Few would argue that the ability to think critically is a cornerstone of higher education. The historical roots of critical thinking can be traced back to Socrates, who helped students to identify and rectify inconsistent and irrational thought processes including confused meanings, inadequate evidence, contradictory beliefs and empty rhetoric (Critical Thinking Community, 2006). While the understanding of critical thinking has evolved greatly over the past 2,500 years, the core idea that individuals should question and strengthen the underlying reasoning of knowledge remains strong.

However, critical thinking can be very difficult to measure. In part, this is because critical thinking is an ongoing process rather than a recognizable outcome. The state of critical thinking means that an individual is continually questioning assumptions, considering context, creating and exploring alternatives and engaging in reflective skepticism (Brookfield, 1987). By their very nature, critical thinking skills are progressive and create change in an individual over time.

Fortunately, tools have been developed to capture this difficult to measure but important key element. One such tool is the General Education Critical Thinking Rubric used by Northeastern Illinois University (NEIU). This tool was first developed at Washington State University and adapted by Drs Roger Gilman and John Casey for use at NEIU. The rubric allows faculty to rate students on a four point scale including no/limited proficiency, some proficiency, proficiency, and high proficiency on 10 quality criteria relevant to critical thinking. The criteria are: 1) identifying and explaining issues, 2) distinguishing types of claims, 3) recognizing stakeholders and contests, 4) considering methodology, 5) framing personal responses and acknowledging other perspectives, 6) reconstructing arguments, 7) interpreting content, 8) evaluating assumptions, 9) evaluating evidence and 10) evaluating inferences (NEIU, 2006). This rubric could be used with a variety of course assignments including written assignments, oral presentations, portfolio review, self-reflection and much more. The use of this rubric with multiple assignments over time could go a long way toward measuring the development of the critical thinking process among our students.
Standardized Testing Weighed for Higher Education

In the fall of 2005, U.S. Secretary of Education Margaret Spellings announced the formation of the Secretary of Education’s Commission on the Future of Higher Education. According to the website of the Department of Education, the “commission is charged with developing a comprehensive national strategy for postsecondary education.” In order to fulfill that charge, according to the New York Times, the commission is currently considering “whether standardized testing should be expanded into universities and colleges to prove that students are learning and to allow easier comparisons on quality.”

In a memo dated January 24, 2006, Commission Chair Charles Miller writes (permission to reprint granted by the U.S. Department of Education):

“There is gathering momentum for measuring through testing what students learn or what skills they acquire in college beyond a traditional certificate or degree.

“Very recently, new testing instruments have been developed which measure an important set of skills to be acquired in college: critical thinking, analytic reasoning, problem solving, and written communications.

“The Commission is reviewing promising new developments in the area of student testing, which indicate a significant improvement in measuring student learning and related institutional performance. Three independent efforts have shown promise [shown at left].

“An evaluation of these new testing regimes provides evidence of a significant advancement in measuring student learning — especially in measuring the attainment of skills most needed in the future.

“Furthermore, new educational delivery models are being created, such as the Western Governors University, which uses a variety of built-in assessment techniques to determine the achievement of certain skills being taught, rather than hours-in-a-seat. These new models are valid alternatives to the older models of teaching and learning and may well prove to be superior for some teaching and learning objectives in terms of cost effectiveness.”

Later, in the same memo, Dr. Miller adds: “What is clearly lacking is a nationwide system for comparative performance purposes, using standard formats. Private ranking systems, such as the U.S. News and World Report ‘Best American Colleges’ publications, use a limited set of data, which is not necessarily relevant for measuring institutional performance or providing the public with information needed to make critical decisions.”

“The Commission, with assistance of its staff and other advisors and consultants, is attempting to develop the framework for a viable database to measure institutional performance in a consumer-friendly, flexible format.”

Dr. Carolinda Douglas, acting coordinator of the Office of Assessment Services, commented that such a conversation at the federal level underscores the need for proactive assessment efforts. “Most units have assessment plans in place,” she said. “But many are still in the process of putting those plans into practice, and utilizing the [assessment] findings to inform curricular and policy decisions.”

Dr. Miller is seeking feedback. NIU faculty are encouraged to read the memo in its entirety and respond to the Commission. Toolkit also welcomes letters to the editor.
DID YOU KNOW?

Undergraduate Alumni Survey Results

The Office of Assessment Services conducted NIU’s 2004 Undergraduate Degree Alumni Survey one year after the group’s graduation. Respondents felt positive about their education at NIU:

- 96 percent found that, in their degree major, professors were accessible outside of class
- 97 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
- 94 percent expressed a positive attitude toward their degree major

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

- 90 percent indicated that their overall university experience and courses were helpful in developing an understanding of how their personality, skills and abilities fit well into their chosen major/field
- 97 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 said that their degree prepared them for their present job

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

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

UOTC Exit Survey Findings

Each year during the spring semester, the University Office of Teacher Certification conducts an Exit Survey of student teachers, their NIU supervisors, and their cooperating teachers. The Illinois Professional Teaching Standards provide a conceptual framework for the surveys; each of the fifteen items is based on a given standard. The survey provides important feedback to programs regarding the degree to which NIU’s teacher candidates are prepared for the practice of teaching. These data will also provide an important piece of evidence for the upcoming visit from the National Council for the Accreditation of Teacher Education.

Highlights from the Spring 2005 survey are now available. On a scale of 1-5 where 1 = not at all prepared and 5 = very well prepared, student teachers’ abilities were rated as follows.

- Preparation to use an appropriate variety of oral, written, and visual communication in his/her teaching: 4.27
- Teaching the subject area of [the student teacher’s] content knowledge 4.25
- Creation of learning environments that promote active learning appropriate to the discipline(s): 4.22

Over the past three years, two items have consistently ranked highest in the survey findings:

Direct Vs. Indirect Assessment

Q. What is a “direct measure” of student learning?
A. Direct measures assess student performance of identified learning outcomes, such as mastery of a lifelong skill. They require standards of performance. Examples of direct assessments are: pre/post test; course-embedded questions; standardized exams; portfolio evaluation; videotape/audiotape of performance; capstone course evaluation.

Q. What is an “indirect measure” of student learning?
A. Indirect measures assess opinions or thoughts about student knowledge, skills, attitudes, learning experiences, and perceptions. Examples of indirect measures are: student surveys about instruction; focus groups; alumni surveys; employer surveys. Other examples include interviews, graduation rates, job placement data, and feedback from advisory boards.

As institutions of higher education seek to demonstrate the value of degree-granting programs, direct measures of student learning are most important. Here are some ways in which programs can put direct assessment methods into practice:

- Students in a Spanish language program are interviewed at the end of their second year. A panel of three faculty conduct the interviews in Spanish, and each rates each student according to a standard scoring guide that rates students' proficiency in Spanish as well as knowledge of Spanish literary, historical and cultural traditions. At the bottom of each score card, faculty note particular areas of strength and weakness within each category. After the interviews are completed, faculty compare observations, analyze the scores, and discuss common areas of strength and weakness observed.

- A general education - math program develops six outcomes for intermediate algebra and eight outcomes for college algebra. The final exam includes common problems that directly measure the students’ ability to perform the desired outcomes. The problems are used in every intermediate and college algebra course offered. Common grading criteria are outlined in the course syllabi.

- Students in an occupational program collect and maintain a portfolio of materials throughout their occupational coursework, and to write a short summary for each course. Specific questions about learning styles and experiences are provided to help guide their reflections. They write a full paper about their experiences in the occupational program, tracing the main themes and content of their learning experience. In addition, each student is asked to design and carry out a research project on a topic that extends their learning experience. Three faculty independently rate the reflective and research papers, using guidelines and specific questions about how the students' performance reflects each of the program's knowledge or skill goals.

Toolkit thanks the Community College of Aurora, Colorado, for permission to reprint excerpts from their Assessment page.
Autumn 2006 Assessment Conferences

Assessment for Excellence
Northumbria University, County Durham, UK
August 30 - September 1, 2006

Northumbria co-hosts this relatively small international conference with the Special Interest Group (SIG) on Assessment and Evaluation, a component of the European Association for Research on Learning and Instruction (EARLI). U.S. participants are welcome. Keynote speakers will hail from Israel, the UK, and New Zealand. Sub-topics will include:

- Excellence in assessment practices
- Promoting excellence in learning
- Achieving excellence with accountability

Location: Redworth Hall, County Durham, UK.

As evidenced by the number of proposals received, organizers expect high demand for places.

Library Assessment Conference:
Building Effective, Sustainable, Practical Assessment
Charlottesville, Virginia
September 25-27, 2006

Set in historic Charlottesville, the conference will focus on using data to improve library service, and will include sessions on customer surveys, focus groups, learning outcomes, organizational climate surveys, performance metrics, evaluating electronic services and resources, and related marketing and management issues.

Sponsors: the Association of Research Libraries, the University of Virginia Library, and the University of Washington Libraries.

Registration: May 1 - July 1.

The 2006 Assessment Institute
The Westin Indianapolis, Indianapolis, Indiana
October 29 - 31, 2006

Each year, Indiana University-Purdue University Indianapolis (IUPUI) hosts a national institute with the purpose of enabling participants to:

1. promote awareness of current issues and perspectives on the assessment of quality in higher education world-wide;
2. provide presentations by the leading exponents of a variety of perspectives in a limited-enrollment environment designed to promote cross-cultural discussion and interaction.

Pre-Institute Workshops on October 29, 2006, present extended learning opportunities with experienced practitioners. Concurrent workshops during the Institute offer in-depth sessions with leaders of successful assessment initiatives. The Best Practices Fair features assessment instruments, methods, and approaches from test developers and campus practitioners in higher education.

Who should attend: all higher education faculty and administrators.
Zerwas Workshop a Success

On Friday, March 24, the Faculty Development and Instructional Design Center along with the Office of Assessment Services hosted *Looking at Learning Objectively: A Nuts and Bolts Approach* facilitated by Dr. Stephen Zerwas. Fifty-eight NIU faculty and staff attended this full-day assessment workshop.

Dr. Zerwas, Director of the Office of Academic Assessment at the University of North Carolina, Greensboro, focused on the use and importance of objectives in assessment. He divided the day into four sessions starting with *Writing Measurable Objectives: Laying the Foundation.*

This session covered the difference between goals, which are expressions of what faculty want students to be or have, and objectives, which are descriptions of what faculty want our students to do. He also showcased the different models of objective writing (i.e., ABCD and SMART), and his own computer application, Objective Builder. Everyone who attended was given this software.

In *Creating a Blueprint: It All Begins with a Plan*, Dr. Zerwas discussed ways to measure student learning, including a discussion of goal analysis, and a helpful list of steps to follow to translate goals to objectives.

The *Objectives and Methods: The Right Tool for the Job* session addressed assessment in relation to objectives. Here, Dr. Zerwas and the attendees discussed which student learning activities (i.e., lecture, directed discussion, case method, etc.) can best help students meet specified study learning objectives (i.e., Bloom’s Taxonomy).

Finally *Measuring Objectives: Does it Match the Plan?* included common questions and answers regarding objectives, and the use of direct measures of student learning in courses or programs through the use of rubrics and prompts.

Several attendees appreciated approaching assessment by working from goals and objectives. Others valued the practical tools and references. One attendee commented, “I found Dr. Zerwas’ workshop to be extremely helpful! This approach could illustrate to the National Council for the Accreditation of Teacher Education (NCATE) that teacher certification candidates are aware of what they are expected to learn, and how they will be expected to demonstrate that learning.” Another attendee remarked, “This workshop should be required for every university professor/administrator who develops assessment procedures.”

---

**Contributions Solicited!**

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.
FROM THE HIGHER LEARNING COMMISSION

Criterion Four: Acquisition, Discovery, and Application of Knowledge

New Higher Learning Commission accreditation criteria became effective January, 2005. Some excerpts from criterion four are:

- The organization demonstrates, through the actions of its board, administrators, students, faculty, and staff, that it values a life of learning.
- The organization demonstrates that acquisition of a breadth of knowledge and skills and the exercise of intellectual inquiry are integral to its educational programs.

The full text may be viewed at:
http://www.ncahigherlearningcommission.org/download/PolicyBookJan05.pdf

HLC Closes Registration for Assessment Workshops

The Higher Learning Commission will offer Making a Difference in Student Learning: Assessment as a Core Strategy twice this summer at the Marriott Hickory Ridge Conference Center in Lisle, Illinois. Both the May 31 and July 26 three-day workshops have closed registration due to demand exceeding capacity. Carolinda Douglas, Acting Coordinator of the Office Assessment Services, stated that she was not surprised. “At both federal and state levels, universities are increasingly under scrutiny to provide evidence of the value of a college degree,” she said. “That evidence is the product of sound assessment practices.” Fortunately, several other assessment conferences are available for those wishing to hone their skills. Three of these are featured on page 5 of this newsletter. If you attend an assessment conference this summer, Toolkit would love to hear from you.

Bringing back methodologies to share is an excellent professional practice.

Toolkit is brought to you by the Office of Assessment Services:
Donna Askins, Editor-in-Chief
Carolinda Douglas, Assessment Coordinator
and Angie, Amy, and Kamalesh, the Assessment Research Assistants.