

Undergraduate Learning Outcomes Assessment  
Summary of 2007-2008 Activity



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# Introduction

In 2006 the University of Nebraska-Lincoln adopted a set of Core Values that reflect the commitment of a land-grant, comprehensive research university.

We value:

- Learning that prepares students for lifetime success and leadership;
- Excellence pursued without compromise;
- Achievement supported by a climate that celebrates each person's success;
- Diversity of ideas and people;
- Engagement with academic, business, and civic communities throughout Nebraska and the world;
- Research and creative activity that inform teaching, foster discovery, and contribute to economic prosperity and our quality of life;
- Stewardship of the human, financial, and physical resources committed to our care.

One of the University of Nebraska-Lincoln's (UNL) two overarching priorities is undergraduate education. A high-quality undergraduate program is an important priority for both the university and the state of Nebraska. Higher education plays a key role in retaining talented individuals who can contribute to the economy of the state of Nebraska and attracting young people from elsewhere. UNL, as the state's comprehensive research university, plays a prominent role in engaging those students who have the widest range of choice in choosing where to pursue their college careers. Evidence shows that students tend to locate where they earned their last degree, and the quality of the undergraduate experience is the single most important ingredient in student choice.

Engagement in assessment of undergraduate student learning outcomes is an expression of these core values and of UNL's undergraduate education priority. UNL has been significantly involved in assessment of undergraduate student learning outcomes for more than ten years and continues to innovate and improve the processes through which student learning is investigated.

The [Office of Academic Affairs](#) and the [Institute of Agriculture and Natural Resources](#) has generously provided funding to support Program Excellence through Assessment, Research and Learning (PEARL) and other assessment activities at UNL. The PEARL documentation of program assessment activities provided the data needed to produce this report.



The purpose of this report is to share some highlights from the undergraduate student learning outcomes assessment activities implemented during the 2007-2008 academic year. [Click here to visit a website containing an overview of outcomes assessment at UNL.](#) Five key questions are examined in this report:

- How is the outcomes assessment process contributing to improvements?
- What are undergraduate programs learning from outcomes assessment?
- What learning outcomes are valued by undergraduate programs?
- How is UNL engaged in assessing undergraduate learning outcomes?
- How does UNL ask students to demonstrate their learning?



# How is the Outcomes Assessment Process Contributing to Improvements?

Programs and departments at UNL used their assessment data in many different ways.

- 92% of the programs and departments who implemented their assessment plans during the 2007-2008 academic year used assessment data to identify issues for further study, modify assessment practices, or make program improvements.
- The most common program improvements were improvements to course content, instructional methods, or assessment processes and program or curricular improvements as shown in Figure 1.
- Other enhancements included improved advising, modifications to co-curricular experiences or internships, adjustment of recruitment and retention processes, and enhanced communication between programs and students.

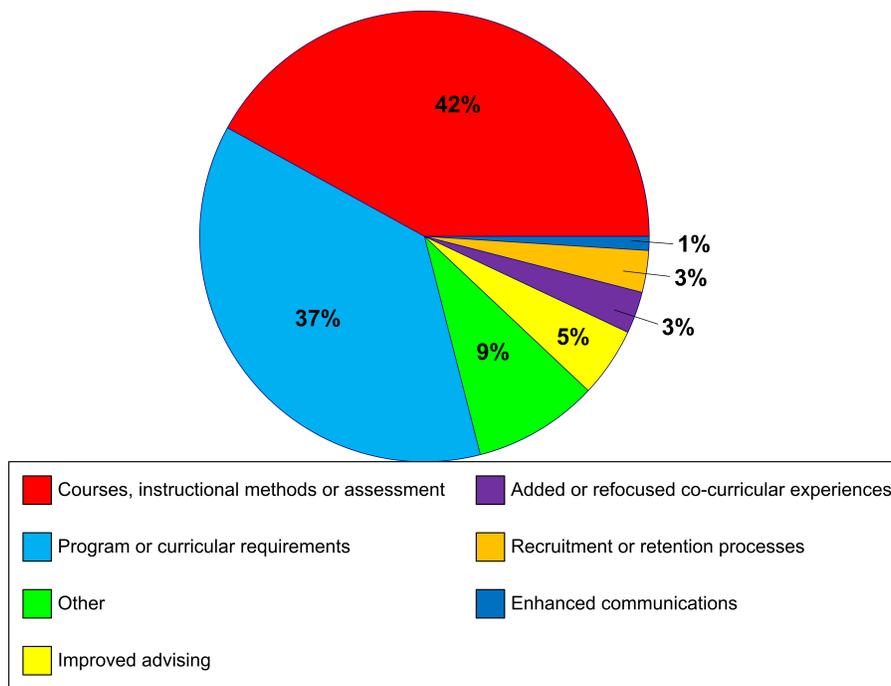


Figure 1. Most common types of program improvement activities<sup>1</sup>.

Assessment data gathered by programs and departments at UNL during the 2007-2008 academic year were shared with many different audiences.

- Over 91% of the programs and departments submitting assessment reports shared assessment results with faculty members, alumni groups, students, accreditors, advisory boards, or other external stakeholders.
- The discussions held during the sharing of assessment data with these various groups provided additional information for programs and departments to use in reflecting on possible improvements.

<sup>1</sup> Source: PEARL documentation system.



## Exemplars: How is the Outcomes Assessment Process Contributing to Improvements?

The following exemplars were identified from the 2007-2008 assessment reports as a small sample of the many uses of assessment data to make improvements.

- A human sciences program found assessment data indicated student performance in the writing of research papers needed to be improved. Recognizing that this important skill could not be taught in a single capstone course, the program added a research course to the sophomore year and is integrating research skills across the curriculum.
- A department found student achievement in quantitative skills was not as high as hoped. To improve these skills the department began teaching a new course on quantitative skills that will be evaluated for permanent inclusion in the program.
- A science program documented the value of field experiences and active learning for achieving high levels of student attainment of the learning outcome. The program is reacting by developing an updated curriculum that makes greater use of these activities.
- A language program identified the importance of co-curricular experiences and travels abroad and is working to more fully integrate these experiences into the existing curriculum.
- A science program is developing a web-based method to enhance communication with current students and improve monitoring of student progress and involvement.
- A department received feedback from students indicating concern regarding the number of students in the senior level course. In response, the department added additional sections of the course to reduce the number of students in each section to about 20.
- A human sciences program used assessment results to add resources to advising and to reassign advisor roles to provide extensive support for undergraduate advising.
- A human sciences program used assessment results to develop a career workshop to provide information to students on making career decisions after graduating, including law school, graduate school, and careers in non-profit fields.
- A program found students were having difficulty with mathematical concepts used during the junior year. In response, the program added more mathematics to the sophomore year courses and incorporated a mathematics laboratory into the junior year.



# What are Undergraduate Programs Learning from Outcomes Assessment?

Once assessment data are gathered, programs and departments use the assessment data to develop a variety of insights as shown in Table 1.

- 76% of the program assessment activities gave programs and departments insight into a variety of topics and issues in addition to student learning including the coherence of courses in the curriculum, the quality of the assessment process, and the effectiveness of advising practices.
- This wide range of insights reveals a strong commitment by programs and departments to fully engage in the assessment process.

Table 1. *Thematic summary of insights developed from assessment data*<sup>2</sup>

Type of program insight	Percent of program assessment activities leading to type of insight <sup>1</sup>
Insight into student learning	78%
Coherence of courses in curriculum	24%
Quality of assessment process	19%
Effectiveness of advising practices	10%
Contribution of co-curricular experiences	8%
Quality of teaching	5%
Other	4%
Engagement of students and faculty	3%
Factors contributing to retention / recruitment	3%

1. Sum equals more than 100% as some program assessment activities led to more than one insight.

<sup>2</sup> Source: PEARL documentation system.



## Exemplars: What are Undergraduate Programs Learning from Outcomes Assessment?

The following exemplars were identified from the 2007-2008 assessment reports as a small sample of the many insights gleaned from assessing student learning.

- In addition to gathering information regarding student achievement of learning outcomes, one department used assessment data to reflect on students' extracurricular participation, the contribution of research and theses experiences to learning, and recruitment of students.
- A department gave prerequisite tests at the start and end of every course to identify weaknesses and omissions in the sequence of topics and to help the instructor identify students who may have inadequate preparation.
- A survey of businesses that employ graduates from one department found that 96% of employers were highly satisfied with graduates' writing skills, leading to insights into how writing is included in the curriculum.
- An agricultural program examined students' work experience in the agriculture field to identify ways the curriculum could be modified to respond to these experiences to best prepare students for work in other agricultural fields.
- An education program engaged an external reviewer from the Department of Education to evaluate student products. The reviewer confirmed the department's high standards and agreed with the faculty members' evaluations giving insight into the quality of the program's assessment practices.



# What Learning Outcomes are Valued by Undergraduate Programs?

Learning outcomes for undergraduate students at UNL are defined at three different levels: institutional outcomes, college outcomes, and program or department outcomes.

## *Institutional Level Learning Outcomes*

UNL is implementing a new learning outcomes-based general education program called [Achievement Centered Education](#) (ACE). The ten learning outcomes for ACE are grouped into four learning objectives:

1. Develop intellectual and practical **skills**, including proficiency in written, oral, and visual communication; inquiry techniques; critical and creative thinking; quantitative applications; information assessment; teamwork; and problem-solving.
2. Build **knowledge** of diverse peoples and cultures and of the natural and physical world through the study of mathematics, sciences and technologies, histories, humanities, arts, social sciences, and human diversity.
3. Exercise individual and social **responsibilities** through the study of ethical principles and reasoning, application of civic knowledge, interaction with diverse cultures, and engagement with global issues.
4. **Integrate** these abilities and capacities, adapting them to new settings, questions, and responsibilities.

The list of ACE learning outcomes is available [here](#).

## *College Level Learning Outcomes*

At the college level many colleges have student learning outcomes. Visit each [college's website](#) for more information.

## *Program Level Learning Outcomes*

In 2007-2008 units were involved in assessing students' discipline-specific content knowledge, written and oral communications, critical thinking skills, problem solving, research skills, teamwork, ethics, laboratory skills, and technology skills. The full list of learning outcomes at the program or department level is available [here](#).



# How is UNL Engaged in Assessing Undergraduate Learning Outcomes?

Every college and the Division of Student Affairs at UNL was involved in program assessment. Colleges and their programs regularly report on what student learning outcomes were assessed, how those outcomes were assessed, what was learned from the assessment activity, and how those results were used.

- In 2007-2008 87% of academic programs at UNL submitted reports on their student learning outcome assessment activity. The programs that have not participated are primarily new programs that are just getting underway or are programs with few students and / or interdisciplinary programs that do not have a home department governing outcomes assessment.

The percentage of submitted reports represents a continuation of the growth of student learning outcomes assessment at UNL since 1997.

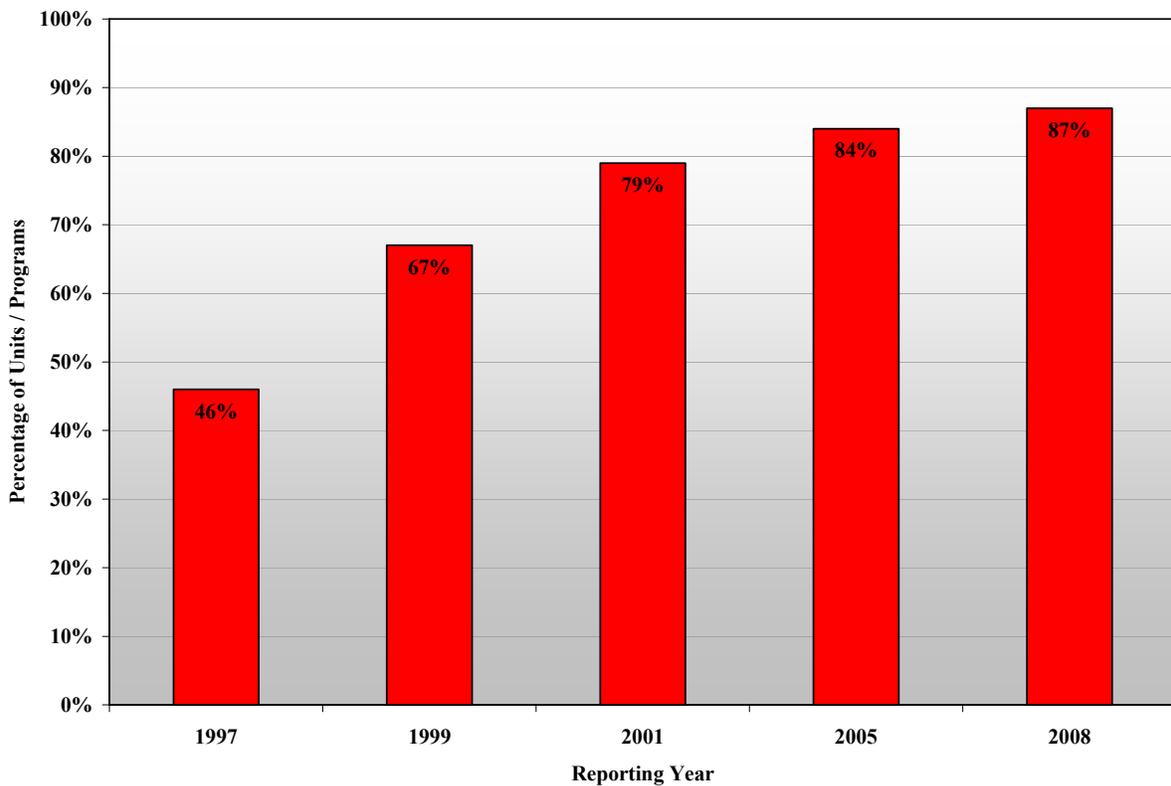


Figure 2. Percentage of units / programs submitting reports of assessment activity<sup>3</sup>.

<sup>3</sup> Source: PEARL documentation system.



Student learning outcomes assessment at UNL is a faculty driven process. [Click here](#) to see a list of resources for faculty members to use in implementing outcomes assessment.

- Faculty members are primarily responsible for developing statements of student learning outcomes for their programs and for developing and implementing processes for assessing student achievement of those outcomes.
- Student learning outcomes are expected to be aligned to the mission of each college and to the mission of UNL, to be student focused, measureable, and represent an appropriate level of learning. Student learning outcomes may also reflect standards and recommendations of national professional associations and are reviewed by internal and external constituents.
- Student learning outcomes are communicated through course syllabi, the undergraduate bulletin, websites and student handbooks.

Four colleges, the Division of Student Affairs, and the Office of Undergraduate Studies are participating in [PEARL](#).

- PEARL is a collaborative project with Colorado State University to archive, share, and improve student learning outcomes assessment through a process of faculty peer review.
- Programs in the participating PEARL colleges submit their assessment plans and use of assessment results to trained peer faculty members for feedback. Programs then use this feedback to improve their assessment activities.
- The peer reviewers identified 57 program assessment “[best practices](#)” in the 2007-2008 academic year.

Assessment at UNL is facilitated by the [University-Wide Assessment Committee](#) (UWAC), chaired by [Dr. Jessica Jonson](#), Director of Institutional Assessment.



## How Does UNL Ask Students to Demonstrate Their Learning?

Student learning outcomes assessment at UNL utilizes a wide range of different assessment tasks, from performance assessment to standardized exams and student self-assessment.

- The 2007-2008 assessment reports revealed 89% of programs used direct or a combination of direct and indirect assessment methods in implementing their program assessment activities.

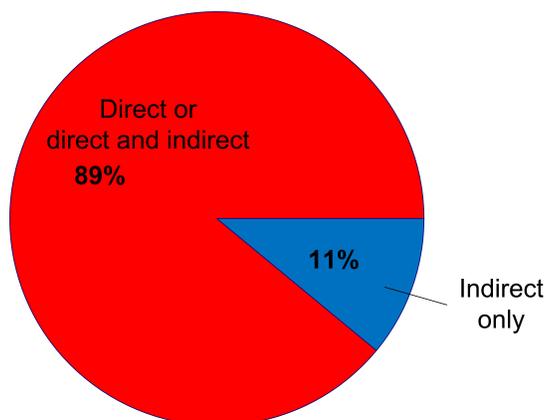


Figure 3. Percentage of units / programs using direct or indirect assessment measures<sup>4</sup>.

Table 2 shows a thematic summary of the types of assessment tools reported by programs during the 2007-2008 academic year. The most common types of assessment tools used were performance assessments, followed by surveys, local exams and capstone projects. The variety of types of assessment tools used at UNL is a favorable attribute of assessment at UNL. This diversity in assessment methods demonstrates programs and departments are selecting assessment methods that are meaningful for their discipline area and program structure and that provide the best information to drive program improvement.

Table 2. *Thematic summary of program assessment methods*<sup>4</sup>

Assessment method	Percent of program assessment activities utilizing assessment method <sup>1</sup>
Performance assessment	35%
Survey	29%
Local exam	27%
Capstone project	16%
Standardized exam	13%
Interview	12%
Institutional data	10%
Portfolio	6%
Other	6%
Focus group	3%
Review by external team	2%
Student self-assessment	2%

1. Sum equals more than 100% as some program assessment activities used more than one method.

<sup>4</sup> Source: PEARL documentation system.

## Exemplars: How Does UNL Ask Students to Demonstrate Their Learning?

The following exemplars were identified from the 2007-2008 assessment reports as a small sample of the many different assessment tools in use at UNL.

- Dietetics students (under the supervision of a registered dietitian and licensed medical nutrition therapist) provided nutrition coaching to State of Nebraska Employees. Students completed a self-evaluation on their performance and were also evaluated by the State of Nebraska Employees receiving nutrition coaching services.
- Integrating and synthesizing knowledge across all courses, Food Science and Technology students worked in teams to generate a new food product concept, assess its market potential, determine a process for its production, and develop labels declaring its nutritional and component content.
- Biological chemistry students complete a national standardized test as part of their senior capstone experience.
- Family and consumer science education had 3 expert educators from the Department of Education, Lincoln Public Schools, and UNL evaluate lesson plans from current students.
- Geology students participate in an intensive, 6-week field experience in the Big Horn Mountains and Big Horn Basin of Wyoming. Students are assessed by the quality of their field notebooks, their report writing, and through oral examination by experts in the field.
- English students created portfolios of their writing that demonstrated their achievement for each of the six department outcomes assessed this year. Faculty members in the department evaluated these portfolios using rubrics.
- In an example from Student Affairs, students participating in fraternities and sororities participated in a national survey to assess their ability to engage in principled dissent.



## Summary

The University of Nebraska-Lincoln is highly committed to undergraduate education and student learning outcomes assessment. This report has highlighted how UNL, based on assessment activity during the 2007-2008 academic year, addressed five key questions:

- How is the outcomes assessment process contributing to improvements?
- What are undergraduate programs learning from outcomes assessment?
- What learning outcomes are valued by undergraduate programs?
- How is UNL engaged in assessing undergraduate learning outcomes?
- How does UNL ask students to demonstrate their learning?

Assessment at UNL is continuously growing and improving. In the coming years, UNL will be involved in many innovative assessment initiatives.

- The development and implementation of an assessment process for Achievement-Centered Education (ACE), UNL's new general education program.
- The continued growth and involvement in [PEARL](#).
- Participation in initiatives and pilots to explore innovations in assessment like the Association of American Colleges and Universities (AAC&U) [VALUE](#) project.
- [Presentation and publication](#) on assessment innovations.

UNL has been significantly involved in assessment of undergraduate student learning outcomes for more than ten years and continues to innovate and improve the processes through which student learning is investigated.

