Collegiate Assessment of Academic Proficiency" (CAAP) and "The Academic Profile" are useful in measuring student acquisition of general education learning. They also provide cross-validation of faculty developed assessments and are norm referenced, so that an institution may compare the results of its' students with those of other institutions. The tools highlighted here do not need to be given as pre/post tests due to reasonable levels of validity and reliability. Drawbacks are that they are expensive to administer and score, often-times it is difficult to get students to take the assessments and it can take a long time to develop "local norms" for the institution to make valid assumptions with the results.

Longitudinal Student Studies: Such as review of student records in subsequent, related courses. An example: review of randomly selected student's success in English 101 and or English 102 after completing developmental education courses through "The Learning Cornerstone".

VI. ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT REPORT (DUE DATE APRIL 9, 2004)

DEPARTMENT: _____

MISSION: (Circle One) General Education, Transfer Preparation, Employability, Developmental Education, Customized Education (Economic Development), or Personal Interest.

There are currently five levels of assessment that are possible within each department. These levels are related to development of the department assessment data gathering techniques and use of the information to fine-tune courses as necessary.

Department Activity Level Checklist

Level I: The department assessment processes have been detailed and developed for use by faculty.	Yes No Attach copies of instruments used, instructions for students, time frames for activities, etc.
Level H: Data collection has been implemented.	Yes No Attach copies of grading rubrics, analysis of test questions and overall findings.
Level HI: Faculty, instructional leaders, and deans have analyzed the data.	Yes No Attach copies of conclusions reached by the assessment team.
Level IV: Faculty, instructional leaders, and deans have used the data to improve student academic achievement.	Yes No Attach highlights related to curriculum and/or assessment changes which were implemented through this process such as revision of study guides, exams, changes in grading rubrics.
Level V: Data has been used to improve the assessment process.	Yes No Attach highlights related to improvements and/or streamlining the assessment process.

_____ _____

Assessment Chair's Signature Date

_____ _____

Dean's Signature Date

VII. GLOSSARY OF ASSESSMENT TERMS

This glossary of commonly used assessment terms is provided to faculty and staff involved in the assessment of student academic achievement. It is from an article by Melodye S Wiens, English Instructor at Spokane Community College, Spokane, Washington.* We hope this will be helpful in your assessment activities. Please let your CASSAA representatives know if we can add to or modify this listing for ease of use.

*Note: From "A is for Assessment and Accountability", Melodye S. Weins, 1998, Research in Developmental Education, 15(2), 1-6. Copyright 1998 by the National Center for Developmental Education, Appalachian State University. Reprinted with permission. Article follows.

> From state legislators to school administrators to the public at large, everyone is clamoring for tangible evidence of what students know and can do as a result of the time they spend in our learning environments. Before we can satisfy that request, however, we must agree on the vocabulary we will use to communicate about the methods and results of assessment.
>
> This glossary collects and clarifies, using straightforward terminology, the words educators are using to discuss assessment. It includes words used in a wide variety of learning communities, including K-12 and postsecondary settings.
>
> It is a challenge to ferret out fine distinctions between similar terms and to determine which words and definitions work best. A few educators may balk at the connotations that some of these terms and their definitions evoke. Also, some readers may be surprised to find words that relate specifically to instruction and instructional design. Each of the words included is considered integral to discussions about the overall assessment process and, as such, seem appropriate for placement in this glossary of assessment terms. It's a fast-changing field, however, and many of these definitions will need adjustments as the language and practice of assessment continues to evolve.

Glossary of Assessment Terms

Abilities: Skills needed for effectiveness in the worlds of work, family, and civic community. The distinctive feature of an ability-based approach is that educators make explicit the expectation that students should be able to do something with what they know (Alverno College, 1998).

Accommodation: Any variation in the assessment environment or process. Accommodations include variations in scheduling, setting, aides and equipment, and presentation format. These variations should not change the level, content, or performance criteria and should not change the reliability and validity of the assessment. Accommodations are made in order to provide students with the opportunity to demonstrate what they know (Washington Commission on Student Learning, 1997, p.1).

Accountability: Accountability systems provide information that tells policymakers, the public, and others how well the education system—classrooms, schools, and districts—is doing. Information typically includes student assessment data and indicators such as dropout and graduation rates. Accountability information can be used in different ways: to provide information to the public, to help all the groups involved reach agreement on how to improve the system, or to provide rewards or sanctions for success or failure (Education Commission of the States, 1998, p.36).

Accreditation: The review processes a school or district undergoes periodically to ensure that it meets state requirements and quality measures. The process usually involves the review of a district's or school's evaluation procedures and improvement plans; the effectiveness of education programs and services; and other policies, practices, and management processes. Recently, some states began using accreditation as a performance-based process focused on student achievement and school-improvement planning (Education Commission of the States, 1998, p.36).

Affective Objective: A statement specifying the acquisition of particular attitudes, values, or feelings. Deals with affective domain; also called "attitudinal objectives" (Piskurich, 1993, p.29.20). *Also see:* Dispositions.

Alignment: The process of linking content and performance standards to assessment, curriculum, and teaching and learning in classrooms (Washington Commission on Student Learning, 1997, p.1).

Alternative Assessment: Any type of assessment in which students *create* a response to a question or task. In traditional assessments, students *choose* a response from a given list, such as multiple-choice, true/false, or matching. Alternative assessments can include short-answer questions, essays, performance assessments, oral presentations, demonstrations, exhibitions, and portfolios (Bond, Friedman, & van der Ploeg, 1994, p.39). See also Authentic Assessment *and* Performance Assessment.

Analytical Trait Scoring: Judging a performance several times along different important dimensions. An example might be the judging of a piece of persuasive writing for the author's attention to audience, correct use of grammar and punctuation, focus on the topic, and persuasiveness of argument. (Bond, Friedman, & van der Ploeg, 1994, p.39). *Also see* Primary Trait Analysis.

Anchor Performances: Examples of student performance that serve as a standard against which other papers or performances may be judged. They are often used as examples of performances at different points on a scoring rubric for a particular grade [or course] level. In math problem solving, for example, anchor performances are selected from actual student work that is considered to exemplify the quality performance level of "1," "2," "3," and so forth. If used with analytical scoring, there may be anchor or benchmark performances for each trait being assessed. The top anchor is sometimes called the exemplar (adapted from Bond, Friedman, & van der Ploeg, 1994, p.39).

Assessment: 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 (Angelo. 1995, p.7). *Also see* Student Learning Assessment.

Assessment Literacy: Possessing knowledge about the basic principles of sound assessment practice, including terminology, the development and use of assessment methodologies and techniques, and familiarity with standards of quality in assessment (Washington Commission on Student Learning, 1997, p.1).

Attributes: Specific performances that provide evidence of a student's competency in meeting an outcome or objective.

Audience: Learners for whom an objective is intended (Piskurich, 1993, p.23.7). *Also see* Learner.

Authentic Assessment: Assessment that both mirrors and measures student performance in "real-world" tasks and situations. For example, to assess authentically a student's ability to problem solve, the student is given a real-world problem and assessed on how he or she goes about solving it (Bond, Friedman, & van der Ploeg, 1994, p. 39). *Also see* **Alternative Assessment** and **Performance Assessment.**

Behavioral Objective: *See* **Instructional Objective** *and* **Learning Objective.**

Benchmarks: The designated points at which a student's performance may be assessed. Can be according to age, grade, or developmental levels. In addition, benchmarks define the accumulation of learning within a period of time (Maryland Assessment Consortium, 1993, p. 1; Washington Commission on Student Learning, 1997, p.1).

Bias: An inclination or preference, especially one that interferes with impartial judgement (Washington Commission on Student Learning, 1997, p.1).

Capstone Assessment: A summative assessment project that requires integration and application of the specific tools, techniques, knowledge, resources, and attitudes associated with the entire sequence of study in a program or course.

Checklists: Lists of characteristics, skills, or behaviors. Checklists are used to guide evaluation of student performances by noting the presence or absence of any given characteristic or behavior (Washington Commission on Student Learning, 1997, p.1).

Cognitive Objective: A statement specifying the acquisition of particular knowledge or information dealing with the cognitive domain (Piskurich, 1993, p.29.21).

College Level: The level of skill attainment, reasoning ability, and so forth, associated with/required by courses of study designed to lead to a baccalaureate degree. Also known as "transfer level" in programs of a two-year institution (College Reading and Learning Association, 1990, p.4). *Also see* **Developmental** *and* **Remedial.**

Competence: The individual's demonstrated capacity to perform, that is, the possession of knowledge, skills, and personal characteristics needed to satisfy the special demands or requirements of a particular situation (Washington Commission on Student Learning, 1997, p.1).

Comprehension: Constructing meaning from text or other instructional methods and media.

Comprehensive Assessment System: A comprehensive assessment program provided for all important educational decisions relating to learning, instruction, program improvement, and public accountability (Washington Commission on Student Learning, 1997, p.1).

Conditions: One of the three required parts of a learning objective that describes the circumstances under which the performance or outcome of learning will be observed or measured. The whom, what, where, and with what the performance can be accomplished (Piskurich, 1993, p.29.21).

Content Standards: Statements that define what students should know and be able to do in various subject areas and at different points in their education (Education Commission of the States, 1998, p.36).

Context (of a Performance Assessment): The circumstances within which the performance is embedded. Problem solving can be assessed in the context of a specific subject (for example, mathematics) or in the context of a real-life situation (Bond, Friedman, & van der Ploeg, 1994, p.39).

Course Description: A document that defines the why, where, when, how, for whom, and by whom a specific course will be given. It includes the course goal(s), objectives, and a course calendar (Piskurich, 1993, p.29.21). Sometimes called a "syllabus."

Course Goal: A general statement that outlines what the student is to learn, in broad terms (not in measurable or behavioral terms) in a course (Piskurich, 1993, p.29.21).

Course Map: A document that outlines a course and shows the various relationships between the lessons and modules, usually in the form of a diagram or flowchart (Piskurich, 1993, p.29.21). *Also see* Curriculum Framework *and* Plan of Instruction.

Course Objectives: The actions, knowledge, and skills the learner is expected to have acquired at the end of a sequence of instruction (Piskurich, 1993, p.29.21). Sometimes referred to as Terminal Objectives.

Criteria: One of the three required parts of a learning objective that states the minimum competency or performance level that the student must attain by the end of training for proficiency in the performance. Defines how well the student must perform the skills (adapted from Piskurich, 1993). *Also see* Performance Criteria.

Criterion-referenced Assessment: An assessment designed to reveal what a student knows, understands, or can do in relation to specific performance objectives. Criterion-referenced assessments are used to identify student strengths and weaknesses with regard to specific knowledge or skills that are goals of the instructional program (Bond, Friedman, & van der Ploeg, 1994, p.40).

Criterion-referenced Instruction: Training or instruction designed around the mastery of established instructional objectives. It is usually performance- and skills-oriented, based on the criteria of the objectives (Piskurich, 1993, p.29.21).

Criterion-referenced Test: An assessment designed to provide a clear picture of what a student knows and can do. It measures performance against an established criterion or standard, rather than in comparison to a norm group (Education Commission of the States, 1998, p.36). *Also see* Criterion-referenced Assessment.

Curriculum Framework: An organized plan that defines content to be learned in terms of the general categories of skills, knowledge, and processes. Frameworks may be developed by content areas or [by] some other organizing principle (Bond, Friedman, & van der Ploeg, 1994). *Also see* Course Map *and* Plan of Instruction.

Developmental: In the norma.Uexpected sequence of learning. Usually used in counterdistinction to accelerated and/or remedial learning...Use of the term in college education assumes/takes cognizance of the notion that there is a gap that needs to be filled in for many students. The claim is, thus, that these students need to learn skills that they have not previously been taught (in high school) and that the fault is not with their ability, but with their preparation... [Also] Instruction designed to improve a student's competencies in the basic skills and allow increased mastery over the student's environment to facilitate effective learning and communication (College Reading and Learning Association, 1990, p.5). *Also see* College Level *and* Remedial.

Dispositions: Affective outcomes such as responsibility, flexibility, perseverance, self-confidence, and a positive attitude. Some new assessments attempt to measure these outcomes (Bond, Friedman, & van der Ploeg, 1994, p.40).

Enabling Objective: A performance objective describing a skill or competence that is an essential element of a larger or more complex competence. Sometimes called "Subordinate Objective" or "En Route Objective" (Piskurich, 1993, p.29.22). *Also see* **Learning Objective.**

Enhanced Multiple Choice: An enhanced multiple-choice item gives the student an opportunity to add something to the multiple-choice response. The student may add a reason why the item was chosen, an extension of the information, supporting evidence, or any other enhancement that helps the examiner better understand the student's response choice (Washington Commission on Student Learning, 1997, p.2).

Entry Evaluation: A specialized form of evaluation given to students at the beginning of the_course that helps to determine the skills with which they are coming into the course. Also used to determine the emphasis and direction that the course will take. May be in the form of a pretest that indicates the knowledge and/or skills of the student prior to taking the course while defining the core competencies required of the student at the end of the course (adapted from Piskurich, 1993). *Also see* **Pretest.**

Essay Test: A test that requires the students to answer questions in writing is an essay test. Responses can be brief or extensive. The essay test usually measures knowledge as well as the ability to apply knowledge of a subject to questions about the subject (Washington Commission on Student Learning, 1997, p.2).

Evaluation: The act of using assessment information to make decisions, choices, or judgements based on criteria and evidence. Also refers to the basis and methods by which data are collected and analyzed to revise and improve overall performance (adapted from Piskurich, 1993; Washington Commission on Student Learning, 1997).

Evaluation of the Student: The collecting and reviewing of data about the student before, during, and after a course. Used to determine weak areas in a course and to improve the instruction. Can include entry evaluations, performance testing, and written tests.

Exemplar: A model of excellence (Washington Commission on Student Learning, 1997, p.2). *Also see* **Anchor Performances.**

Exhibition: A method of student assessment that requires students to demonstrate what they know and can do, as an alternative to traditional paper-pencil tests. Exhibitions may take many forms, including class presentations, speeches, readings, demonstrations, and artistic performances. Teachers often videotape exhibitions for later review and as a record of student progress (Washington Commission on Student Learning, 1997, p.2).

Formative Assessment: Ongoing diagnostic assessment that provides information to guide instruction and improve student performance (Maryland Assessment Consortium, 1993, p.2). *Also see* **Summative Assessment.**

Goal: An intended outcome not stated in measurable terms. A general statement of intent; an expression of the desires and expectations of the developers and/or consumers of an educational program (Piskurich, 1993, p.29.22).

Holistic Scoring: Assigning a single score based on an overall assessment of performance rather than by scoring or analyzing dimensions individually. The product is considered to be more important that the sum of its parts, and so the quality of a final product might combine a number of elements on a single scale (Washington Commission on Student Learning, 1997, p.2).

Indicator: A learner behavior or action toward accomplishing an essential learning requirement. A cluster of indicators forms the basis for development of performance tasks that may be used for [student learning] assessment (Washington Commission on Student Learning, 1997, p.2).

Instructional Objective: A precise statement indicating the performance expected of a learner in terms of specific skills and concepts as a result of exposure to instructional material. The objective may include components that indicate what the learner should be able to do (performance), under what conditions (conditions), and at what level of competence (criteria). Instructional objectives address cognitive (knowledge) skills, affective (attitude) skills, and psychomotor (manual) skills at all levels (Piskurich, 1993, p.29.22). *Also see* **Behavioral Objective, Learning Objective,** *and* **Performance Objective.**

Integration: Work that does not stand alone but is interrelated and connected. Refers to tasks that assess students' abilities to apply concepts, principles, and processes from two or more subject disciplines or course outcomes to a central question, theme, issue, or problem (Washington Commission on Student Learning, 1997, p.2).

Item: A question or statement that poses a problem for a student. Typical test item types include multiple-choice, true/false, matching sets, short-answer items, and completion items. Short-answer items require students to furnish anything from words to a few sentences. Completion items (also called "fill in the blank" items) require students to supply a word to complete a sentence (Washington Commission on Student Learning, 1997, p.2).

Learner: Any individual engaged in acquiring new skills, attitudes, or knowledge whether with a specified sequence of instruction or a random assortment of stimuli (Piskurich, 1993, p.29.23).

Learning: Any change in [the learner's] knowledge, skill, or value system. Change can only be judged by assessment or evaluation (Cranton, 1989, p.136).

Learning Objective: The component actions, knowledge, and skills a student must learn to attain the course (terminal) objective(s). The objective may include components that indicate what the learner should be able to do (performance), under what condition (conditions), and at what level of competence (criteria). Learning objectives represent the leaning difference between where the learner is now and where one wants them to be. Also referred to as "Enabling Objectives" (Piskurich, 1993, p.29.23). *Also see* **Behavioral Objective, Instructional Objective,** *and* **Performance Objective.**

Lesson: Any block of learning designed around a specific skill. It may be made up of a number of modules (Piskurich, 1993, p.29.23).

Lesson Objective: The Primary or Terminal Objective for any lesson (Piskurich, 1993, p.29.23).

Lesson Plan: An outline of important points of a lesson arranged in the order in which they are to be presented, including: (a) activities of the student and instructor, (b) specific points to be made, and (c) resources to be used [and] when and how to use them. The lesson plan should be detailed enough so that instructors with similar backgrounds can conduct the same course with a minimum of preparation (Piskurich, 1993, p.29.23).

Longitudinal Data: Data collected from the same cohort of students over time. Longitudinal data can take into account statistical determinants of achievement such as socioeconomic status and family background and are [suitable for] determining "value added" by a teacher or school (Education Commission of the States, 1998, p.36).

Major Course Objective: An objective that defines the expected outcome of a complete course. Sometimes called the **Terminal Objective** or **Outcome** for the course (Piskurich, 1993, p.29.23).

Mastery Learning: An instructional learning theory based on the premise that, given time and appropriate instruction, all students can learn well. Time is the critical variable among students, and learning **is** the constant.

Matrix sampling: Giving a portion of the assessment to different, representative samples of students so that no student need take the entire assessment. The scores that are obtained are group rather than individual scores, and [they] are often used to look at the performance of a school or school district (Bond, Friedman, & van der Ploeg, 1994, p.40).

Metacognition: The ability to think about one's own thinking and affective responses.

Modification: An alteration of the assessment content or the assessment instrument. Modifications affect the reliability and validity of the assessment (Washington Commission on Student Learning, 1997, p.2).

Module: A unit of instruction, usually designed for the achievement of one learning objective. A lesson may be made up of a number of modules (Piskurich, 1993, p.29.24).

Norm-referenced Assessment: An assessment designed to reveal how an individual student's performance or test result ranks or compares to that of an appropriate peer group. More generally, it has come to refer to comparisons of performance among students, schools, districts, or states. Also called "Norm-referenced test" (Bond, Friedman, & van der Ploeg, 1994, p. 40; Education Commission of the States, 1998, p.36).

Objective: Intent communicated by a statement describing a proposed change in the learner (Piskurich, 1993, p.29.24). *Also see* **Outcomes.**

On-demand Assessment: Assessment that takes place at a predetermined time and place. State tests, SATs, and most final exams are examples of on-demand assessments (Bond, Friedman, & van der Ploeg, 1994, p.40).

Open-ended Task: The kind of performance required of students when they must generate a solution to a problem or perform a task when there is no, single right answer (Bond, Friedman, & van der Ploeg, 1994, p.40). *Also see* **Open-response Task** *and* **Selected-response Task.**

Open-response Task: The kind of performance required of students when they are required to generate and answer, rather than select it from among several possible answers, but there is a single, correct response (Bond, Friedman, & van der Ploeg, 1994, p. 40). *Also see* **Open-ended Task** *and* **Selected-Response Task.**

Outcomes: "Outcomes" is shorthand for "Intended Outcomes of Instruction." Outcomes are operationally defined (measurable) educational goal statements for students, schools, and school systems. To operationalize outcomes, there must be agreement on the specific "standards and measures": the tasks, criteria, and standards by which the outcomes will be assessed (Washington Commission on Student Learning, 1997).

Performance: One of the three required parts of a learning objective that describes the task, activity, or attitude that a student must exhibit. It is an observable behavior (adapted from Piskurich, 1993).

Performance Assessment: Direct, systematic observation of an actual student performance or examples of student performance and rating of the performance according to preestablished performance criteria. Such assessments are related to the performance of an educational objective (Bond, Friedman, & van der Ploeg, 1994, p.40). *Also see* Authentic Assessment *and* Alternative Assessment.

Performance Criteria: A description of the characteristics that will be judged for a task Performance criteria may be holistic, analytical trait, general, or specific. Performance criteria are expressed as a rubric or scoring guide. Anchor papers or benchmark performances may be used to identify each level of competency in the rubric or scoring guide (Bond, Friedman, & van der Ploeg, 1997, p.41). *Also see* Competence *and* Criteria.

Performance Standards: Explicit definitions and concrete examples of how well students are expected to learn the material represented by content standards. Performance "levels" also may be used to define students' demonstrated proficiency at various points as they progress toward a standard (Education Commission of the States, 1998, p.36). *Also see* Benchmark *and* Anchor Performances.

Performance Task: A performance task gives the student the opportunity to illustrate, perform, or demonstrate what he or she knows and can do (Education Commission of the States, 1998, p.36). *Also see* Task.

Plan of Instruction: A document that outlines a course, broken down into lessons and modules. It includes the lesson objective, presentation plan, resources, and an indicator of how the student will be tested (Piskurich, 1993, p.29.24). *Also see* Course Map *and* Curriculum Framework.

Portfolio: A purposeful collection of student work showing effort, progress, or achievement in one or more areas. The usefulness (for assessment and instruction) of any portfolio is enhanced by performance criteria, student involvement, and student self-reflection (Washington Commission on Student Learning, 1997, p.3). *Also see* Portfolio Assessment.

Portfolio Assessment: Portfolios can be assessed in a variety of ways. Each piece may be individually scored, or the portfolio might be assessed merely for the presence of required pieces, or a holistic scoring process might be used and an evaluation make on the basis of an overall impression of the student's collected work. It is common that assessors work together to establish consensus of standards or ensure greater reliability in evaluation of student work. Established criteria are often used by reviewers and students involved in the process of evaluating [the learning] process and [the] achievement of [learning] objectives (Washington Commission on Student Learning, 1997, p.3). *Also see* Portfolio.

Post-test: An evaluation of students done at the conclusion of instruction to determine if a student has achieved the course objectives (Piskurich, 1993, p.29.24). *Also see* Pretest:

Pre-test: An evaluation of students prior to instruction to determine what level of knowledge, skill, or aptitude they are bringing to instruction (Piskurich, 1993, p.29.24.). *Also see* Entry Evaluation.

Primary Trait Analysis: An explicit and systematic identification of those "traits" necessary for demonstration of competence on an assignment or in a course. Rubrics and other scoring instruments are established to reflect the relative significance of those traits. Under each trait, the instructor composes a 3- to 5-point rating scale. Students are awarded scores for each trait and given a composite score with the primary traits weighted (adapted from Walvoord & McCarthy, 1990). *Also see* Analytical Trait Scoring.

Problem-based Learning: Learning that is centered around a problem, a query, or a puzzle that the learner has to solve. An approach to curriculum which is problem centered rather than discipline centered (Boud, 1985, p.13).

Problem Solving: Behaviors used by a learner to solve problems, answer questions, or solve a puzzle (Boud, 1985).

Prompt: An assignment or directions asking the student to undertake a task or a series of tasks. A prompt presents the context of the situations, the problem to be solved, and criteria or standards by which responses will be evaluated (Maryland Assessment Consortium, 1993, p.6). *Also see* Task.

Rating Scale: A scale based on descriptive words or phrases that indicate performance. Qualities of a performance are described (e.g., advanced, intermediate, novice) in order to designate a level of achievement. The scale may be used with rubrics or descriptions of each level of performance (Washington Commission on Student Learning, 1997, p.3). *Also see* Criteria, Rubric, *and* Scale.

Reliability: Reliability is the measure of consistency for an assessment instrument. The instrument should yield similar results over time with similar populations in similar circumstances (Washington Commission on Student Learning, 1997, p.3).

Remedial: Instruction designed to remove a student's deficiencies in the basic entry or exit level skills at a prescribed level of proficiency in order to make him or her competitive with peers. Comments: The assumption is that students have already been taught (or at least been exposed to learning), but that the teaching was not effective and must be repeated (College Reading and Learning Association, 1990, p.11). *Also see* Developmental *and* College Level.

Rubric: An established set of criteria for scoring or rating students' performance on tests, portfolios, writing samples, or other performance tasks (Bond, Friedman, & van der Ploeg, 1994, p.41). *Also see* Rating Scale.

Scale: The range of scores possible for the student to achieve on a test or an assessment. Performance assessments typically use a 4- to 6-point scale, compared to a scale of 100 or more with traditional multiple-choice tests (Bond, Friedman, & van der Ploeg, 1994, p.41). *Also see* Rating Scale.

Scoring Criteria: Rules for assigning a score or rating a student's performance on tests, portfolios, writing samples, or other performance tasks. Scoring criteria may include rating scales, checklists, answer keys, and other scoring tools (Washington Commission on Student Learning, 1997, p.3). *Also see* Criteria.

Scoring Guide: A package of guidelines intended for people scoring performance assessments. May include instructions for raters, notes on training raters, rating scales, and samples of student work exemplifying various levels of performance (Washington Commission on Student Learning, 1997, p.3).

Selected Response Task: Selected response tasks are those that give the student choice and the student must select a response. These include multiple-choice, true/false, and matching items. The index of achievement is the number or proportion of questions answered correctly (Washington Commission on Student Learning, 1997, p.3). *Also see* Open-ended Task *and* Open-response Task.

Self-assessment: The process of doing a systematic review of one's own performance, usually for the purpose of improving future performance. Such assessment may involve comparison with a standard, established criterion. Self-assessment may involve critiquing one's own work or may be a simple description of one's performance (Washington Commission on Student Learning, 1997, p.3).

Skill: Any behavior or set of observable behaviors; an overt performance as opposed to covert behavior. A subset of a task (Piskurich, 1993, p.29.24).

Stakes: The consequences tied to performance on an assessment or test. A "low-stakes" test has few or no consequences tied to results; a "high-stakes" test has consequences related to performance. Stakes can include rewards for high performance, sanctions for low performance, promotion, or graduation. The rank-ordering of schools or districts when test results are publicly reported can be considered "high stakes" (Education Commission of the States, 1998, p.36-37).

Standard: Defines what level of skill students must demonstrate on the learning outcomes (Bond, Friedman, & van der Ploeg, 1994, p.41).

Standardized Assessments: Assessments that are administered and scored in exactly the same way for all students. Traditional standardized tests are typically mass-produced and machine-scored and are designed to measure skills and knowledge that are thought to be taught to all students in a fairly standardized way. However, performance assessments can also be standardized if they are administered and scored the same way for all students. Standardization is an important consideration if comparisons are to be made between scores. Standardized tests may produce norm-referenced or criterion-referenced information. Also called "Standardized Tests" (Bond, Friedman, & van der Ploeg, 1994, p.4.1).

Student Learning Assessment: The measurement of what a student knows and is able to do, usually expressed in terms of progress toward a standard or mastery of a standard. Assessment can include diverse measures, such as multiple-choice tests, constructed-response exercises, performance measures, and portfolios.

Summative Assessment: Culminating evaluation for a unit, grade level, or course of study. Provides a status report on mastery or degree of proficiency according to identified instructional or learning outcomes (Maryland Assessment Consortium, 1993, p.7). ***Also see*** Formative Assessment.

Task: Anything from a discrete multiple-choice or short-answer item to a complex project requiring students to use many different types of learning to solve a problem, investigate a solution, write a story, or do any other real-world task. The task is whole; within a task may be several dependent items (Washington Commission on Student Learning, 1997, p.4). ***Also see*** Performance Task.

Terminal Objectives: The action, knowledge, or skills the learner is expected to have acquired at the end of instruction (Piskurich, 1993, p.29.25). ***Also see*** Course Objectives, Major Course Objectives, ***and*** Outcomes.

Test: A set of questions, a situation, or a task designed to permit an inference about what a learner knows in an area of interest (Maryland Assessment Consortium, 1993, p.7).

Thinking Skills. Thinking skills include thinking analytically, logically, and creatively to form reasoned judgements and solve problems (Washington Commission on Student Learning, 1997, p.4).

Understanding: In an assessment context, this is the demonstrated capacity to apply facts, concepts, and skills in new situations in appropriate ways.

Validity: The extent to which the assessment measures the desired performance and appropriate inferences can be drawn from the results. A valid assessment accurately reflects the learning it was designed to measure. For example, a valid assessment of mathematics problem solving would be to measure the student's ability to solve a problem and not the ability to read the problem (Bond, Frideman, & van der Ploeg. 1994).

Value Added: The amount of student achievement "contributed" by a teacher or a school during a school year or other set period of time. A school's contribution to students' achievement is the "value added" by the school. How much a school adds to students' learning can be calculated by assessing the differences in fall-to-spring (or fall-to-fall or spring-to-spring) testing of the same students (Education Commission of the States, 1998, p.3'7).

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Acknowledgement

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VIII. Library Resources and Bibliography

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A Practitioner 's Handbook for Institutional Effectiveness and Student Outcomes Assessment Implementation by James 0. Nichols. Agathon Press; 1991

The Departmental Guide and Record Book for Student Outcomes Assessment and Institutional Effectiveness by James 0. Nichols. Agathon Press; 1995

The Departmental Guide to Implementation of Student Outcomes Assessment and Institutional Effectiveness by James 0. Nichols. Agathon Press; 1991

A National Review of Scholastic Achievement in General Education: How Are We Doing and Why Should We Care? By Steven J. Osterlind. The George Washington University; 1997

Student Assessment-as-Learning at Alverno College by the Alverno College Faculty. Alverno College Institute; 1994

Reporting the Results of Assessment by Dr. William L. Hooper for North Central Association Colleges of Schools; April 1997

Assessment Techniques 1997 by the University Assessment Committee of North Dakota State University, Fargo, North Dakota; February 1997

Assessment 101 Workbook by Dr. Michael K. Smith & Dr. Jama L. Bradley. 1995

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