

# TRIBAL COLLEGES AND UNIVERSITIES

A D V A N C I N G   N A T I V E   K N O W L E D G E

American Indian Higher Education Consortium (AIHEC)

## Assessment Essentials for Tribal Colleges

July 22, 2010

Prepared for AIHEC by Anne Marie Karlberg

To improve student learning and demonstrate accountability to our communities and accreditation bodies, the foundation of assessment at Tribal Colleges and Universities must be grounded within our unique tribal cultures and traditions.



# Assessment Essentials for Tribal Colleges

Prepared for

AMERICAN INDIAN HIGHER EDUCATION CONSORTIUM

by

ANNE MARIE KARLBERG

July 22, 2010



*Assessment Essentials for Tribal Colleges* is second in a series of monographs advancing Native knowledge in Tribal Colleges and Universities.



## Introduction

---

Assessment is a powerful tool that can help tribal colleges better serve their communities and accomplish their missions. More specifically, assessment is a systematic process of gathering, interpreting, and using information regarding student performance and perceptions to improve student learning and advance a college's mission. Although many tribal colleges struggle with their assessment programs and efforts, Indigenous educators increasingly recognize assessment as a priority for internal improvement as well as for accreditation purposes (Blanchard et al., 2000; Ortiz & HeavyRunner, 2003; L. Smith, 1999; Swisher & Tippeconnic, 1999). Tribal colleges have substantial motivation to succeed in their assessment efforts, in large part because of their unique missions and focus on the self-determination of Native people.

Assessment at tribal colleges can be done in context in a culturally respectful, relevant, and meaningful way. Effective tribal college assessment programs use three types of information to assess student learning—direct indicators, indirect indicators, and institutional data—and assess each of these at the college, program, and course levels. They also pay attention to resources invested into the assessment program and to how the assessment program is planned and carried out (see resources in Appendix A and in the References).

With the new emphasis on learning outcomes, tribal colleges have an opportunity to redefine their own measures of success, along with their own curricular and pedagogical values and approaches, in more culturally appropriate ways. Articulating or refining the tribal college's mission is often a critical first step in this process. By using their mission statements to set and guide standards of measuring success, tribal colleges can use assessment programs to pursue their missions; build local capacity; and advance processes of self-empowerment, self-determination and the decolonization of Native peoples.



---

## Contents

<b>Definition of Assessment</b>	<b>1</b>
<b>Primary Purposes of Assessment</b>	<b>2</b>
<b>Accreditation Issues</b>	<b>4</b>
<b>Effective Tribal College Assessment Programs</b>	<b>7</b>
Inputs	7
Plans and Strategies	7
Resources	8
Processes	9
Assessment Process	10
Embedding Assessment in College Processes	11
Learning, Teaching, and Assessment Approaches	12
Products	12
Direct Indicators of Student Learning	14
College Outcomes	15
Program Outcomes	18
Course Outcomes	20
Indirect Indicators of Student Learning	22
Institutional Data	24
Overview of Components of a Tribal College Assessment Program	26
<b>Documentation and “Closing the Loop”</b>	<b>27</b>
The Assessment Plan	27
The Assessment Report	28
Feedback of Assessment Results	30
<b>Emerging Innovative Approaches to Assessment</b>	<b>31</b>
Assessment as Learning	31
Classroom Assessment Techniques	33
Conventional Versus Authentic Assessment Tools	34
<b>Concluding Comments</b>	<b>36</b>
<b>Glossary</b>	<b>37</b>
<b>Appendix A: Additional Resources</b>	<b>40</b>
<b>Appendix B: A Written Communication Rubric</b>	<b>41</b>

<u>Appendix C: A Curriculum Map for College Outcomes</u>	<u>43</u>
<u>Appendix D: Grades, Assessment, and Rubrics</u>	<u>44</u>
<u>Appendix E: Components of a Tribal College Assessment Program</u>	<u>48</u>
<u>Appendix F: A College Outcomes Assessment Plan</u>	<u>49</u>
<u>Appendix G: A College Outcomes Assessment Report</u>	<u>50</u>
<u>Appendix H: Alaska Standards for Culturally Responsive Schools</u>	<u>52</u>
<u>References</u>	<u>56</u>

---

## Definition of Assessment

Assessment is “the systematic collection of information about student learning, using the time, knowledge, expertise, and resources available in order to inform decisions about how to improve learning” (Barbara Walvoord, 2004, p. 2). As it is an evolving concept in education, authors sometimes refer to assessment as **student outcomes assessment**, **educational outcomes assessment**, and **institutional assessment**.

Assessment can be thought of as **action research**, a scholarly endeavor used “to inform local action” (Barbara Walvoord, 2004, p. 2). Further,

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 (Angelo, 1995, p. 7).

Assessment is not about evaluating individual student performance; rather, it is about evaluating the overall achievement of a group of students to provide feedback to students, faculty, parents, the college, policy makers, and the public about the educational program’s effectiveness and how it might be refined in the future.

## Primary Purposes of Assessment

---

Assessment—an ever-evolving, dynamic process—can be adapted to the needs of the tribal college culture. The primary purpose of assessment in higher education is to improve student learning. Its secondary purpose is to demonstrate accountability to accreditation bodies and other stakeholders. In addition, when done well, the benefits of assessment include

- clarifying and strengthening the mission of a tribal college;
- providing opportunities to create a shared vision for the future of the tribal college, based on common values;
- redirecting resources towards priorities outlined in the mission and goals;
- increasing the college's responsiveness to the needs of the community;
- building cohesion, collaboration, relationships, and trust among faculty, staff, administrators, students, and tribal community members;
- initiating meaningful conversations at all levels within a college;
- re-valuing teaching, service, and students;
- improving program quality and performance, the instructional capacity of the college, as well as its public image;
- informing planning, decision making, and budgeting decisions;
- increasing the community's and the students' confidence in the college;
- supporting requests for funding;
- assisting in meeting and exceeding accreditation requirements.

Assessment data can be used to improve everything from curriculum and course content, pedagogy, assessment tools, internships, and faculty-student interactions, to facilities, course staffing and scheduling, class size, inclusion of students in faculty research, and student advising (Bresciani, 2002; Diaz-Lefebvre, 2003; Green & Castelli, 2002; Lieberman, 2005; Pellegrino, et al., 2001; Seybert, 2003; Barbara Walvoord, 2004).



## Primary Purposes of Assessment

### 1 To Improve Student Learning

At its best, the process of assessment cultivates excellence in all aspects of higher education. High quality assessment emphasizes evaluation and reflection—involving students, faculty, staff, administrators, and tribal community members—at the college, program, and course levels and it results in a continuous and incremental improvement of learning and teaching. Although external accountability pressures created the initial need for evidence that institutions of higher education were accomplishing their goals, progressive colleges have since worked to channel these pressures into meaningful and constructive assessment programs by defining the assessment process in their own terms. For instance, Alverno College in Milwaukee (see [www.Alverno.edu](http://www.Alverno.edu)) has pioneered strong and innovative assessment programs precisely because they provide an effective means for pursuing educational excellence (Mentkowski, Rogers, Doherty, & Loacker, 2000). Thus, assessment programs can be used to stimulate improvements in learning and teaching, while simultaneously demonstrating accountability commitments to the wider tribal community.

### 2 To Demonstrate Accountability

Initially, assessment was narrowly focused and intent on demonstrating accountability (i.e., the responsible use of limited resources). Accountability refers to evaluations reported to the tribal community, funding sources, and accreditation bodies about the use of educational resources—and it facilitates decision-making. Though assessment programs can address accountability concerns, they are broader in their scope and purpose. As public stakeholders, legislators, accreditation bodies, funding agencies, parents, and students began scrutinizing higher education in recent decades, they started demanding more financial efficiency and accountability, along with a more competency-based approach to education. This included a change in focus from instructor-centered teaching to student-centered learning. Due to concerns about the quality of higher education, colleges must demonstrate value-added benefits for individual students as well as for surrounding communities and students' potential employers (Banta, 1999; Lieberman, 2005).

## Accreditation Issues

Now that higher education is more widely accessible—and no longer only a luxury of the elite—stakeholders demand greater accountability of institutions. Additionally, when colleges identify management inefficiencies, they can reduce public spending, increase the meaningful use and management of resources, improve planning and policy functions, and ensure academic quality. As a result, in the United States, formal processes of accreditation have become the norm and serve the following needs:

Regional accreditation of postsecondary institutions is a voluntary, non-governmental, self-regulatory process of quality assurance and institutional improvement. It recognizes higher education institutions for performance, integrity, and quality to merit the confidence of the educational community and the public. Accreditation or preaccreditation by a postsecondary regional accrediting agency qualifies institutions and enrolled students for access to federal funds to support teaching, research, and student financial aid. (Northwest Commission on Colleges and Universities, 2005)

For two-year tribal colleges, the importance of accreditation cannot be overstated because the acceptance of their students' transfer credits by four-year colleges depends upon it. In the United States, six regional accreditation bodies<sup>1</sup> are responsible for determining whether a college has a suitable mission and goals, whether it has the appropriate resources to reach those goals, and whether those resources are being used in the most effective ways. The review process involves a peer review by experts from other colleges, a self-study, and a review of the assessment program that evaluates articulated performance outcomes. The entire process encourages continued and ongoing self-study and improvement, imparts evaluation skills to participants, and institutionalizes assessment (King, 2004).

Tribal colleges must frequently respond to the needs of accreditation bodies, federal funding agencies, and organizations that financially support the tribal colleges. These relationships sometimes result in tension when tribal colleges' values are questioned or challenged.

<sup>1</sup> The six accreditation commissions in the United States are (1) Middle States Association of Schools and Colleges Commission on Higher Education, (2) New England Association of Schools and Colleges Commission on Institutions of Higher Education, (3) North Central Association of Schools and Colleges Commission on Institutions of Higher Education, (4) Southern Association of Colleges and Schools Commission on Colleges, (5) Western Association of Schools and Colleges Accrediting Commission for Community and Junior Colleges, and (6) Northwest Commission on Colleges and Universities.



Cheryl Crazy Bull (2006), president of Northwest Indian College, states that for tribal colleges, accreditation means “participating in a process that requires us to integrate our understanding of the world as Native people and as Native educators with a different, often western/European based understanding of higher education” (p. 6). She outlines special accreditation issues for tribal colleges including

unique cultural environment, language experiences, social and familial relationships, tribal government’s role, rural and often economically poor and isolated environments, older student population, increasing need to respond to younger students with different expectations, majority of students are women, unusually high number of non-college ready students, generally very limited financial and human resources compared to other educational institutions, often different delivery strategies in use, and pedagogy of teaching and learning based in tribal knowledge and worldview. (p. 7)

As long as tribal colleges are dependent upon, and accountable to, these agencies for accreditation, funding, or support, tribal colleges will have to use assessment in creative ways to resolve this tension. Work in this area has just begun.

With limited time and scarce resources at their disposal, tribal colleges struggle with balancing the needs of the accreditation bodies and funding agencies with the priorities and values of the college, as well as their capacity to generate the data. In addition to the overwhelming challenge this presents, Michael Marker (2000), Director of Ts’kel (First Nations Graduate Studies in Education) at the University of British Columbia, points out a potential challenge in the accreditation process: “As First Nations continue to create programs that celebrate and promote language and identity, they must negotiate cultural outcomes with agencies and institutions that control funding and accreditation” (p. 30). To address this difficulty, tribal colleges might ultimately have to play a role in educating the accreditation bodies and funding agencies regarding culturally appropriate outcomes. If tribal colleges are successful, the accreditation bodies and funding agencies might be more receptive to

the colleges’ “culturally responsive structures and programs” (p. 30) and responsive to the creative, unique, and unconventional ways tribal colleges choose to assess their cultural outcomes. The challenges for tribal colleges will be to determine how to assess such outcomes in a culturally appropriate manner. On the other hand, this challenge presents an opportunity to break new ground, not only in the field of tribal college assessment, but also in the entire assessment field—which has traditionally ignored these kinds of values and outcomes. For an example of the creation of an accreditation body for Indigenous education systems which is grappling with these issues, see the World Indigenous Nations Higher Education Consortium’s website: <http://www.win-hec.org>.<sup>2</sup>

<sup>2</sup> The World Indigenous Nations Higher Education Consortium (WINHEC) is a non-profit international Indigenous organization based in New Zealand. Founded in 2002, it provides support for Indigenous peoples to pursue common goals through higher education. One of WINHEC’s goals is to “create an accreditation body for Indigenous education initiatives and systems that identify common criteria, practices, and principles by which Indigenous Peoples live.” AIHEC was a founder of WINHEC. Through funding from the W. K. Kellogg Foundation, AIHEC provides support to pursue common goals through higher education by providing U.S.-based involvement in advancing the goals of WINHEC. (AIHEC, 2008).

## Effective Tribal College Assessment Programs

The following list of elements may be considered when developing a tribal college assessment program. This list is broken down into inputs, processes, and products.

### INPUTS

#### Plans and Strategies

Articulating and revisiting the mission statement is a critical step in the development of a tribal college assessment program, and it should be emphasized within this framework. A clear and concise mission statement can be an empowering tool (Banta, 1999; Boyer, 2003; Maki, 2004; Mentkowski, et al., 2000; Nichols & Nichols, 2000; Walwood, 2004). At tribal colleges, mission statements are related to the self-determination of Native peoples and the advancement of Native knowledge systems. Development of and commitment to that mission should be a key motivating force for creating an empowering assessment program. Therefore, it is essential for a tribal college to refine, value, and support its mission statement. By using the mission statement to define the standards by which to measure success, a tribal college can view assessment as a means of pursuing its mission, building local capacity, and regaining some of the autonomy and control that Native American communities lost during centuries of colonization.

A tribal college is more likely to have a successful assessment program if it takes the following steps regarding plans and strategies:

##### **Mission Statement**

- Create or update its mission statements (make it clear and concise)
- Increase staff familiarity with and appreciation and support of the mission (e.g., by ensuring staff know the history of their college and the Tribal College Movement)

##### **Strategic Planning Initiative**

- Conduct an inclusive strategic planning initiative that includes tribal community members, tribal college staff, and students. The result should be a simple, clear, and concise strategic plan that includes baseline data for each indicator.

### **Assessment Inventory**

- Conduct an inventory of current assessment practices at the college (this list of components may be used as a guide or framework)

### **Assessment Plan** (see the Assessment Plan section on p. 27)

- Develop a systematic assessment plan (including direct indicators, indirect indicators, and institutional data at the college, program, and course levels)
- Start with projects that faculty or staff have the most enthusiasm for and, therefore, where efforts are more likely to be successful

## **Resources**

The following resources may increase a tribal college's likelihood of implementing a successful assessment program:

### **Assessment Coordinator**

- Hire a full-time assessment coordinator who is knowledgeable about assessment best practices and sensitive to the cultural environment at the college or/and who is very familiar or/and committed to the college's strategy plan

### **Financial Support**

- Provide funds for the administration of assessment-related tasks (e.g., conducting surveys, faculty salaries for completing complex and time-consuming assessment work during non-contract times, providing incentives to students to complete long surveys)

### **Technical Support**

- Create and maintain an adequate enrollment database system and an effective data collection system
- Hire a data administrator who is able to extract the data and create reports

### **Administrators**

- Hire faculty for extended periods of time to focus on assessment initiatives outside of their regular teaching times (i.e., during winter, spring, or summer breaks)
- Provide necessary opportunities, incentives, material resources, and compensation for learning about and implementing assessment initiatives
- Respond in respectful, cooperative, and supportive ways
- Collaborate with faculty and staff

- Streamline and simplify meetings and reduce administrative obstacles to the assessment program
- Provide visible advocacy for assessment
- Show appreciation and thanks to faculty and staff
- Solicit feedback, ideas, and input from staff and faculty and incorporate these suggestions into plans and decisions
- Use the assessment results to make decisions
- Refer regularly to the assessment program and its results in reports and presentations to both internal and external audiences (i.e., leadership team, advisory boards, tribal community, and board of trustees)

#### **Faculty members**

- Remain open-minded and respond in respectful, cooperative, and collaborative ways
- Take ownership of assessment and embrace assessment as an intrinsically valuable developmental process whereby teaching and learning can be continually improved through evaluation, reflection, and identification of needs for change
- Provide students with numerous, varied, and meaningful opportunities to practice skills in ways that are integrated, contextualized, and experiential
- Provide students with numerous, varied, and meaningful opportunities to receive feedback in ways that are integrated, contextualized, and experiential
- Use assessment approaches from which students also learn something
- Use the assessment program and its results to improve student learning

## **PROCESSES**

To develop an effective assessment program, it is essential that the tribal college focus on three processes:

1. The assessment process (how the assessment program itself is carried out)

2. Embedding assessment in college processes (the extent to which assessment is embedded in college processes)
3. Learning, teaching, and assessment approaches (the learning, teaching, and assessment strategies that are employed at the college)

Self-assessment and reflection are essential for the development of the student and they are necessary for sustaining a process of institutional transformation, which will expand awareness of strengths and weaknesses in the quest to become a learning-centered institution (Mentkowski et al., 2000). Aspects of the three processes are explained below.

### Assessment Process

A carefully planned and well-supported assessment program can transform a tribal college's environment toward learning that lasts, however, that transformation takes time and is influenced by the college's own culture (Mentkowski et al., 2000).

The tribal college is more likely to have a successful assessment program if it creates assessment processes that

- are culturally appropriate and also recognize and legitimize Indigenous knowledge and skills;
- contribute to tribal self-determination and knowledge;
- start with interested and supportive faculty and staff;
- are faculty-driven (with assistance from the assessment coordinator);
- are streamlined and simplified so that instructor and staff time are used effectively;
- include employees from appropriate segments of the college;
- result in a respectful and reciprocal relationship between the assessment coordinator and staff;
- build collaboration, relationships, and trust among staff through a consultative process;
- initiate meaningful conversations;
- are conducted in a responsible and ethical manner;
- are useful, relevant, and meaningful to the tribal college community;

- educate administration, staff, and faculty to improve their assessment skills;
- report results internally in an ongoing way so that the information can be used to improve student success and learning (i.e., through meetings, reports, a website, e-mail);
- create a shared vision for the future of the tribal college, based on common values;
- redirect resources towards priorities outlined in the mission and goals;
- increase the college's responsiveness to the needs of the tribal community;
- improve the instructional capacity of the tribal college as well as its public image;
- provide the basis for college planning and budgeting decisions;
- demonstrate accountability and the responsible use of limited resources to the tribal community.

### Embedding Assessment in College Processes

In order to create a culture of assessment, assessment must permeate all aspects of the college. The tribal college is more likely to have a successful assessment program if it embeds assessment throughout college processes, such as

- strategic planning
- curriculum review
- budgeting
- program review
- the First Year Experience program (learning communities and cohorts)
- college catalogue
- college publications
- college website
- job descriptions and announcements
- service learning

## Learning, Teaching, and Assessment Approaches

The tribal college is more likely to have an effective assessment program if it creates an environment where students are learning and being assessed using

- meaningful, relevant, and contextualized experiences;
- approaches traditionally used by tribal people, such as apprenticeships, observations, and practice;
- an integrated curriculum;
- an experientially grounded curriculum;
- a “place-based” curriculum;
- authentic approaches (e.g., self-reflecting and self-assessing, applying concepts to a relevant context, teaching material to peers, writing about a subject, and asking essential questions);
- a curriculum founded on traditional culture and knowledge;
- formative classroom assessment techniques (short, frequent, ungraded attempts to assess student learning) to provide immediate in-class feedback from students.

## PRODUCTS

Effective assessment programs use three types of data or information<sup>3</sup>—often referred to as direct indicators of student learning, indirect indicators of student learning, and institutional data—for assessing success at the college, program, and course levels (Ewell, 1997; Palomba & Banta, 1999; Barbara Walvoord, 2004).

**Direct indicators of student learning**, sometimes referred to as “outcomes assessment,” require that students demonstrate learning through means such as essays, capstone projects, tests, and presentations.

**Indirect indicators of student learning** (or students’ perceptions of their learning) refer to data gained by asking students to reflect upon their learning or college experiences through means such as graduate or student satisfaction surveys, interviews, and focus groups.

**Institutional data** are measures that do not necessarily indicate student learning but do reflect the overall condition and effectiveness of the tribal college. These may include, for example, retention and graduation rates, course completion rates, success after transfer data, and enrollment trends.

<sup>3</sup> It is worth noting that in the assessment literature, there is some disagreement and inconsistency regarding which specific indicators fall within each of these three broad categories.

### Examples of Activities at Each Level of a Tribal College Assessment Program

Ideally, assessment at a tribal college involves a combination of approaches integrating multiple sources of information from all three types of data (i.e., direct indicators, indirect indicators, and institutional data) at the course, program, college, and, eventually, the tribal community levels.<sup>4</sup> Initially, a tribal college can implement one activity from each of the boxes in the table below (Karlberg, 2007). By starting simply, at a point where faculty and staff are enthusiastic and supportive, a tribal college can achieve successful and meaningful results. Once a project succeeds and yields positive results, people may be more supportive of and positive about future endeavors.

Table 1. Examples of Activities at Each Level of a Tribal College Assessment Program

Level				
Type of Indicator	Tribal Community	College	Program	Course
<b>Direct indicators of student learning</b> (outcomes assessment)	<ul style="list-style-type: none"> <li>Update and/or increase familiarity &amp; support for mission</li> <li>Tribal community outcomes (e.g., number of Native language speakers; improving tribal leadership qualities)</li> </ul>	<b>College Outcomes</b> <ul style="list-style-type: none"> <li>Update and/or increase familiarity and support for mission</li> <li>Develop college outcomes</li> <li>Implement college outcomes</li> </ul>	<b>Program Outcomes</b> <ul style="list-style-type: none"> <li>Develop program outcomes</li> <li>Implement program outcomes</li> </ul>	<b>Course Outcomes</b> <ul style="list-style-type: none"> <li>Develop course outcomes</li> <li>Implement course outcomes</li> </ul>
<b>Indirect indicators of student learning</b> (student perceptions through surveys, focus groups, interviews)	<ul style="list-style-type: none"> <li>Survey tribal employers (e.g., determine whether graduates are entering the workforce with appropriate skills)</li> </ul>	<b>College Surveys</b> <ul style="list-style-type: none"> <li>Graduate survey</li> <li>Faculty peer review</li> </ul> Cyclical <ul style="list-style-type: none"> <li>Student opinion survey</li> <li>Alumni survey</li> <li>Student engagement survey (e.g., Community College and Faculty Survey of Student Engagement)</li> </ul>	<b>Program Surveys</b> <ul style="list-style-type: none"> <li>Graduate survey</li> <li>Student exit survey</li> </ul>	<b>Course Surveys</b> <ul style="list-style-type: none"> <li>Course evaluations (may include evaluation of outcomes)</li> </ul>
<b>Institutional and community data</b> (rates and numbers)	<b>Track</b> <ul style="list-style-type: none"> <li>College attendance</li> <li>College graduation</li> <li>Employment trends</li> </ul>	<b>College Data</b> <ul style="list-style-type: none"> <li>Student enrollment</li> <li>Graduation (3 year rates)</li> <li>Retention (one quarter, quarter to quarter, fall to spring, fall to fall)</li> <li>Performance after transfer (e.g., from ABE to college-level and from the tribal college to 4-year colleges), compare grades and retention data<sup>5</sup></li> <li>Time to degree completion</li> </ul>	<b>Program Data</b> <ul style="list-style-type: none"> <li>Enrollment</li> <li>Retention</li> <li>Graduation</li> <li>Time to program completion</li> <li>Transfer data</li> </ul>	<b>Course Data</b> <ul style="list-style-type: none"> <li>Enrollment</li> <li>Course completion</li> </ul>

Note: When the team addresses the three columns on the right, strategies for addressing the **Tribal Community** column will be clear.

<sup>4</sup> As suggested by Paul Boyer (2003), tribal colleges may wish to assess these indicators at the wider tribal community level, for example, by determining the impact of the tribal college on local tribal communities.

<sup>5</sup> See the discussion in Appendix C, Grades, assessment, and rubrics.

## Direct Indicators of Student Learning

The direct assessment of student learning, which is sometimes referred to as outcomes assessment, is the systematic process of gathering, interpreting, and using information regarding student academic performance to improve student learning and the quality of academic programs. Assessment programs identify college, program, and course outcomes that derive from the institution's mission, and compare these intended outcomes with the actual results achieved (Seybert, 2003). As a result, the outcomes work constantly evolves. The three levels of outcomes are distinguished below.

### Three Levels of Outcomes

**College outcomes** are overarching skills emphasized and reinforced throughout many courses in all programs/majors at the tribal college. They define the common skills that the college would like all of its students to possess by graduation.

Example: All graduates, regardless of their program or major, will be able to “write standard English” or “introduce themselves effectively in their Native language” or “communicate effectively in writing.”

**Program outcomes** are overarching skills emphasized and reinforced throughout several courses in a specific program or major. They define what the tribal college would like students to be able to do by the end of a program or major. Program outcomes go beyond the skills outlined in the college outcomes.

Example: All graduates of the early childhood program will be able to “analyze the importance of and demonstrate their ability to connect with children.”

**Course outcomes** are the most important skills the college would like students to possess by the end of a specific course. They are unique to a specific course. Course outcomes go beyond the skills outlined in the college outcomes and program outcomes.

Example: All students who complete the basketry course are able to “collect and prepare the materials required to weave a basket.”

## College Outcomes<sup>6</sup>

Creating an effective outcomes process at the college level requires two major phases. The first is developing the outcomes process and the second is implementing the outcomes process.

The first phase involves **developing the college outcomes process** by

educating faculty and staff about assessment, and students about the role of assessment;

identifying the college outcomes (see an example on p. 17);

developing rubrics to measure the outcomes (see an example in Appendix B);

determining which courses will be used to reinforce and/or assess the outcomes at entry, midway, and exit in each program (i.e., creating a curriculum map; see an example in Appendix C);

including college outcomes on syllabi;

collecting the instructional activities, experiences, projects, or assignments in required courses that will be used to **teach** college outcomes at entry, midway, and exit;

collecting the activities, experiences, projects, essays, or assignments in required courses that will be used to **assess** college outcomes at entry and exit (see Conventional versus Authentic Assessment Tools, p. 34);

attaching anchor papers (i.e., examples) for each level of the rubric scale.

The second phase involves **implementing the college outcomes process** by

assessing students at entry and exit for college outcomes;

analyzing the entry and exit assessment data (see Appendix D);

presenting analyses to faculty and students and consulting on the results;

using the data to improve and revise curriculum;

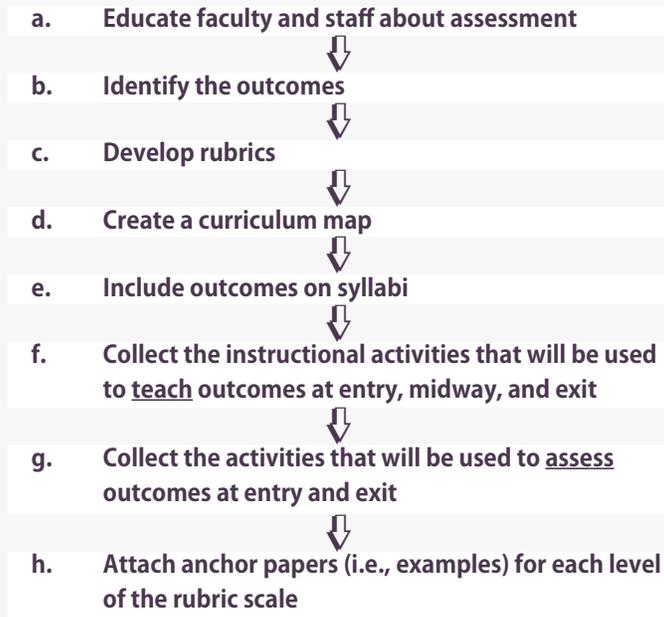
documenting the process and creating an assessment report about how the data were used to improve learning (see Appendix G).

<sup>6</sup> Ideally, all faculty, administrators and staff should be able to demonstrate the college outcomes.

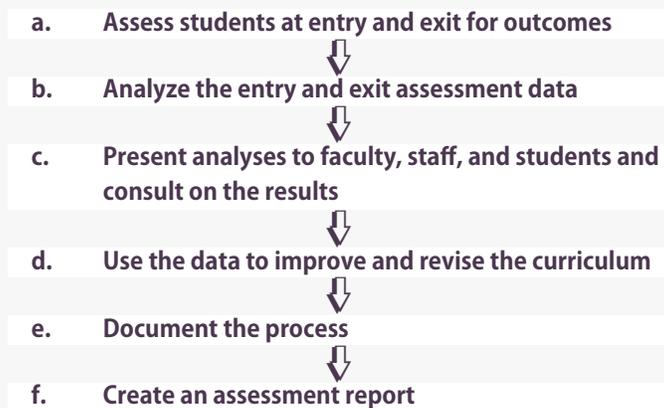
## Creating an Effective Outcomes Process Worksheet

Creating an effective outcomes process at the college level requires two major phases. The first is developing the outcomes process, and the second is implementing the outcomes process. Similar steps are required at the program and course levels.

### (1) DEVELOPMENT OF THE OUTCOMES PROCESS



### (2) IMPLEMENTATION OF THE OUTCOMES PROCESS



These projects require concentrated faculty time, attention, and effort. In order to be able to focus on this work, some colleges hire faculty during the breaks (i.e., during the summer, winter, or spring breaks).

**Example of College Outcomes<sup>7</sup>**

1. Native language, history, culture, and worldview. Student outcomes include
  - a. Language
    - i. Introduce themselves effectively as measured by a performance based assessment and rubric (non-speaker track) or
    - ii. Develop and deliver effectively a three- to six-minute presentation appropriate to a peer audience, including self-introduction, as measured by a performance based assessment and rubric (speaker track)
  - b. History
    - i. Summarize and discuss in essay form ten defining aspects of pre-contact Native American history with the rationale for their inclusion and
    - ii. Summarize and discuss in essay form ten defining aspects of post-contact Native American history with the rationale for their inclusion
  - c. Culture and worldview. See Appendix H, Alaska Standards for Culturally Responsive Schools—Cultural Standards for Students, for an example of how Alaska has identified cultural outcomes for its public school students
2. Information literacy. Students will be able to
  - a. Identify specific information needed to solve a problem or research a question
  - b. Identify and use appropriate print or electronic resources to match information needs and to locate the needed information in an efficient and effective manner
  - c. Evaluate information for currency, relevancy and reliability
  - d. Incorporate located information into academic or professional work or use it to solve the given problem
3. Mathematics reasoning. Students will be able to
  - a. Apply mathematics skills to solve applied problems, using the four-step problem solving process as follows: (1) understand the problem (*nitsáhákees*); (2) devise a plan for solving the problem (*nahatá*); (3) carry out the plan (*iiná*); and (4) look back to check the solution and state the answer clearly (*siihasin*)
  - b. Present solutions correctly and clearly, indicating the ability to think in a sequential manner
  - c. Recognize various symmetries of graphs or geometric figures
4. Oral communication. Students will be able to
  - a. Apply effective presentation skills
  - b. Apply interpersonal communication skills
5. Written communication. Students will be able to
  - a. Write standard English
  - b. Write in a variety of text forms using various credible sources

<sup>7</sup> This example is adapted from the outcomes from Diné College ([http://library.dinecollege.edu/il/faculty/gen\\_ed.html](http://library.dinecollege.edu/il/faculty/gen_ed.html)) and Northwest Indian College (<http://ww2.nwic.edu/faculty/assessment/>).

## Program Outcomes

Creation of an effective outcomes process at the program level also involves two major phases: (1) developing the outcomes process and (2) implementing the outcomes process.

The first phase involves **developing the program outcomes process** by

educating faculty and staff about assessment, and students about the role of assessment in their education;

identifying the program outcomes (see an example on the following page);

developing rubrics to measure the program outcomes (see Appendix B for an example of a rubric);

determining which courses will be used to reinforce and/or assess the program outcomes at entry, midway, and exit (i.e., creating a curriculum map) (see Appendix C for an example of a curriculum map);

including program outcomes on syllabi;

collecting the instructional activities, experiences, projects, or assignments in required courses that will be used to **teach** program outcomes at entry, midway, and exit;

collecting the activities, experiences, projects, essays, or assignments in required courses that will be used to **assess** program outcomes at entry and exit;

attaching anchor papers (i.e., examples) for each level of the rubric scale.

The second phase involves **implementing the program outcomes process** by

assessing students at entry and exit for program outcomes;

analyzing the entry and exit assessment data (see Appendix D);

presenting analyses to faculty and students and consulting on the results;

using the data to improve and revise curriculum;

documenting the process and creating an assessment report about how the data were used to improve learning and the program (see Appendix G).

### **Example of Program Outcomes for the Associate of Applied Science-Transfer Program in Early Childhood Education<sup>8</sup>**

1. Promoting child development and learning. Students will be able to describe children's characteristics and needs;  
identify, analyze, and reflect upon multiple influences on child development and learning;  
create safe, healthy, respectful, supportive and challenging environments for learning.
2. Building family and community relationships. Students will be able to describe and reflect upon family and community characteristics;  
support and empower families and communities through respectful and reciprocal relationships;  
involve families and communities in their children's development and learning;  
assist families in reinforcing resilience and accessing resources.
3. Observing, documenting, and assessing. Students will be able to articulate the goals, benefits, uses, and responsible uses of assessment;  
use observation, documentation, and other appropriate assessment tools and approaches;  
articulate uses of assessment in partnership with families and other professionals.
4. Teaching and learning. Students will be able to analyze the importance of and demonstrate their ability to connect with children;  
use developmentally effective approaches;  
articulate content knowledge in early education;  
build meaningful curriculum.
5. Integrity, advocacy, warmth, joy, and attention to children. Students will be able to identify with and involve themselves in the early childhood field, engaging in continuous, collaborative learning;  
act with integrity;  
engage in informed advocacy for children, families, early learning programs, and themselves as early childhood educators;  
integrate knowledgeable, reflective, and critical perspectives on early education.

<sup>8</sup> This example is taken from Northwest Indian College: ([http://ww2.nwic.edu/faculty/assessment/DirectIndicators/ProgramOutcomes/program\\_outcomes.php](http://ww2.nwic.edu/faculty/assessment/DirectIndicators/ProgramOutcomes/program_outcomes.php)).

## Course Outcomes

Development of an effective outcomes process at the course level occurs in two phases: (1) developing the outcomes process and (2) implementing the outcomes process.

The first phase involves **developing the course outcomes process** by

- educating faculty and staff about assessment and students about the role of assessment in their education;

- identifying the course outcomes (see an example on the following page);

- developing rubrics to assess the course outcomes (see Appendix B for an example of a rubric);

- including course outcomes on syllabi;

- collecting the instructional activities, experiences, projects, or assignments in required courses that will be used to teach course outcomes at entry, midway, and exit;

- collecting the activities, experiences, projects, essays, or assignments in required courses that will be used to assess course outcomes at entry and exit;

- attaching anchor papers (i.e., examples) for each level of the rubric scale;

The second phase involves **implementing the course outcomes process** by

- assessing students at entry and exit for course outcomes;

- analyzing the entry and exit assessment data (see Appendix D);

- occasionally sharing results with faculty and consulting on the results;

- comparing the achievement of different students in the same course over time;

- using the data to improve and revise curriculum and improve learning;

- documenting the process and creating an assessment report about how the data were used to improve learning and the course;

**Example of Course Outcomes for Early Childhood Education 206 (Building Relationships: Culture, Family, and Community)<sup>9</sup>**

Upon successfully completing ECED 206, students will be able to

compose one written summary or case study of the ways in which biology, culture, socioeconomic status, and environmental influences contribute to the shaping of the strengths and needs of the family and of a specific child in the family;

identify, while examining case studies, three main parenting styles and at least two effects that parenting styles have on a child's development;

identify how parenting styles exist in a classroom, and may or may not be in harmony with a child's parenting experiences at home;

identify and describe at least three historical factors that have affected and continue to affect Native Americans;

research and identify two or more cultural traditions and values regarding child rearing and family interactions and roles within one's own community;

identify at least three factors that support resilience in children, and a strategy that can be used in the home, school, and community to support the development of resilience;

develop, based upon a case study, an intervention with a resource and referral plan for a child and family that utilizes strengths-based and solutions-oriented practices, needs assessment, eco-map development, and client-centered practice.

<sup>9</sup>This example is taken from Northwest Indian College: ([http://ww2.nwic.edu/faculty/assessment/DirectIndicators/CourseOutcomes/course\\_outcomes.php](http://ww2.nwic.edu/faculty/assessment/DirectIndicators/CourseOutcomes/course_outcomes.php)).

## Indirect Indicators of Student Learning

Assessment programs also use indirect indicators to assess student success. Indirect indicators can be gleaned from surveys, focus groups, and interviews. They provide information about students' own perceptions of their learning and experiences.

Indirect indicators can provide valuable information about the strengths and weaknesses of a college, program, or course. But in order to produce reliable assessment results, these data should be combined with activities that directly assess learning. In this way, indirect measures can support the results of direct measures, or possibly supplement direct data that is difficult to interpret.

Examples of indirect indicators of student learning are listed on the next page (Alfred, Ewell, Hudgins, & McClenney, 2000; Banta, 1999; CSHE, 2002; Green & Castelli, 2002; Maki, 2002; Seybert, 2003). The college may use national standardized surveys with additional questions at the end that are specific to tribal colleges.

### Examples of Indirect Indicators of Student Learning

The tribal college is more likely to have a successful assessment program if it gathers information about students' perceptions of their learning, for example, through the following commonly conducted surveys, focus groups, or interviews:

Course evaluations by students (may ask students to rate how well they mastered outcomes in the course evaluation) (ongoing)

Student opinion or satisfaction surveys (i.e., ACT, etc.) (may alternate every three years with the Community College Survey of Student Engagement)

Student engagement surveys, such as the Community College Survey of Student Engagement and the Faculty Survey of Student Engagement (exploring active student involvement in learning) (may alternate every three years with the student opinion survey)

Graduate surveys (ongoing of current graduating students)

Alumni survey (of students who graduated several years ago) (every five to ten years) and/or

Also, tribal colleges may decide to conduct the following surveys, focus groups, or interviews:

Campus climate surveys

Evaluations of programs and services by students

Exit interviews and focus groups

Employer satisfaction surveys

Student self-evaluations

Student goal attainment and values inventories and/or

Non-returning student surveys (goal completion information)

## Institutional Data

Institutional data is sometimes referred to as “non-measures of student learning” and can be used to monitor the internal improvements and effectiveness of the college (Green & Castelli, 2002; Barbara Walvoord, 2004). This data (usually quantitative) may be compared longitudinally or may be used to study the progress of an entire cohort of students. Typically, colleges use institutional data to address important concerns or answer pertinent questions. Examples of institutional data collected about different types of students<sup>10</sup> that are key to successful development of an assessment program are displayed on the following page (Alfred et al., 2000; Banta, 1999; CSHE, 2002; Green & Castelli, 2002; Maki, 2002; Nichols, 2002; Seybert, 2003; Barbara Walvoord, 2004).

<sup>10</sup> For example, degree and certificate-seeking students, nondegree-seeking students, and ABE/GED students.

## Examples of Institutional Data

### Course Level Data

- Completion rates and enrollment numbers by level of course,<sup>11</sup> by mode of learning,<sup>12</sup> and by program\*
- Grade distribution analysis\*
- Success rate of ABE or developmental students in subsequent college-level courses

### College Level Data

- Enrollment patterns (e.g., full-time equivalent numbers, headcount and Indian student count)\*
- Student/faculty ratios
- Level of participation in co-curricular activities, learning communities, service learning/ community service

### Program/Degree Level Data

- GPAs/grades and grade distribution analysis\*
- Retention rates (e.g., one semester,<sup>13</sup> semester-to-semester,<sup>14</sup> fall-to-fall/spring<sup>15</sup>)\*
- Graduation (three-year) rates and numbers\*
- Enrollment patterns (e.g., full-time equivalent numbers, head count, and Indian student count)\*
- Cost
- Demographic data/diversity of student body
- Performance after transfer data: compare GPA at receiving four-year colleges to GPA at tribal colleges and look at retention data\*
- Length of time to degree completion\*
- Job placement rates

<sup>11</sup> For example, CEU courses, ABE courses, GED courses, developmental courses, and college level courses.

<sup>12</sup> For example, courses taught online, face-to-face, through correspondence, or through interactive TV.

\* An asterisk indicates information that is most typically used at colleges.

<sup>13</sup> Example of a one quarter retention rate definition: Of students who attempted at least one credit in a quarter, the percent that completed at least one credit that quarter.

<sup>14</sup> Example of a quarter to quarter retention rate definition: Of students who completed at least one credit in a quarter, the percent that completed at least one credit the following quarter.

<sup>15</sup> Example of a fall-to-fall retention rate definition: Of students who completed at least one credit one fall quarter, the percent that completed at least one credit the following fall/spring quarter.

## OVERVIEW OF COMPONENTS OF A TRIBAL COLLEGE ASSESSMENT PROGRAM

The diagram below (see also Appendix E) provides a useful framework for creating an assessment program in a tribal college. Although many assessment programs typically focus their efforts on the end product, it is equally important that tribal colleges consider the assessment program's context, inputs and implementation. Because the assessment program intends to affect change in the tribal college community and the tribal community at large (i.e., the context), the products of the assessment program lead back to, and actually impact, the context. Furthermore, articulating and revisiting the mission statement is a critical initial step in the development of a tribal college assessment program that should be emphasized in this framework.

Components of a Tribal College Assessment Program



---

## Documentation and “Closing the Loop”

### THE ASSESSMENT PLAN

The assessment plan is dynamic in nature, coordinates campus-wide assessment efforts, presents to external bodies a well-conceived approach to assessment, and provides a systematic way to determine the extent to which outcomes have been achieved. The assessment plan lays out the schedule for developing and implementing the various activities of the assessment program. The assessment plan may include a simple matrix or a timeline that helps track tasks and accomplishments related to direct indicators, indirect indicators, and institutional data at the college, program, and course levels. A simple approach to creating an effective assessment plan is to create a timeline for the activities listed in each of these nine categories: (1) college outcomes, (2) program outcomes, (3) course outcomes, (4) college surveys, (5) program surveys, (6) course surveys, (7) college data, (8) program data, and (9) course data. See Appendix F for example of a college outcomes assessment plan.

In its *Accreditation Handbook*, the Northwest Commission on Colleges and Universities (2003), the accreditation body that oversees the colleges and universities in the northwestern United States, emphasizes the importance of the college and program assessment plans.

The Northwest Commission on Colleges and Universities expects each institution and program to adopt an assessment plan responsive to its mission and its needs. In so doing, the Commission urges the necessity of a continuing process of academic planning, the carrying out of those plans, the assessment of the outcomes, and the influencing of the planning process by the assessment activities (p. 37).

For an example of a tribal college assessment plan, see the Northwest Indian College Assessment website at <http://ww2.nwic.edu/faculty/assessment/> (follow the “Plans” link).

## THE ASSESSMENT REPORT

The assessment report documents activities demonstrating tribal colleges' use of assessment results to improve student learning. It serves one or both of two purposes. (1) to outline existing assessment strategies and to recommend ways to improve assessment, and (2) to summarize outcomes of assessment measures and recommend ways to improve student learning (Barbara Walvoord, 2004, p. 9). Currently, tribal college assessment reports tend to focus on the first purpose, highlighting strengths and weaknesses and making recommendations for improving assessment programs.

If the assessment report aims to improve assessment, then the tribal college assessment report may emphasize the strengths and weaknesses of the assessment program and make recommendations for improving the following components of the assessment program (for more details see the components of Effective Tribal College Assessment Programs checklist, p. 7).

1. Inputs to the assessment program including the plans and strategies, and the resources available for assessment.
2. Processes of the assessment program, including how the assessment program is implemented, the extent to which assessment is embedded in college processes, and the types of learning, teaching, and assessment strategies employed at the college.
3. Products of the assessment program and how these results are used to improve learning. This includes the extent to which the college is executing assessment initiatives in three broad categories: (a) direct indicators of student learning (i.e., outcomes assessment, such as how faculty created the outcomes, how they are used for assessment, the measures of student achievement, the reasons they chose these measures, how they relate to the outcomes, and how they are administered), (b) indirect indicators of student learning (i.e., student's perceptions of their learning), and (c) institutional data (e.g., retention and community graduation rates).

If the assessment report intends to improve student learning, then the assessment report should include a list of the outcomes; data from assessment measures and what the results suggest about student achievement of the outcomes; and recommendations to improve student learning (Barbara Walvoord, 2004).

Assessment reports can be created at the course, program, and college levels. For instance, a basic assessment report at the **course level** may include the instructors' outcomes, the tests and assignments, the instructors' criteria and standards (i.e., rubrics), student scores over time, and evidence of feedback into learning and teaching (Barbara Walvoord & Anderson, 1998). A basic assessment report at the **program level** can be created using a matrix similar to the section of the program-level assessment report in Table 2.

*Table 2. Section of an Environmental Studies Program Assessment*

Program Outcome	Assessment Criterion and Procedure	Assessment Result	Use of Result
Students will be able to propose solutions to and solve real-world problems by applying the correct numerical data.	Eighty percent of students completing the program will score four or higher on the rubric for this outcome for the final project in the graduating seminar.	Only 70% of students completing the program had a score of four or higher on this rubric for the final project in the graduating seminar.	This concept will be reinforced in two additional required environmental studies courses.

Adapted from J. Nichols (2002, p. 247)

An example of a **college level** tribal college assessment report is posted on the Northwest Indian College Assessment website at [http://ww2.nwic.edu/faculty/assessment/InstitutionalData/institutional\\_data.php](http://ww2.nwic.edu/faculty/assessment/InstitutionalData/institutional_data.php). Also, see Appendix G for example of a College Outcomes Assessment Report.

## FEEDBACK OF ASSESSMENT RESULTS

Effective assessment requires that colleges move beyond merely documenting processes to evaluating the college's overall effectiveness. This reporting framework presented in Table 2 (p. 29) encourages faculty and staff to use the assessment results to improve learning. After the college implements its plan, it may communicate its results in various ways.

For instance, one college presents the results of one section of its assessment plan and report in a reflective meeting every second month to its board, faculty, staff, and students (Weinstein, 2003). In this way, a college can focus on a new topic every couple of months and present more manageable amounts of information to its community. Its assessment process includes a deep reflection on the results and recommendations for future changes. It also reports on results of changes made in previous years.

Other colleges opt for annual report cards that deliver the progress of institutional data (Banta, 1999). This option can be overwhelming, as it requires a more substantial annual reporting project and is more of a one-time effort.

Other faculty and staff meet regularly through faculty retreats, meetings, forums, and so forth to reflect on experience gained through the assessment process and translate this learning into actionable reforms (Ewell, 2002). Feedback of assessment results is a significant part of the assessment process. Regardless of which reporting method is chosen, feedback should not be rushed. Rather, faculty and staff should have adequate time to reflect upon the information and implement changes.

## Emerging Innovative Approaches to Assessment

### ASSESSMENT AS LEARNING

In the United States, a few colleges have taken the lead in engaging students in the assessment process itself—as a means of promoting learning. Alverno College, a small Catholic liberal arts college for women in Milwaukee, Wisconsin, has been a leader in assessment for the last 30 years and has pioneered the concept of “assessment as learning” (Mentkowski et al., 2000). Faculty and staff there believe that “students should learn something through every assessment process and, if assessment is done well, the result should be learning that lasts.” Thus, assessment at Alverno College is as much a part of the learning process as it is a part of the evaluation process—and the success of this approach has been impressive. Serving a predominantly low income, minority population, Alverno College (both its faculty and students) has received numerous awards and widespread recognition for its achievements (Alverno College, 2004).

This success is a result of Alverno College’s philosophy of assessment, which is based on the following principles:

If learning is to be integrative and experiential, assessment must judge performance.

If learning is to be characterized by self-awareness, assessment must include expected outcomes, explicit public criteria, and student self-assessment.

If learning is to be active and interactive, assessment must include feedback and external perspectives as well as performance.

If learning is to be developmental, assessment must be cumulative and expansive.

If learning is to be transferable, assessment must be multiple in mode and context (Mentkowski et al., 2000, p. 60).

These principles form the foundation of all learning and teaching at Alverno College, which pushes the concept of authentic assessment farther than most other institutions. In the process, the college

established a standard of experiential learning by integrating internships, content, and abilities, and by defining outcomes as abilities. To support this approach, Alverno College's curriculum is ability-based: Throughout the course of their studies, students are required to demonstrate increasing competence in eight different areas, including communication, analysis, problem-solving, valuing in decision making, social interaction, global perspectives, effective citizenship, and aesthetic responsiveness. Because the assessment of these eight abilities is integrated into a coherent educational system, students make connections across different disciplines (as well as within their majors). Furthermore, students are required to track the progress of their own outcomes. Because Alverno emphasizes the importance of self-reflection, students become motivated, responsible, and accountable for their own learning and progress (Mentkowski et al., 2000).<sup>16</sup>

<sup>16</sup> Alverno College's Student Assessment-as-Learning website (<http://depts.alverno.edu/saal/index.html>) has links to information about inspiring assessment workshops and other resources offered by Alverno College.

## CLASSROOM ASSESSMENT TECHNIQUES

Some innovative methods for assessing student learning do not rely upon grades. For instance, short, frequent, ungraded attempts to assess student learning, referred to as “classroom assessment techniques,” provide immediate in-class feedback from students about which concepts are clear and which are not. The book *Classroom Assessment Techniques*, by Angelo and Cross (1993), provides an excellent overview of these techniques. One example of a classroom assessment technique is called the “muddiest point.” The instructor asks the students at the end of a class to write down, in one minute, the concept that was least clear to them during the class. The instructor gathers the sheets, reviews the responses, and then responds to the feedback during the following class.

These formative assessment techniques provide instructors with the opportunity to make adjustments to courses mid-stream (or even mid-class) and to build trust and relationships with their students. The use of other formative assessment techniques, such as self-assessment and peer reviews, are also useful and tend to be intrinsically rewarding for students. Although it is difficult to formally tie these efforts to program assessment, assessment scholars are convinced that these strategies improve student retention and engagement and provide instructors with valuable feedback (Banta, 2004; Barbara Walvoord & Anderson, 1998).

## CONVENTIONAL VERSUS AUTHENTIC ASSESSMENT TOOLS

It is widely accepted that certain teaching strategies—such as self-reflecting, practicing and repeating, applying concepts to a relevant context, teaching material to peers, writing about a subject, and asking essential questions—foster deep learning (Maki, 2005). It is also known that “what and how students learn depends to a major extent on how they think they will be assessed” (Biggs, 1999, p. 141).

Direct methods of assessing student learning tend to fall into two general categories: conventional tests (e.g., multiple choice exams) and what are called “authentic” assessment tools. Both of these approaches attempt to assess the observable performance of students. Table 3 (p.35) provides examples of both conventional tests and authentic assessment tools that can be used directly to assess student learning at the college, program, or course levels (Gipps & Stobart, 2003; Green & Castelli, 2002; Knight, 2003; Maki, 2002; Nichols, 2002; Palomba & Banta, 1999; Seybert, 2003).

Conventional tests may be standardized or locally designed and may be of different types (e.g., multiple choice, fill-in-the-blank, short answer, true or false, etc.). Although they may or may not reflect a student’s ability to truly understand or apply the concepts and material, some scholars believe that conventional tests provide information about cognitive outcomes (Palomba & Banta, 1999).

Authentic assessment tools, on the other hand, may provide students with the opportunity to demonstrate behaviors and performance in “real-life” and applied situations. These authentic assessment tools ideally measure the knowledge and abilities expected by professionals in the students’ respective fields. The main disadvantages with using authentic assessment tools is that setting up the system requires a large investment in resources and in time; they take more time and effort to score; they may not be reliable; they often lack comparable norms; and they usually cover a narrow range of skills (Stufflebeam, 2001).

As described in the Assessment as Learning section of the manual (p. 31), effective instructors attempt to structure all assessment activities as learning opportunities for students; therefore, a majority of their assessment strategies tend to be authentic.

Table 3. Examples of Direct Methods for Assessing Student Learning

Conventional Tests	Authentic Assessment Tools
<ul style="list-style-type: none"> <li>• Certification exams</li> <li>• Cognitive assessment tests</li> <li>• College competency tests</li> <li>• Comprehensive tests / exams</li> <li>• Critical thinking tests</li> <li>• Entrance tests</li> <li>• General knowledge tests</li> <li>• Graduate entrance exams (e.g., GRE)</li> <li>• Licensure exams</li> <li>• National exams</li> <li>• Placement tests for entering students (e.g., math, writing or reading)</li> <li>• Pre- and post-tests for attitudes and mastery of knowledge</li> <li>• Professional exams</li> <li>• Quantitative problem solving tests</li> <li>• Standardized tests</li> </ul>	<ul style="list-style-type: none"> <li>• Apprenticeships</li> <li>• Capstone projects or experiences</li> <li>• Case studies</li> <li>• Competency-based projects</li> <li>• Essays (written projects, pre and post)</li> <li>• Internships (externally reviewed)</li> <li>• Interviews</li> <li>• Job performance</li> <li>• Journals</li> <li>• Juried reviews</li> <li>• Observations of student behavior or skills</li> <li>• Oral presentations and exams</li> <li>• Peer evaluation</li> <li>• Performance-based mastery tests</li> <li>• Portfolio system</li> <li>• Presentations</li> <li>• Projects (e.g., abstracts, advertisements, brochures, budget with rationale, research)</li> <li>• Reflection logs</li> <li>• Self-assessment</li> <li>• Simulation exercises</li> <li>• Thesis / major project / doctoral thesis</li> <li>• Video and audio tape evaluations (pre/post)</li> <li>• Workplace competency</li> </ul>

---

## Concluding Comments

With the new emphasis on outcomes, tribal colleges have an opportunity to redefine their own measures of success and, therefore, their own curricular and pedagogical values and approaches in more culturally appropriate ways. By using the mission statement to set their own standards of measuring success, tribal colleges can view assessment programs as a means of pursuing their missions, building local capacity, and advancing processes of self-empowerment, self-determination, and decolonization among Native peoples.



## Glossary

**Accreditation** (p. 4) of postsecondary institutions is a voluntary, non-governmental, self-regulatory process of quality assurance and institutional improvement. It recognizes higher education institutions for performance, integrity, and quality to merit the confidence of the educational community and the public. Accreditation or preaccreditation by a postsecondary regional accrediting agency qualifies institutions and enrolled students for access to federal funds to support teaching, research, and student financial aid.

**Assessment** (p. 1) is “the systematic collection of information about student learning, using the time, knowledge, expertise, and resources available in order to inform decisions about how to improve learning.” The primary purpose of assessment in higher education is to improve student learning. The secondary purpose is to demonstrate accountability.

**Assessment as learning** (p. 31) is the concept that students should learn something every time they are assessed.

**Assessment plans** (p. 27) coordinate future and current campus-wide assessment efforts, present to external bodies a well-conceived approach to assessment, and provide a systematic way to determine the extent to which outcomes have been achieved.

**Assessment reports** (p. 28) document past assessment activities and report how the tribal college is using assessment results to improve student learning. They serve either one or both of the following purposes: To outline existing assessment strategies and recommend ways to improve assessment and/or, to summarize outcomes of assessment measures and recommend ways to improve student learning.

**Authentic assessment** (p. 34) is a direct method of assessing student learning that provides students with the opportunity to demonstrate behaviors and performance in “real-life” and applied situations. These authentic assessment tools ideally measure the knowledge and abilities expected by professionals in the students’ respective fields.

**Classroom assessment techniques** (p. 33) are innovative, short, frequent, ungraded attempts to assess student learning that provide immediate in-class feedback from students about which concepts are clear and which are not.

**College outcomes** (p. 15) are overarching skills that are emphasized and reinforced throughout many courses in all programs/majors at the tribal college. They define the common skills that the college would like all of its students to possess by graduation.

**Conventional tests** (p. 34) are a direct method of assessing student learning. Tests may be standardized or locally designed and may be of different types (e.g., multiple choice, fill-in-the-blank, short answer, true or false, etc.). Although they may or may not reflect a student's ability to truly understand or apply the concepts and material, some scholars believe that conventional tests provide information about cognitive outcomes.

**Course outcomes** (p. 20) are the most important skills a tribal college would like students to possess by the end of a specific course. They are unique to a specific course. Course outcomes are more specialized than those outlined in the college outcomes and program outcomes.

**Curriculum maps** (p. 47) are an effective tool for determining where in the curriculum each of the college outcomes is being assessed and reinforced. By listing course requirements for each program, this simple matrix outlines the level to which students are expected to master each of the college outcomes in each of the required courses. The curriculum map provides an efficient and useful way to identify gaps in the program where college outcomes may be neglected. Curriculum maps are also used to track program outcomes.

**Direct indicators of student learning** (p. 14), sometimes referred to as "outcomes assessment," require that students demonstrate their learning through, for example, essays, capstone projects, tests, and presentations.

**Indirect indicators of student learning** (p. 22) provide information about students' perceptions about their learning and their college experiences. They require students to reflect on their learning through, for example, graduate or student satisfaction surveys, interviews, and focus groups.

**Inputs** (p. 7) to a tribal college assessment program include (1) the plans and strategies (i.e., the mission statement, the strategic planning initiative, the assessment inventory, and the assessment plan) and (2) the resources (i.e., the assessment coordinator, financial support, technical support, administrators, and faculty) that go into developing the program.

**Institutional data** (p. 24) are institution-level measures that do not necessarily indicate student learning but do reflect the overall condition and effectiveness of the tribal college. Data may include, for example, retention and graduation rates, success after transfer data, and enrollment trends.

**Processes** (p. 9) of a tribal college assessment program include (1) how the assessment program itself is carried out, (2) the extent to which assessment is embedded in college processes, and (3) the learning, teaching, and assessment strategies that are employed at the college.

**Products** (p. 12). Effective assessment programs use three types of data: direct indicators of student learning, indirect indicators of student learning, and institutional data. These three types of data are used to assess success at the college, program, and course levels.

**Program outcomes** (p. 18) are overarching skills that are emphasized and reinforced throughout several courses in a specific program or major. They define what the tribal college would like students to be able to do by the end of a program or major. Program outcomes go beyond the skills outlined in the college outcomes.

**Rubrics** (p. 49) are scoring tools that list the criteria for a certain skill or piece of work. For example, a rubric for a writing outcome or an essay might tell students that their work will be judged on content, organization, voice, word choice, sentence fluency, and grammar/spelling/punctuation. A good rubric also describes levels of quality for each of the criterion, usually on a point scale. Under grammar/spelling/punctuation, for example, the rubric might define the lowest level of performance as "many misspellings, grammar, and punctuation errors," and the highest level as "all words are spelled correctly; work shows understanding of subject-verb agreement, when to make words possessive, and how to use commas, semicolons, and periods."

**World Indigenous Nations Higher Education Consortium (WINHEC)** (p. 6) is a non-profit international Indigenous organization based in New Zealand. It provides an international forum and support for Indigenous peoples to pursue common goals through higher education. One of WINHEC's goals is to "create an accreditation body for Indigenous education initiatives and systems that identify common criteria, practices, and principles by which Indigenous Peoples live."

## Appendix A

### ADDITIONAL RESOURCES

In addition to the resources cited in the References section, the following resources may be helpful in assisting tribal colleges with their assessment programs.

***Tribal College Journal*. (Summer 2008). Success by Accountability and Assessment. Volume 19, Issue No. 4.**

This entire Tribal College Journal issue is dedicated to looking at assessment and accountability topics.

***Tribal College Journal*. (Summer 2008). Online Assessment Resource Guide: Assessment experts provide resources from the basic to the sophisticated. Retrieved August 11, 2008, from <http://www.tribalcollegejournal.org>.**

This online tribal college assessment resource guide provides a list of assessment resources, which are intended to assist those who wish to further explore this important aspect of education.

**Northwest Indian College Assessment website:**  
<http://ww2.nwic.edu/faculty/assessment/>

This website provides access to various teaching, learning, and assessment materials, reports, and data. The NWIC assessment website is a working website for NWIC faculty who are developing course, program, and college outcomes. It provides links to NWIC's course evaluation website, graduate survey, and instructor peer review forms, as well as many reports, blank surveys, and survey results. Finally, it contains an assessment plan, assessment report, and assessment presentations.



## Appendix B

A WRITTEN COMMUNICATION RUBRIC<sup>17</sup>

Criteria	Level of Proficiency			
	Beginning (1)	Developing (2)	Accomplished (3) <sup>18</sup>	Exemplary (4)
<b>Outcome a: The student writes standard English</b>				
<b>1. Idea and content</b>	Writes with unclear purpose or central theme. Does not clearly define or support position on topic. Uses limited or disconnected details that disrupt the unity of the paper.	Partially focuses on topic with minimal or no support of position. Writing is basic, too general for the reader to develop a clear understanding.	Maintains clear focus throughout the paper with sufficient appropriate details indicating awareness, knowledge, and insight.	Writes clearly and with focus; relevant details support the central theme.
<b>2. Organization/ structure</b>	Writes with organization that is unclear or inappropriate to the thesis; lacks transitions between ideas.	Writes with some signs of logical organization; may include abrupt or illogical shifts and ineffective flow of ideas. Makes few transitions between ideas.	Supports thesis and purpose through organization and paragraphing; most transitions are appropriate, but sequence of ideas may need improvement. Reiterates introductory elements in conclusion.	Provides clear introduction and reinforcing conclusion. Orders writing logically with effective transitions, providing sufficient information in the appropriate places.
<b>3. Voice</b>	Writes without personality. Shows lack of commitment to topic, connection to the audience and to the purpose. Evokes no emotion in reader.	Writes without revealing own personality; writing is cautious. Commitment to topic, and connection to the audience and to the purpose are limited. Writing evokes limited emotion in reader.	Writes so that own personality pokes through; confidence and feeling fade in and out. Commitment to the topic is apparent, and connection to the audience and to the topic are appropriate. The writing evokes some emotion in the reader.	Writes expressing own personality, with confidence and feeling. Individual, powerful commitment to the topic is obvious, as are strong connections to the audience and to the purpose; evokes strong emotion in the reader.
<b>4. Word choice</b>	Chooses nonspecific or distracting words that limit meaning. May include slang and colloquialisms.	Chooses ordinary words using adequate verbs, nouns, adjectives, and phrases.	Chooses correct words that result in clarity.	Chooses interesting, specific and accurate words that contribute to communicating the writer's purpose.
<b>5. Sentence fluency</b>	Writes sentences containing unnecessary words that detract from the meaning. Constructs sentences that lack variety in beginning, length, and structure, and that lack rhythm and pattern when read aloud.	Writes sentences containing some unnecessary words but with fairly clear meaning. Provides some variety in sentence beginning, length and structure that follow a predictable pattern and rhythm when read aloud.	Includes words that are necessary for clear meaning. Varies beginning, length, and structure of sentences, which sound smooth and rhythmic when read aloud.	Correctly and creatively uses full variety of sentence structures. Sentences invite expressive reading.

<sup>17</sup> This example is from Northwest Indian College ([http://ww2.nwic.edu/faculty/assessment/DirectIndicators/NWICOOutcomes/nwic\\_outcomes.php](http://ww2.nwic.edu/faculty/assessment/DirectIndicators/NWICOOutcomes/nwic_outcomes.php)).

<sup>18</sup> Students are expected to perform at the "Accomplished (3)" level by the end of a 2-year degree and at the "Exemplary (4)" level at the end of a 4-year degree.

## A WRITTEN COMMUNICATION RUBRIC (Continued)

Level of Proficiency				
Criteria	Beginning (1)	Developing (2)	Accomplished (3)	Exemplary (4)
<b>Outcome a: The student writes standard English</b>				
<b>6. Writing conventions: Grammar/usage/spelling/punctuation</b>	Writes with a minimal grasp of standard writing conventions; numerous errors impair readability.	Writes with a basic grasp of the standard writing conventions; occasional errors may impair readability.	Writes with a good grasp of standard writing conventions: capitalization is proper; punctuation is smooth and enhances meaning; spelling and grammar are essentially correct.	Writes with a strong grasp of the standard writing conventions; all conventions are properly applied.
<b>7. Presentation/formatting</b>	Produces writing that looks untidy and does not follow basic formatting rules (e.g. margins, headers & sub headers).	Produces writing that looks fairly neat but violates some formatting rules.	Produces writing that looks neat but violates one or two formatting rules.	Produces clean, neat, and easily read document in which the form and presentation of the text enhance the written message.
<b>Outcome b: The student writes in a variety of text forms using various credible sources</b>				
<b>1. Audience awareness</b>	Shows little or no awareness of the audience or of the text form's requirements.	Writes as a novice attempting to please an expert.	Meets reader's needs with some skill, but is not consistently successful.	Writes in an individual, compelling, and engaging way, showing an awareness of and respect for the audience, and for the purpose of writing.
<b>2. Citation</b>	Neglects important sources. Overuses quotations or paraphrases, which substitute for writer's own ideas. May use source material without acknowledgement.	Uses relevant but limited and similar sources and/or the skillful combination of sources. Uses quotations and paraphrased text that may be too long and/or inconsistently referenced.	Uses sources to support, extend, and inform, but not to substitute for writer's own development of ideas. Does not overuse quotes, but may not always conform to required style manual.	Cites bibliographic information in assigned format. Combines material from a variety of sources, including personal observation, scientific data, authoritative testimony.

## Appendix C

### A CURRICULUM MAP FOR COLLEGE OUTCOMES

#### Example for an AA Degree

The curriculum map is an effective tool for determining where in the curriculum each of the college outcomes is being assessed. By listing all program or college course requirements, this simple matrix summarizes the level to which students are expected to master each of the outcomes in each of the required courses. The curriculum map provides an efficient and useful way to identify gaps in the program where outcomes may be neglected. The example below indicates that oral communication (skill 3a)—applies effective presentation skills—is not being assessed adequately in this curriculum.

"1" indicates courses that teach and assess this skill and expect students to be at the "Beginning" level (i.e., the pre-tests).

"2" indicates courses that teach and assess this skill and expect students to be at the "Developing" level.

"3" indicates courses that teach and assess this skill and expect students to be at the "Accomplished" level (i.e., the post-tests).

Program Required Courses	Tribal College Outcomes														
	1. Information Literacy				2. Mathematical Reasoning			3. Oral Communication		4. Written Communication		5. Native language, history, culture, worldview			
	a	b	c	d	a	b	c	a	b	a	b	a	b	c	
CMPS 101	1	1	1	1											
MATH 102/151					1	1	1								
SPCH 105/120								1	1						
ENGL 101										1	1				
LANG 101												1	1	1	
BIOL 104	2				2										
EDUC 110			2						2						
HIST 111						2				2			2		
HIST 112							2			2	2		2		
HMDV 110		2		2											
LANG 203									3			3		3	
ENGL 236										3	3				
NASD 205				3									3		
NASD 210	3	3	3												
POLS 225					3	3	3								

## Appendix D

### GRADES, ASSESSMENT, AND RUBRICS

#### Grades

The relationship between grades and assessment is not as straightforward as it might first appear. Typically, completion of a course, or receipt of a grade, does not itself provide evidence of learning or meeting an outcome (Strain, 2003). The fact that a student obtains an “A” in a course does not mean that he or she has gained understanding or knowledge as a result of the course. For instance, the student may have entered the course with the understanding or knowledge required to earn an “A.”

Grades do not necessarily measure how much students have learned due to a course; how much students know, value, or are able to do; or, if learning has occurred, what elements impacted their learning most (Center for the Study of Higher Education, 2002). Furthermore, because instructors and colleges determine grades in a variety of different ways, they cannot be used for the purpose of comparison.

Nonetheless, in a tribal college setting, it is acceptable to use course grades for assessment purposes under two circumstances. The first is when students move from developmental to college-level classes. The second is when students transfer from a two-year tribal college to a four-year university. In both these instances, grades may be used to assess successful transfer from one level to the next (Nichols, 2002; Barbara Walvoord, 2004). By comparing tribal college student’s performance at the next level (e.g., at a four-year university) with others at that level, the tribal college can get a sense of how well-prepared their students are and how effective their grading system is.

An effective grading process can serve several purposes. It can enhance evaluation of the student, extend communication between the instructor and student, motivate students to learn, organize course concepts, and be used to improve teaching (Barbara Walvoord & Anderson, 1998). Grading, however, is a complex process, is never totally objective, and can greatly affect student learning, both positively and negatively. It is a “socially constructed, context-dependent process” which, at its best, “can be a powerful tool for learning” (Barbara Walvoord & Anderson, 1998, p. 10).



## Rubrics

If the grading process is approached using rubrics (e.g., see Appendix B), where criteria are made explicit, are evaluated using a scale, and are used to foster improvement, then “the grading process is an excellent basis for direct assessment of learning” (Barbara Walvoord, 2004, p. 15). Rubrics articulate criteria that instructors use to evaluate a specific assignment, and these results can be used to communicate and compare aggregate results (Barbara Walvoord, 2004). As a result, instructors can determine specifically where students are having the most difficulty and whether, after adjusting teaching strategies, students improve on a specific criterion over quarters. Moreover, in terms of assessment, rubrics allow instructors to analyze grades and also make them public (Barbara Walvoord & Anderson, 1998).

In order to use the grading process for the direct assessment of learning, Walvoord (2004) advises instructors to ensure that the assessment tool actually measures the outcomes. The assessment tool must

state explicitly in writing the criteria for evaluating student work in sufficient detail to identify students’ strengths and weaknesses; develop systematic ways of feeding information about student strengths and weaknesses back to decision makers...and use that information for programmatic improvement (p. 15).

Using the grading process for the direct assessment of learning can be accomplished in a number of ways. For example, in a supportive faculty meeting environment, instructors can present their students’ assignments, the written criteria (see Appendix B), and the class’s aggregate scores compared to previous quarters for feedback (see Table 4, p. 50). Faculty can then make recommendations for improving student learning, and someone can take minutes of the meeting to record the exchange. The instructional changes that result from these sessions can later be documented.

*Table 4 Comparison of pre- and post-tests over time for a written communication outcome.<sup>19</sup>*

Criterion	Quarter													
	Fall 2006		Winter 2007		Spring 2007		Fall 2007		Winter 2008		Spring 2008		Average	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
1. Ideas and content	2.5	4.0	1.0	3.5	2.5	3.7	2.0	3.5	3.0	4.0	3.0	4.0	2.3	3.8
2. Organization/structure	1.5	2.0	2.0	2.5	2.3	3.0	2.0	3.2	2.2	3.1	2.2	3.0	2.0	2.8
3. Word choice	2.0	3.0	2.0	3.5	3.0	3.5	2.0	3.7	3.0	3.9	2.0	3.0	2.3	3.4
4. Writing conventions	2.3	3.7	3.0	4.0	3.0	4.0	3.0	4.2	3.0	4.4	3.0	3.7	2.9	4.0
5. Presentation/formatting	2.0	3.0	2.0	3.0	2.5	3.2	3.0	3.4	3.0	3.5	2.0	3.0	2.4	3.2
Average	2.1	3.1	2.0	3.3	2.7	3.5	2.4	3.6	2.8	3.8	2.4	3.3	2.4	3.4

Adapted from Walvoord (2004).

Table 4 illustrates how the grading process may be used for assessment purposes. In this example, instructors assessed the college outcome “writing standard English” over a number of quarters. The second criterion, organization and structure, had the lowest score in Fall 2006. During the next few quarters, the instructors focused more of their attention on this criterion, and results indicate modest improvement each quarter.

<sup>19</sup> This summary table is evaluating the college outcome writing standard English.

## Relationship Between Individual Student Grading and Assessment

Grades allow instructors to evaluate individual student performance by summarizing the level of a student’s achievement as it relates to a set of outcomes. Grades inform students about how well they perform in a class compared to other students, yet without clear and detailed rubrics they do not indicate in which areas the student is strong or weak (Palomba & Banta, 1999). For instance, in Table 5, although the final grades of all four students varied significantly, all were successful in demonstrating word choice criterion. Therefore, if we want to understand

*Table 5 Relationship between Individual Student Grading and Assessment*

Criterion	Student A	Student B	Student C	Student D	Average of Criterion
1. Ideas and content	5	3	4	3	3.75
2. Organization / structure	5	2	2	3	3
3. Word choice	5	5	5	5	5
4. Writing conventions: Grammar, spelling, punctuation	5	3	4	4	4
5. Presentation / formatting	4	2	3	3	3
<b>Total</b>	<b>24</b>	<b>15</b>	<b>18</b>	<b>18</b>	
<b>Grade</b>	<b>A</b>	<b>C</b>	<b>B</b>	<b>B</b>	

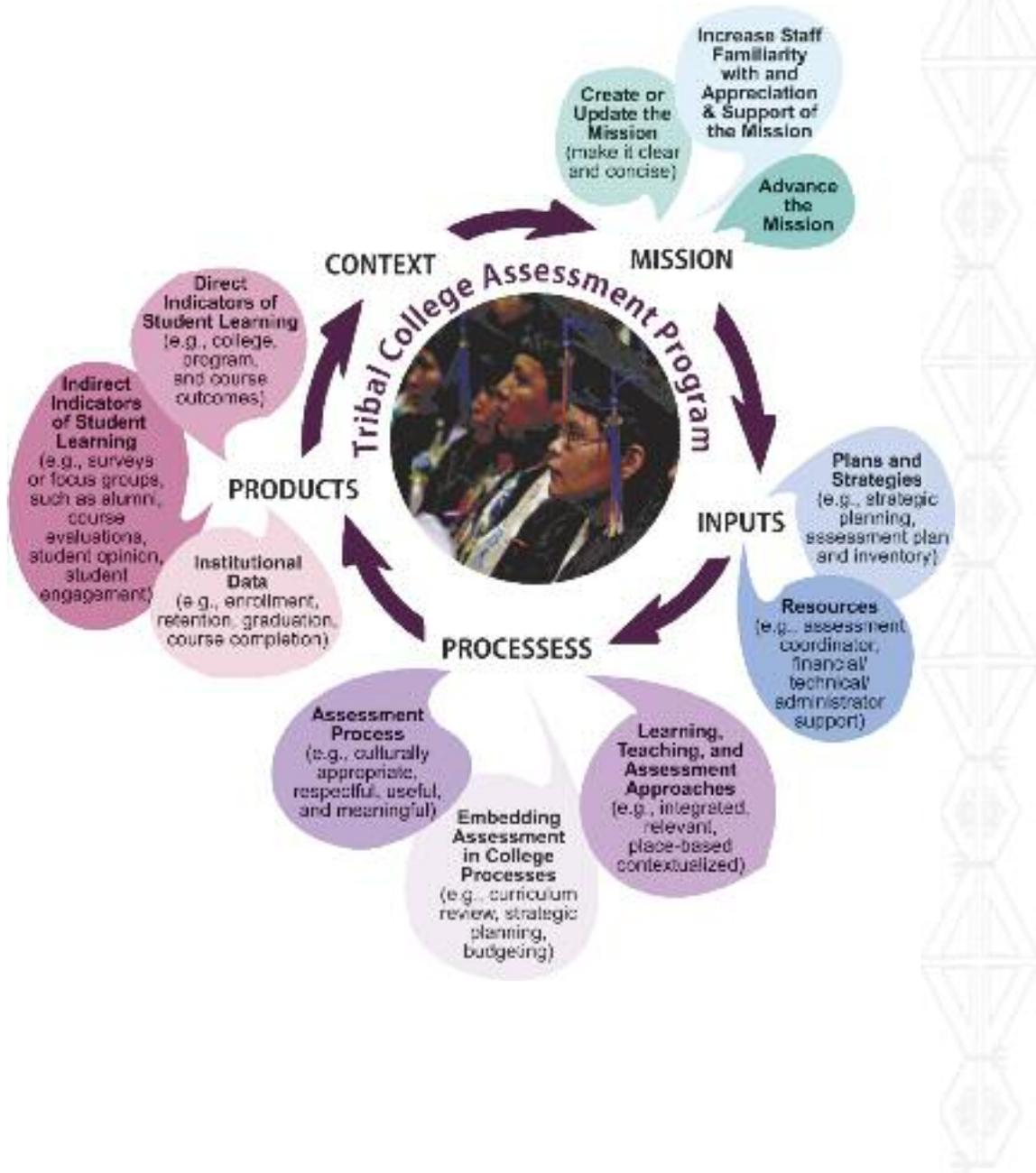
Adapted from J. Nichols and K. Nichols (2000, p. 43).

student achievement of a certain outcome, we can gather information specific to that outcome, repeatedly, over time (Nichols & Nichols, 2000).

Some scholars think grades may be inappropriate in Native American institutions, because grades tend to single out individuals from the group (Fixico, 2000). With the strong emphasis in Native American culture on cooperation, rather than competition, and the unity of the community and group, it may be important for tribal colleges to develop “learning-oriented” rather than “grade-oriented” students (Barbara Walvoord & Anderson, 1998). Nonetheless, because tribal colleges must respond to the demands of the universities to which their students transfer, it may be important for tribal colleges to determine ways to use the grading system to their advantage.

## Appendix E

### COMPONENTS OF A TRIBAL COLLEGE ASSESSMENT PROGRAM



## Appendix F

### A COLLEGE OUTCOMES ASSESSMENT PLAN<sup>20</sup>

Steps in the Outcome Process	Baseline # of College Outcomes (May 2008)	Goal (# of College Outcomes)				
		2008 – 2009	2009 – 2010	2010 – 2011	2011 – 2012	2012 – 2013
<b>(1) Development of the college outcomes process</b>						
a. Educate faculty and staff about assessment and students about the role of assessment in their education	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
b. Identify or refine college outcomes	5 college outcomes are identified	Reassess	Reassess	Reassess	Reassess	Reassess
c. Develop rubrics to measure the outcomes	0	All	Reassess	Reassess	Reassess	Reassess
d. Determine which courses will be used to reinforce and/or assess outcomes at entry, midway, and exit for each program (i.e., curriculum map)	0	All	Reassess	Reassess	Reassess	Reassess
e. Include college outcomes on syllabi	0	All	All	All	All	All
f. Collect the instructional activities, experiences, projects, or assignments in required courses that will be used to teach outcomes at entry, midway, and exit	0	0	1	2	3	4
g. Collect the activities, experiences, projects, essays, or assignments in required courses that will be used to assess outcomes at entry and exit	0	0	1	2	3	4
h. Attach anchor papers for each level of the rubric scale	0	0	1	2	3	4
<b>(2) Implementation of the college outcomes process</b>						
a. Assess students at entry and exit for college outcomes	0	0	0	1	2	3
b. Analyze the entry and exit assessment data	0	0	0	1	2	3
c. Present analysis to faculty and students and consult on the results	0	0	0	1	2	3
d. Use the data to improve and revise the curriculum	0	0	0	1	2	3
e. Document the process; create an assessment report about how the data were used to improve learning	0	✓	✓	✓	✓	✓

<sup>20</sup> This example is an excerpt from Northwest Indian College's Assessment plan (<http://ww2.nwic.edu/faculty/assessment/Plans/plans.php>).

## Appendix G

### A COLLEGE OUTCOMES ASSESSMENT REPORT for the College Outcome “Mathematical Concepts”<sup>21</sup>

Student Learning Outcomes	Method of Assessment*	Criteria for Success	Assessment Results** (Use actual data to describe annual performance.)	Faculty Interpretation of results	Use of Results*** (What change was made?)
<b>Students will be able to:</b>					
Apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situation.	Question(s) on locally designed and administered tests or embedded on final exams. (See explanation on next page.)	70% of students will meet or exceed expectations based on a scoring rubric.	28% of students met or exceeded expectations for SLO #1. (See explanation on next page.)	The criterion was not met.	(See explanation on next page.)
Represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.	Question(s) on locally designed and administered tests or embedded on final exams. (See explanation on next page.)	70% of students will meet or exceed expectations based on a scoring rubric.	44% of students met or exceeded expectations for SLO #2. (See explanation on next page.)	The criterion was not met.	(See explanation on next page.)
Expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.	Question(s) on locally designed and administered tests or embedded on final exams. (See explanation on next page.)	70% of students will meet or exceed expectations based on a scoring rubric.	38% of students met or exceeded expectations for (See explanation on next page.)	The criterion was not met.	(See explanation on next page.)
Use appropriate technology to enhance mathematical thinking, and understanding and to solve mathematical problems and judge the reasonableness of the results.	Question(s) on locally designed and administered tests or embedded on final exams. (See explanation on next page.)	70% of students will meet or exceed expectations based on a scoring rubric.	46% of students met or exceeded expectations for SLO #4. (See explanation on next page.)	The criterion was not met.	(See explanation on next page.)
Interpret mathematical models, such as formulas, graphs, tables, and schematics, and draw inferences from them.	Question(s) on locally designed and administered tests or embedded on final exams. (See explanation on next page.)	70% of students will meet or exceed expectations based on a scoring rubric.	51% of students met or exceeded expectations for SLO #5. (See explanation on next page.)	The criterion was not met.	(See explanation on next page.)

<sup>21</sup> This example is adapted from The University of Texas-Pan American (<http://ie.utpa.edu/SLOsCoreCurriculum.htm>).

**\* Means of Assessment**

- Instructors of Math 1340 (College Algebra) and Math 1401 (Calculus I) developed Math 1340 and Math 1401 assessment tests that were given to all students in their respective courses at the end of the semester.
- Instructors in each of Math 1341 (Business Algebra), Math 1356 (Trigonometry), Math 1357 (Precalculus), and Math/Stat 2330 (Elementary Statistics) developed common assessment questions that were embedded on their respective final exams.

**\*\* Assessment Results**

- The data was collected during the Spring 2006 semester from students taking the courses Math 1340 (College Algebra), Math 1341 (Business Algebra), Math 1356 (Trigonometry), Math 1357 (Pre-Calculus), Math 1401 (Calculus I), and Math/Stat 2330 (Elementary Statistics).
- The number of students and their method of selection were as follows:

Course	Method of Selecting Students	No. Students Assessed
Math 1340 (College Algebra)	Random sample of 30% of students still enrolled by the 14 <sup>th</sup> week of class.	159
Math 1341 (Business Algebra)	All students who took the final exam.	79
Math 1356 (Trigonometry)	All students who took the final exam.	89
Math 1357 (Pre-Calculus)	All students who took the final exam.	72
Math 1401 (Calculus I)	All students still enrolled by the 14 <sup>th</sup> week of class.	102
Math 2330 (Elementary Statistics)	All students who took the final exam.	296

**\*\*\* Use of Results.** The following table summarizes changes made:

Core Courses	Changes Made
All Courses	<ul style="list-style-type: none"> <li>• Core and Course SLOs must now be included on course syllabi of all core related courses.</li> <li>• Placement of students based on Accuplacer test scores was reviewed and adjusted.</li> <li>• New general education courses Contemporary Mathematics I/II have been proposed.</li> <li>• The Department of Mathematics has approved the recommendation that the core mathematics requirement be increased from 3 hours to 6 hours.</li> </ul>
Math 1340 (College Algebra)	<ul style="list-style-type: none"> <li>• Instructors are now being told to place greater emphasis on problems related to the application of mathematics.</li> <li>• College Algebra Project midterm exams now contain more conceptual questions requiring students to respond with written explanation.</li> </ul>
Math 1356 (Trigonometry) Math 1357 (Pre-Calculus)	<ul style="list-style-type: none"> <li>• These two courses are being combined into a single four-hour course beginning Fall 2006 with an improved syllabus.</li> </ul>
Math 1401 (Calculus I)	<ul style="list-style-type: none"> <li>• Calculus faculty members implemented a calculus seminar in the spring of 2006.</li> </ul>
Math/Stat 2330 (Elementary Statistics)	<ul style="list-style-type: none"> <li>• Statistics faculty members implemented statistics tutoring sessions in the spring of 2006.</li> </ul>

## Appendix H

### ALASKA STANDARDS FOR CULTURALLY RESPONSIVE SCHOOLS

#### CULTURAL STANDARDS FOR STUDENTS

The *Alaska Cultural Standards for Students* were developed by the Alaska Native Knowledge Network in 1998. They also were adopted by the State Board of Education & Early Development in the same year. The Cultural Standards are meant to enrich the Content Standards and provide guidelines for nurturing and building in students the rich and varied cultural traditions that continue to be practiced in communities throughout Alaska. The standards are broad statements of what students should know and be able to do as a result of their experience in a school that is aware of and sensitive to the surrounding physical and cultural environment (Assembly of Alaska Native Educators, 1998).

Alaska Standards for Culturally Responsive Schools were also developed for educators, schools, curriculum, and communities by Alaska Native educators to provide a way for schools and communities to examine the extent to which they are attending to the educational and cultural well being of the students in their care. (See <http://www.ankn.uaf.edu/publications/culturalstandards.pdf>).

**A. Culturally knowledgeable students are well grounded in the cultural heritage and traditions of their community**

Students who meet this cultural standard are able to:

1. Assume responsibilities for their role in relation to the well-being of the cultural community and their lifelong obligations as a community member
2. Recount their own genealogy and family history
3. Acquire and pass on the traditions of their community through oral and written history
4. Practice their traditional responsibilities to the surrounding environment
5. Reflect through their own actions the critical role that the local heritage language plays in fostering a sense of who they are and how they understand the world around them



6. Live a life in accordance with the cultural values and traditions of the local community and integrate them into their everyday behavior
7. Determine the place of their cultural community in the regional, state, national, and international political and economic systems

**B. Culturally knowledgeable students are able to build on the knowledge and skills of the local cultural community as a foundation from which to achieve personal and academic success throughout life**

Students who meet this cultural standard are able to:

1. Acquire insights from other cultures without diminishing the integrity of their own
2. Make effective use of the knowledge, skills, and ways of knowing from their own cultural traditions to learn about the larger world in which they live
3. Make appropriate choices regarding the long-term consequences of their actions
4. Identify appropriate forms of technology and anticipate the consequences of their use for improving the quality of life in the community

**C. Culturally knowledgeable students are able to actively participate in various cultural environments**

Students who meet this cultural standard are able to:

1. Perform subsistence activities in ways that are appropriate to local cultural traditions
2. Make constructive contributions to the governance of their community and the well-being of their family
3. Attain a healthy lifestyle through which they are able to maintain their social, emotional, physical, intellectual, and spiritual well-being
4. Enter into and function effectively in a variety of cultural settings

**D. Culturally knowledgeable students are able to engage effectively in learning activities that are based on traditional ways of knowing and learning**

Students who meet this cultural standard are able to:

1. Acquire in-depth cultural knowledge through active participation and meaningful interaction with Elders
2. Participate in and make constructive contributions to the learning activities associated with a traditional camp environment
3. Interact with Elders in a loving and respectful way that demonstrates an appreciation of their role as culture-bearers and educators in the community
4. Gather oral and written history information from the local community and provide an appropriate interpretation of its cultural meaning and significance
5. Identify and utilize appropriate sources of cultural knowledge to find solutions to everyday problems
6. Engage in a realistic self-assessment to identify strengths and needs and make appropriate decisions to enhance life skills

**E. Culturally knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them**

Students who meet this cultural standard are able to:

1. Recognize and build upon the interrelationships that exist among the spiritual, natural, and human realms in the world around them, as reflected in their own cultural traditions and beliefs as well as those of others
2. Understand the ecology and geography of the bioregion they inhabit
3. Demonstrate an understanding of the relationship between world view and the way knowledge is formed and used
4. Determine how ideas and concepts from one knowledge system relate to those derived from other knowledge systems

5. Recognize how and why cultures change over time
6. Anticipate the changes that occur when different cultural systems come in contact with one another
7. Determine how cultural values and beliefs influence the interaction of people from different cultural backgrounds
8. Identify and appreciate who they are and their place in the world

## References

- AIHEC. 2008. WINHEC-USA. Retrieved August 12, 2008, from <http://www.aihec.org/programs/WINHEC-USA.cfm>
- Alfred, R., Ewell, P., Hudgins, J., & McClenney, K. 2000. *Core Indicators of Effectiveness for Community Colleges: Toward High Performance*. 2d ed. Washington, D.C.: Community College Press, American Association of Community Colleges.
- Alverno College. 2004. Awards and recognition. Retrieved April 2, 2004, from [http://www.alverno.edu/about\\_alverno/awards\\_recognition.html](http://www.alverno.edu/about_alverno/awards_recognition.html)
- Angelo, T. 1995. Assessment. *American Association for Higher Education Bulletin* 79 (November).
- Angelo, T., & Cross, K. P. 1993. *Classroom Assessment Techniques*. 2d ed. San Francisco: Jossey-Bass.
- Banta, T. 1999. *Assessment in Community Colleges: Setting the Standard for Higher Education?* Boulder: National Center for Higher Education Management Systems.
- Banta, T., ed. 2004. *Community College Assessment*. San Francisco: Jossey-Bass.
- Biggs, J. 1999. *Teaching for Quality Learning at University: What the Student Does*. Philadelphia: Society for Research into Higher Education and Open University Press.
- Blanchard, M., McKnight, A., Lui-Chivizhe, L., Wray, D., French, K., Sherwood, J., et al. 2000. Panel presentation report. Creating an Optimistic Future for Indigenous Research in Education: Re-visioning Both Outcome and Process. Sydney: Australian Association for Research in Education.
- Boyer, P. 2003. Building Tribal Communities: Defining the Mission and Measuring the Outcomes of Tribal Colleges. Chap. 7:136-147 in *The Renaissance of American Indian Higher Education: Capturing the Dream*, ed. M. Benham & W. Stein. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bresciani, M. J. 2002. Outcomes Assessment in Student Affairs: Moving beyond Satisfaction to Student Learning and Development. Retrieved February 26, 2004, from [http://www.naspa.org/prodev/academy/bresciani\\_outcomes.doc](http://www.naspa.org/prodev/academy/bresciani_outcomes.doc)

- Center for the Study of Higher Education. 2002. *The NCTLA Assessment Institute Resource Notebook*. University Park: Pennsylvania State University.
- Crazy Bull, C. 2006. Making Dreams Happen: Accreditation as Part of the Journey. Presentation. Lummi Nation: Northwest Indian College (October).
- Diaz-Lefebvre, R. 2003. In the Trenches: Assessment as if Understanding Mattered. *Learning Abstracts World Wide Web Edition* (September) 6:8.
- Ewell, P. 1997. Identifying Indicators of Curricular Quality. *Handbook of the Undergraduate Curriculum: A Comprehensive Guide to Purposes, Structure, Practices, and Change*, eds. J. Gaff, J. Ratcliff and Associates. San Francisco: Jossey-Bass.
- Ewell, P. 2002. Perpetual Movement: Assessment after Twenty Years. Paper presented at the American Association for Higher Education Assessment, Boston.
- Fixico, D. 2000. *The Urban Indian Experience in America*. Albuquerque: University of New Mexico Press.
- Gipps, C. and Stobart, G. 2003. Alternative Assessment. Sec. 6, no. 26 in *International Handbook of Educational Evaluation*, eds. T. Kellaghan and D. L. Stufflebeam. Boston: Kluwer Academic Publishers.
- Green, J. and Castelli, P. 2002. *Outcomes Assessment in Higher Education*. Overland Park, KS: International Assembly for Collegiate Business Education.
- Karlberg, A. M. 2007. Assessment in a Tribal College Context: A Case Study of Northwest Indian College. Retrieved August 11, 2008, from [http://ww2.nwic.edu/faculty/assessment/AssessmentResources/assessment\\_resources.php](http://ww2.nwic.edu/faculty/assessment/AssessmentResources/assessment_resources.php). Ph.D. diss. (unpublished). Vancouver: University of British Columbia.
- King, J. A. 2004. Tikkun Olam: The Roots of Participatory Evaluation. Chap. 22 in *Evaluation Roots: Tracing Theorists' Views and Influences*, ed. M. C. Alkin. Thousand Oaks: Sage Publications.

- Knight, W. E., ed. 2003. *The Primer for Institutional Research*. Tallahassee: Association for Institutional Research.
- Lieberman, D. 2005. Student Learning Assessment: Value-added and Meaningful. Paper presented at conference, Collaboration for the Advancement of Teaching and Learning Assessment: Informing Teaching, Learning, and Institutional Change. Bloomington, MN.
- Maki, P. 2002. Using Multiple Assessment Methods to Explore Student Learning and Development Inside and Outside of the Classroom. Retrieved February 26, 2004, from <http://www.naspa.org/netresults/PrinterFriendly.cfm?ID=558>
- Maki, P. 2004. *Assessing for Learning: Building a Sustainable Commitment across the Institution*. Sterling, VA: Stylus Publishing.
- Maki, P. 2005. Strategic Approaches for Grounding Institution-level Assessment in Collaborative Practices. Paper presented at conference, Collaboration for the Advancement of Teaching and Learning Assessment: Informing Teaching, Learning, and Institutional Change. Bloomington, MN.
- Marker, M. 2000. "Economics and Local Self-determination: Describing the Clash Zone in First Nations Education." *Canadian Journal of Native Education* 24 (1): 30-44.
- Mentkowski, M., Rogers, G., Doherty, A., and Loacker, G. 2000. *Learning that Lasts: Integrating Learning, Development, and Performance in College and Beyond*. San Francisco: Jossey-Bass.
- Nichols, J. 2002. *A Practitioner's Handbook for Institutional Effectiveness and Student Outcomes Assessment Implementation*. 3d ed. New York: Agathon Press.
- Nichols, J. and Nichols, K. 2000. *The Departmental Guide and Record Book for Student Outcomes Assessment and Institutional Effectiveness*. 3d ed. New York: Agathon Press, .
- Northwest Commission on Colleges and Universities. 2003. *Accreditation Handbook*. Redmond, WA: Commission on Colleges and Universities.
- Northwest Commission on Colleges and Universities. 2005. About NWCCU. Retrieved April 12, 2005, from <http://www.nwccu.org/>

- Ortiz, A. M. and HeavyRunner, I. 2003. Student Access, Retention, and Success: Models of Inclusion and Support. Chap. 11 in *The Renaissance of American Indian Higher Education: Capturing the Dream*, eds. M. Benham and W. Stein. Mahwah, NJ: Lawrence Erlbaum Associates.
- Palomba, C. and Banta, T. 1999. *Assessment Essentials: Planning, Implementing, and Improving Assessment in Higher Education*. San Francisco: Jossey-Bass.
- Pellegrino, J. W., Chudowsky, N., and Glaser, R., eds. 2001. *Knowing What Students Know: The Science and Design of Educational Assessment*. Washington, D.C.: National Academy Press.
- Seybert, J. A. 2003. *Community College Assessment Strategies*. Overland Park, KS: Johnson County Community College.
- Smith, L. 1999. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books.
- Strain, S. 2003. "Keeping the Faces of the Students in the Data." *Assessment Update* 15 (2):1-2 & 14-15.
- Stufflebeam, D. L. 2001. *Evaluation Models: New Directions for Evaluation* 89 (spring).
- Swisher, K. and Tippeconnic, J. W., eds. 1999. Research to Support Improved Practice in Indian Education. Chap. 13 in *Next Steps: Research and Practice to Advance Indian Education*. Charleston, WV: Clearinghouse on Rural Education and Small Schools, ERIC, ED 427915.
- Walvoord, B. 2004. *Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education*. San Francisco: Jossey-Bass.
- Walvoord, B. and Anderson, V. 1998. *Effective Grading: A Tool for Learning and Assessment*. San Francisco: Jossey-Bass.
- Weinstein, D. 2003. *Assessment at Lower Columbia College*. Paper presented at conference, American Association of Higher Education Assessment, Seattle, WA.
- World Indigenous Higher Education Consortium. 2006. WINHEC. Retrieved December 29, 2006, from <http://www.win-hec.org/docs/pdfs/winhec%20profile%202006.pdf>



AIHEC is the collective spirit and unifying voice of our  
nation's Tribal Colleges and Universities



121 Oronoco Street, Alexandria, VA 22314  
703.838.0400 • Fax: 703.838.0388 • [www.aihec.org](http://www.aihec.org)

American Indian Higher Education Consortium (AIHEC) is the collective spirit and unifying voice of our nation's Tribal Colleges and Universities (TCUs). AIHEC provides leadership and influences public policy on American Indian higher education issues through advocacy, research, and program initiatives; promotes and strengthens Indigenous languages, cultures, communities, and tribal nations; and through its unique position, serves member institutions and emerging TCUs.