

The Office of Institutional Research (OIR) produces *Research Clips* to provide the university community a brief report on a variety of topics. In most cases the "clips" are from a more detailed research project or survey analysis which can be found on the OIR website at <http://www.und.edu/dept/dataacol/index.html>.

The Collegiate Learning Assessment



Discussion and results of UND's recent participation in the CLA testing.

What is it?

The Collegiate Learning Assessment (CLA), launched in 2000 by the Council for Aid to Education, is an open-ended question test designed to measure the impact of an institution upon the learning ability of its students. The University of North Dakota, for the first time, participated in the CLA during the 2009-2010 school year with 111 freshman and 108 senior students donating their time and effort. Thank you to all that participated in this important and unique study.

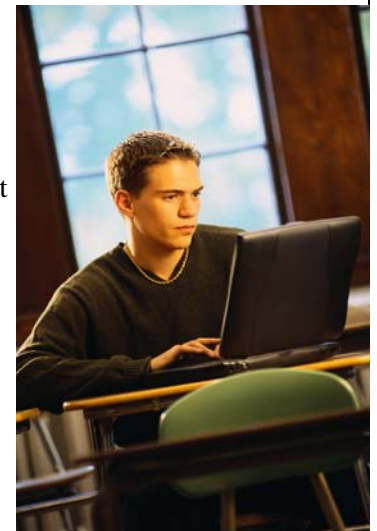
CLA testing was administered via computer and proctored by members of the University Assessment Committee. Participants were presented with either a "performance task" which asked them to respond to a real-life situation (write a memo, present findings, or make a crucial decision) or an "analytic writing task" in which they were asked to either make an argument or critique an argument. Participants were presented the initial problem and were supplied documents (figures, graphs, press releases, articles, etc.) to use to construct their answer.

How is testing scored?

CLA testing operates under a "value-added model" that takes into account the average academic ability of entering students for a given institution. In short, the model predicts the average CLA score of participating seniors and compares it to the actual (observed) scores seniors receive upon completion of the test. In more detail, the model uses the average entering academic ability (EAA) of the senior participants and the average freshman CLA score (CLA_f) to predict the average senior CLA score (CLA_s). The average EAA is established by the senior participants' ACT or SAT scores (ACT scores are converted to SAT using a crosswalk table, e.g. 22 = 1030, 28 = 1260, 34 = 1510).

The actual, or observed, senior CLA scores are then compared to the predicted CLA scores by computing the difference and converting to a standardized scale.

Scores higher than expected are interpreted as "value added" in that the learning ability of seniors has progressed farther than expected based on the CLA model. Institutions that score lower are interpreted as falling short of predicted added learning ability. Scores around 0 (-1 to +1) are interpreted as "near expected."



More information regarding the model, the scoring procedures, the methodology, and ranking descriptions can be found on our website.

How are the scores interpreted?

According to the CLA report, "Value-added scores are properly interpreted as senior average CLA performance relative to the typical school testing students with similar academic skills upon entering college." They also caution that "a high value-added score does not necessarily indicate high absolute performance on the CLA. Schools with low absolute CLA performance may obtain high value-added scores by performing well relative to expected... likewise, schools with high absolute CLA performance may obtain low value-added scores by performing poorly relative to expected."

This model allows for comparisons to be made between schools that admit students with similar academic ability. While a comparison across all schools participating in the CLA is “technically acceptable” the CLA report warns researchers that “this is not the preferred interpretation because it encourages comparisons among disparate institutions.”

UND Results

Two hundred nineteen UND students (111 freshmen, 108 seniors) participated in the CLA. The computer-based CLA was administered to freshman participants from September 14-17, 2009, and to senior participants February 22-25, 2010. Table 1 presents the demographic breakdown of the CLA participants.

| Table 1. Demographics | Number of Freshmen | Number of Seniors | Total |
|------------------------------|---------------------------|--------------------------|--------------|
| Gender | | | |
| Male | 39 | 48 | 87 |
| Female | 72 | 59 | 131 |
| Decline to State | 0 | 1 | 1 |
| Field of Study | | | |
| Sciences and Engineering | 16 | 27 | 43 |
| Social Sciences | 7 | 22 | 29 |
| Humanities & Languages | 4 | 9 | 13 |
| Business | 12 | 23 | 35 |
| Helping/Services | 33 | 17 | 50 |
| Undecided/Other/N/A | 39 | 10 | 49 |
| Race/Ethnicity | | | |
| American | 2 | 2 | 4 |
| Indian/Alaska Native | | | |
| Asian/Pacific Islander | 0 | 1 | 1 |
| Black, Non-Hispanic | 0 | 0 | 0 |
| Hispanic | 1 | 0 | 1 |
| White, Non-Hispanic | 105 | 98 | 203 |
| Other | 1 | 0 | 1 |
| Decline to State | 2 | 7 | 9 |

Mean freshmen performance on the CLA was quite good with total scores and sub-part scores landing in the 90th percentile and above. Mean senior performance placed in the average to above-average category with scores clustered around the 80th percentile. Note that the senior mean scores are higher than freshmen mean scores even though

freshmen percentile scores are higher. Naturally, students should improve over the course of their college career, which is the process that the CLA hopes to capture and measure. Tables 2 and 3 present the breakdown of freshmen and senior unadjusted performance results.

| Table 2. Unadjusted Freshman Performance | Number of Freshmen | Mean Score | Mean Score Percentile Rank |
|---|---------------------------|-------------------|-----------------------------------|
| Total CLA Score | 111 | 1219 | 92 |
| Performance Task | 56 | 1191 | 90 |
| Analytic Writing Task | 55 | 1248 | 91 |
| Make-an-Argument | 55 | 1255 | 90 |
| Critique-an-Argument | 55 | 1240 | 90 |
| EAA | 111 | 1150 | 81 |

| Table 3. Unadjusted Senior Performance | Number of Seniors | Mean Score | Mean Score Percentile Rank |
|---|--------------------------|-------------------|-----------------------------------|
| Total CLA Score | 108 | 1269 | 79 |
| Performance Task | 54 | 1222 | 80 |
| Analytic Writing Task | 54 | 1316 | 82 |
| Make-an-Argument | 54 | 1289 | 78 |
| Critique-an-Argument | 54 | 1342 | 84 |
| EAA | 108 | 1124 | 72 |

Table 4 presents the value-added scores, which are the core dimension of the CLA study. As can be seen, senior CLA scores resulted in positive value-added scores in every category, except for the Make-an-Argument dimension of the Analytic Writing Task. However, the scores are all within + or - 1 with value-added percentile ranks hovering around 50-60th, meaning that UND performed “near expected” given the



Entering Academic Ability (EAA) of the students enrolling at UND. In the percentile ranks for the total CLA score, UND ranked higher than 57% of the other participating schools.

More Information

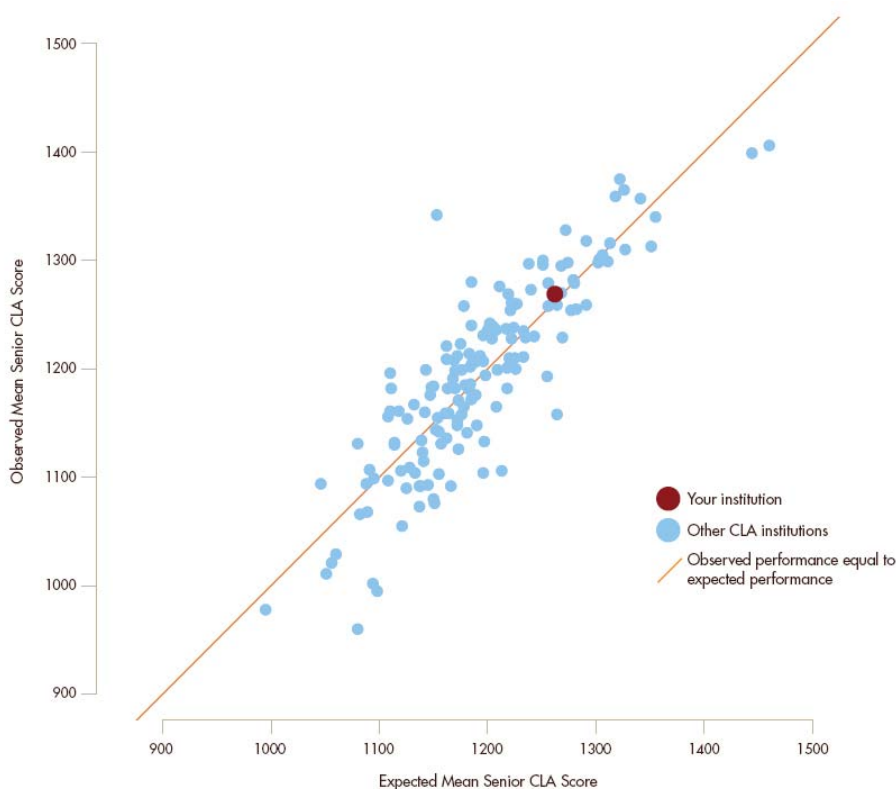
More information regarding this study can be found at the Institutional Research website found at <http://www.und.edu/dept/datacol/index.html> or by contacting Michael Braget at 777-2494 or Carmen Williams at 777-2456.

Also, the CLA is part of a larger group, the Council for Aid to Education (CAE). According to their website, CAE “is a national nonprofit organization based in New York City. Initially established in 1952 to advance corporate support of education and to conduct policy research on higher education, today CAE is also focused on improving quality and access in higher education.” More information about CAE can be found on their website located at <http://www.cae.org/content/about.htm>.

| Table 4. Value-Added and Precision Estimates | Performance Level | Value-Added Score | Value-Added Percentile Rank |
|--|-------------------|-------------------|-----------------------------|
| Total CLA Score | Near | 0.17 | 57 |
| Performance Task | Near | 0.18 | 54 |
| Analytic Writing Task | Near | 0.16 | 52 |
| Make-an-Argument | Near | -0.12 | 40 |
| Critique-an-Argument | Near | 0.45 | 66 |

Figure 1 plots the observed mean CLA score against the expected mean CLA score of the participating schools of the CLA study. The diagonal line represents an observed performance equal to expected performance. Therefore, plots above the line represent schools who performed better than expected while plots below represent schools that performed lower than expected. UND, represented by the darker colored circle, is slightly above the expected performance set by the value-added model. This also shows a visual of why performance levels in Table 4 are reported at “near” expectation.

Figure 1. Observed CLA Scores vs. Expected CLA Scores



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For more detailed information about any of our surveys, please refer to <http://www.und.edu/dept/datacol/reports/surveydesc.html>