ACE 10 Assessment Summary Report

ACE 10 Generate a creative or scholarly product that requires broad knowledge, appropriate technical proficiency, information collection, synthesis, interpretation, presentation, and reflection.

Content Analysis
All departments teaching ACE 10 reports were required to submit department summaries of their ACE 10 assessment in November 2014. Undergrad Education Programs received 50 ACE 10 reports in various formats. The following chart summarizes the number of times each of these reports specifically commented on key aspects of the ACE 10 outcome.

<table>
<thead>
<tr>
<th>Evaluation Process</th>
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</thead>
<tbody>
<tr>
<td>Used formalized rubric</td>
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<tr>
<td>Plan to create/revise rubric</td>
</tr>
<tr>
<td>Faculty made recommendations for improvement</td>
</tr>
</tbody>
</table>

**Writing**

| ACE 10 assessment revealed weakness in writing          | 9  |
| Will change curriculum so students writer earlier in program sequence | 8  |
| Faculty made recommendations for improvement           | 8  |

**Research**

| ACE 10 assessment revealed weakness in research & analytical skills | 12 |
| Will change curriculum so students develop skills earlier in program | 10 |
| Faculty made recommendations for improvement              | 7  |

**Presentation**

| ACE 10 assessment revealed weakness in presentation skills | 2  |
| Will change curriculum so students develop skills earlier in program | 1  |
| Faculty made recommendations for improvement              | 6  |

**Reflection**

| ACE 10 assessment revealed weakness in reflection skills  | 6  |
| Will change curriculum so students develop skills earlier in program | 3  |
| Faculty made recommendations for improvement              | 11 |
Examples of findings from ACE 10 department assessment reports

EVALUATION PROCESS
“Want to develop enhanced grading rubrics specific to ACE 10 outcomes.
“Faculty will make some adjustments to rubric to give reviewers a better indication of how the core objectives are being met.”
“The possible creation of a college-wide assessment committee is under consideration.”
“Of the 42 skills and experiences used to assess the major as a whole, 30 are addressed specifically in [this course]. The recent inclusion of path analysis is an example of how faculty consulted and modified the course.”
“Faculty plan to develop a process to make sure that new instructors who take over teaching an ACE 10 course are aware of the expectations.”
“We wonder if this is an appropriate ACE 10 activity for students, given the changes we have made to the curriculum.”
“The grading rubric will address areas of scientific rigor and understanding, oral presentation and thesis writing. This should help reveal specific needs related to learning.”

WRITING
“Students’ writing ability described as “disappointing” with lack of mastery skills across the board. Both basic composition and advanced [writing within the discipline] need increased attention.”
“Changed freshman orientation course from an eight-week to a full-semester course to allow for greater attention to writing.”
“Main feeder course continues to be revised to include a field-based synthesis project to promote writing, organizational skills, technical knowledge and integration.”
“To address writing and oral communication deficiencies, changes to a prerequisite course were implemented.”
“Referrals to the Writing Center on campus and utilizing the resource offered by university librarians are recommended.”
“While a majority of students demonstrated the ability to integrate findings, a significant number of students struggled to write their final research papers in ways that demonstrated fluency with integrating others’ voices into their own arguments.”
“Encouraging instructors of earlier courses to require more written assignments that directly engage ethics, civics, and issues of racial and ethnic diversity.”

RESEARCH
“Students are struggling to connect primary to secondary research.”
“Students mistake reporting of facts for analysis of data; need reminder of how to synthesize information and subject it to analysis.”
“Some projects failed to present documentation of research. Not certain whether faculty set expectation for this or if students need prompting.”
“Students used trial and error approach rather than applying a planned experimental design. Additional lectures planned.”
“The department gateway course was modified to emphasize the collection and analysis of sources and good writing practices. A discussion of ACE 10 changes is underway.”
“Limitations in students’ ability to design experiments and analyze data was noted. To provide additional assessment, semester-by-semester tracking of student lab report scores in junior level course is now included in student outcomes assessment procedures.
“...decided to incorporate more research in the 300 level classes to prepare [students] for the ACE 10 capstone.”

**PRESENTATION**
“The requirement that students present work to peers and faculty is exceedingly important....inaugurating a joint UNL-UNO symposium to present capstone work.”
“Adding mid-semester oral presentation, project management updates, and submission of draft reports contributed to strengthened outcome.”
“The department wants to investigate whether students are sufficiently prepared to effectively interact with sponsors and other external stakeholders. They will develop questions that require students to reflect on this issue as part of their presentation.”
“Feedback from the review panel for student final project presentations will be used to develop further opportunities for oral communication in the course.”
“Faculty attribute multiple presentations over the four-course sequence to fostering successful reflection and innovation.”
“Emphasis on professional presentation of student work needs continual attention so students can clearly present their intellectual accomplishments and skills beyond initial employment after graduation.”

**Observations from a content analysis of the reports**

**The frequency of offering and types of ACE 10 courses**
Assessment of ACE 10 outcomes is successfully accomplished in a variety of ways across campus. The frequency and format of courses depends on faculty resources and student enrollment. The nature of the discipline creates unique differences and enhances the design of the learning experiences that promote integration.

**Focus of faculty assessments**
Faculty tailored the content of the capstone courses to include experiential learning that matched the ACE 10 student learning outcomes. Many assessment documents favored the usual style of assessment of the learning outcomes focusing on content and knowledge rather than the abilities and capabilities of technical proficiency, information collection, synthesis, interpretation, presentation, and reflection. Even among those who mentioned specific aspects contained in the ACE 10 outcome, little or no mention was made of some of the parts of the outcome (broad knowledge, technical proficiency,
information collection, synthesis, interpretation). Writing was mentioned even though it was not specifically mentioned in the outcome.

A rubric specific to measuring ACE 10 outcomes that can be adapted to various program disciplines may be useful to faculty. The common framework would be helpful when the department has multiple courses and/or sections of the capstone course as well as beneficial when assessing and reporting the success of the ACE courses at the university level. (A rubric has been developed by the ACE 5 Year Review Team for ACE 10).

**Sharing findings and involving communities of support**

A common way of involving other faculty was sharing the assessment first with the department chair and then presenting a summary at a departmental meeting. A few discussed the findings at a faculty retreat and focused on curricular changes that when implemented would strengthen the capstone course. Academic departments that have professional accreditation requirements find it helpful to involve their external advisory boards in the assessment process.

**Resulting curricular changes and faculty recommendations**

Common to many departments, ACE 10 assessment revealed weaknesses in writing and research skills. Several departments found that it is possible for students to reach the capstone stage without having written a paper longer than 8-10 pages or ever engaging in primary source research. Students often mistake reporting of facts for analysis of data.

As a result curricular changes are being made to expose students to these skill sets in lower level courses earlier in the program sequence. Referrals to the Writing Center on campus and utilizing the resources offered by university librarians were also recommendations suggested by faculty. This will spread out the time-consuming task of reading rough drafts, providing feedback, and giving assistance in how to synthesize information and subject it to appropriate analysis. Other benefits include working to increase student proficiency in these skill areas through reinforcement and student recognizing how the courses are integrated and build upon each other.

**Observations from associate deans, who are members of the University-Wide Assessment Committee (UWAC)**

The need to improve student writing emerged in April 2015 during the UWAC’s review of department assessment reports for ACE 8 and ACE 10, and biennial program assessment reports submitted during the 2014-15 academic year. Based on observations of the reports and discussions in committee meetings, the members identified a need to improve students’ ability to write. From the UWAC report (April 14, 2015):
“Students struggle with writing in the disciplines across colleges. Analysis of the ACE 10 assessments and program assessment reports provide evidence for this observation: While writing for various audiences is part of the ACE 1 Learning Outcome, taking one course is not sufficient to help make students proficient in their disciplines. The challenge of helping students learn to write within their discipline suggests that a new or renewed priority should be given to developing students’ ability to communicate effectively to those in their chosen area.”

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