OAS Announces Campus Assessment Network

Assessment practices are growing all over the NIU campus and increasingly more individuals have assessment as a substantial portion of their job duties. To support these individuals and provide networking opportunities for them across campus, the Office of Assessment Services (OAS) has taken the lead in developing the Campus Assessment Network (CAN).

The primary purpose of CAN is to bring together assessment professionals and other interested NIU parties to:

1) Communicate and network with one another on assessment issues;

2) Share information and assessment tools to increase effectiveness in assessment practices; and

3) Develop a shared assessment culture and common messages of assessment to better engage and support the assessment needs of the broader NIU community.

CAN meets five times a year. The next meeting will be held in February 2007. If you are interested in attending this or any other future meeting of CAN, please contact Carolinda Douglass, Assessment Coordinator. She may be reached at 753-7120 or cdoug@niu.edu.
What is the best way to measure a student learning outcome?

There is no simple answer to this question. The best way to measure a student outcome depends upon a number of things including 1) the nature of the outcome, 2) the methods that are available to demonstrate the outcome and 3) the perspectives that are considered essential in evaluating the outcome.

The nature of the outcome matters. For example, if the outcome is to be able to perform as professional actors as demonstrated by a set of specified criteria, students are likely to be asked to give a live performance in front of an audience to assess this outcome. In contrast, if the outcome is to be able to accurately and efficiently solve a mathematical equation, a written exam may be the likely form for assessment of this outcome. Likewise, mathematics students may submit their responses electronically or work with an interactive software application that allows multiple responses to the equation or changes in the parameters of the equations to create further challenges. The limits to the methods available for assessment, of course, sometimes depend upon our available resources but a creative approach toward assessment can allows for multiple new assessment opportunities.

Measurement of learning also depends upon whose perspective is essential. Many individuals are concerned with the learning outcomes of students and many assessments include multiple perspectives. For example, in the case of theater students, faculty will assess his performance, outside professionals may also assess it, and students themselves may be asked to reflect upon their own professional development to assess learning outcomes. For the students studying mathematics, the faculty’s assessment may be most valuable in verifying that they can accurately and efficiently solve an equation. Understanding which perspectives are essential to assessing the student learning outcome is key to determining how to set up the measurement(s) for that outcome.
Update on General Education Assessment

In the academic year 2004-2005, the General Education Committee (GEC) developed a comprehensive assessment plan which was adopted and put into practice in 2005-2006. The plan assesses the four NIU general education goals:

1) Students develop habits of writing, speaking, and reasoning necessary for continued learning.

2) Students develop an ability to use modes of inquiry across a variety of disciplines in the humanities and the arts, the physical sciences and mathematics, and the social sciences.

3) Students develop an understanding of the interrelatedness of various disciplines by integrating knowledge from several disciplines and applying that knowledge to an understanding of important problems and issues.

4) Students develop social responsibility and preparation for citizenship through global awareness, environmental sensitivity, and an appreciation of cultural diversity.

Along with the GEC’s ongoing review of these goals in its courses, it now conducts a cyclical review of each goal using data available at the university level. For example, in the past two years, data were gathered and are now being reviewed that pertain to goals 1 and 2. Data from the University Writing Project has shown that NIU students in these samples exhibit a wide range of writing abilities in assessments in their junior and senior years. Data from a small pilot study on technology skills showed that a sample of UNIV 101 course students have solid basic computing skills (in the areas of use of Word, PowerPoint and Windows operating system/web skills) as entering freshmen. Data from a focus group of students in general education courses demonstrated that students believe taking general education courses improved their speaking and analytical skills. These findings reinforce the importance of the impact general education has on NIU students.

Your Contribution is Welcome

What assessment methods have worked well for you? What findings have helped you modify your program? Toolkit would love to print your assessment tips or success story! We’re looking to share the wisdom that we each develop at home, making the work of assessment more productive. If you’d like material to be considered for inclusion in a future edition of Toolkit, submit a Word document of no more than 300 words as an email attachment to cdoug@niu.edu.
DID YOU KNOW?

Undergraduate Alumni Survey

The Office of Assessment Services conducted the baccalaureate survey for the class of 2005. Respondents felt positive about their education at NIU:

- 94 percent found that, in their major, professors were accessible outside of class
- 96 percent felt that their major professors’ expectations for the quality of student work was high
- 95 percent thought the amount of time it took to complete their degree was reasonable
- 95 percent expressed a positive attitude toward their major

Alumni were also pleased with how NIU prepared them for life after graduation:

- 92 percent described their overall university experience and courses as helpful in developing their ability to think analytically — to make logical inferences, and reach correct conclusions
- 90 percent indicated that their overall university experience and courses were helpful in developing their ability to plan and manage projects
- 90 percent said that their degree prepared them for their present job

Overall, survey respondents had good things to say about the university:

- 95 percent stated they would recommend NIU to their family and friends and…
- 95 percent indicated a positive attitude toward NIU.

Upcoming Assessment Events

7th Annual Assessment Conference at Texas A&M:
Building Assessment Capacity: Foundation to Fruition
College Station, TX, February 22 - 23, 2007

The New Mexico Higher Education Assessment and Retention (NMHEAR) Conference 2007
Making a Difference in Student Learning: Assessment as a Core Strategy
Lisle, IL, March 21-23, 2007

This Higher Learning Commission workshop reflects the Commission’s new criteria, and is designed for and limited to teams of 3-8 people. This workshop will fill quickly, so register early.

Best Assessment Processes IX
Terre Haute IN, April 13 - 14, 2007

2007 NCSU Undergraduate Assessment Symposium
Systematic, Systemic and Sustainable Assessment: A Process of Inquiry
Cary, NC, April 13 - 15, 2007

The Symposium encourages higher education professionals to strive for excellence in academia by promoting a culture of learning and improvement through assessment. Develop your resources for sustainable assessment and share your questions and ideas with a wide range of colleagues.

2007 HLC Annual Meeting: Leading for the Common Good
Chicago, IL, April 20-24, 2007

The Higher Learning Commission’s Annual Meeting offers a broad range of sessions and services, including an Accreditation Share Fair. More than 3,600 administrators and faculty attended the 2006 Annual Meeting.
How to Measure Problem-Solving Ability: The Problem-Solving Analysis Protocol (P-SAP)

Real world problem solving skills have been identified as an important part of success beyond the world of academia (Sternberg, 1997). In addition, many are asking whether undergraduate education is really teaching the skills necessary to address real world problems (Hersh & Merrow, 2005). As awareness of the importance of teaching real-world problem solving in higher education increases, problem-solving skills will become a high priority in general education outcome assessment. Authentic, real world assessments of critical thinking, problem solving, and knowledge transfer, however, are few.

The Problem-Solving Analysis Protocol (P-SAP) is a written problem-solving protocol and rubric for assessing problem solving skills that can be easily integrated into the normal activities of a class. The tool was created by the authors (Steinke & Fitch, 2003) based on the work of researchers in service-learning on cognitive outcomes (Eyler & Giles, 1999) and the reflective judgment framework of intellectual development (King & Kitchener, 1994). The problem-solving protocol presents a real-world issue to the student that is directly relevant to the application of material the student is learning in the course, and by simply changing the issue the protocol can be used in a wide variety of classes. Students answer a series of questions about the causes, consequences and solutions for a problem that arises from the issue. The problem-solving protocol can be used in class as a graded assignment or exam question or as a class exercise to start discussion.

The P-SAP allows two different types of coding for assessment purposes. First, whether the protocol is used as a graded assignment or not, faculty in the discipline can score a sample of protocols for students’ comprehension and application of content knowledge. Many departmental program assessment plans include objectives about students’ ability to apply knowledge but faculty members have difficulty identifying how to assess application. Second, an interdisciplinary team of faculty can also code the same protocol for more general problem-solving skills as related to other intellectual abilities such as critical thinking, knowledge transfer and perspective taking. This second application can be scored using the P-SAP rubric.

The P-SAP rubric provides scoring criteria for two dimensions (locus/source and complexity) for each of the four questions in the protocol (questions about problem, cause, solution and analysis of solution). The P-SAP has been tested at several institutions in Iowa, Michigan and Illinois and the rubric has demonstrated high inter-rater reliability (.75-.94 range) and good construct validity with intellectual development and cognitive learning measures.

References

— Pamela Steinke, Ph.D., North Carolina State University
— Peggy Fitch, Ph.D., Central College
## TOOL OF THE MONTH

The Problem-Solving Analysis Protocol (P-SAP) Rubric

Toolkit is pleased to present the Rubric for Coding Problem-Solving Analysis Protocol (P-SAP) (Revised from Eyler and Giles, 1999; Steinke and Fitch, 2003). The first two tables appear below. The remainder will be presented as a running feature in future issues.

### Problem Analysis Locus (1st question)

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>no problem analysis; does not view the issue as a problem; answer given does not address problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>problem defined in terms of individual mental state/individual behavior; focus of problem on individuals who may make up a group; if the group is mentioned the focus is on individual mental states, behaviors and characteristics of the individual group members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>problem defined in terms of group of which individual is a member (e.g., family, nation, cultural group, occupation); focus of problem on group/shared characteristics; identifies subgroups that have different consequences; reference to characteristics of group of which the individual is a member</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>problem defined in terms of broader system (e.g., political, educational, financial, occupational); system identified but not developed/explained/elaborated; reference to characteristics of broader systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>problem defined in terms of broader system and further developed/explained/elaborated; both systemic and individual mentioned but not developed/explained/elaborated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>problem defined in terms of both individuals and systems with both developed/explained/elaborated and integrated with causal connections between the systemic and individual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Problem Analysis Complexity (1st question)

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>no problem analysis; does not view as a problem; answer given does not address problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low: simple; no context; one reason given even if that reason has two related parts (e.g., occupation as defined by both work and school, affects two sides of the same issue, affects development of social and cognitive); low elaboration of a single reason</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium: more elaboration of single reason (e.g., statement about the cause or the consequence, or an example); at least two very different reasons identified but not elaborated with different reasons either representing two different perspectives or clear differences within the same perspective (e.g., both short-term and long-term, both individual and social); different reasons identified for different subgroups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High: at least two different reasons explained/elaborated and situated in context with causal connections either between or within the reasons; multiple perspectives developed/explained/elaborated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Learning Objectives Development Workshop

Are you looking for ways to improve your course or program learning objectives? Why not consult an expert? Dr. Stephen Zerwas, Director of the Office of Academic Assessment at the University of North Carolina, Greensboro, will return to NIU on March 23, 2007. His full-day workshop will cover the development of student learning objectives at both the course and program level. Sponsored by the Office of Assessment Services and the Faculty Development and Instructional Design Center, the workshop will include both lecture and hands-on application of the principles of developing student learning objectives. Dr. Zerwas will also discuss the link between learning outcomes and course-embedded assessment activities.

Dr. Zerwas has served higher education for over 20 years as a faculty member and student affairs administrator. His numerous presentations and workshops have addressed development of student learning objectives, the Student Learning Imperative, and assessment techniques.

He has also developed the Objective Builder, a computer application for developing student learning objectives, which he will demonstrate as part of this workshop. Workshop participants will be able to use the tool free-of-charge for 90 days.

Faculty and staff can register for the workshop online, by phone at (815) 753-0595, or via email. Include the participant’s name as it should appear on the certificate, title, NIU Employee ID, classification, department, email, phone, and any special accommodations needed. See you there!

“Looking at Learning Objectively”

an encore presentation
by Dr. Stephen Zerwas

Date: March 23, 2007
Time: 8:00 a.m. - 4:30 p.m.
Location:
Holmes Student Center Sky Room