# Minot State UNIVERSITY®

## Institutional Research

## The Collegiate Learning Assessment
A Detailed brief on the results of MSU's participation in the CLA testing from 2009-2012

### What is the CLA?

The Collegiate Learning Assessment (CLA) is a major initiative of the Council for Aid to Education (CAE). The CLA is designed to measure an institutions contribution, or value added, to the development of higher-order skills. The CLA uses constructed – response tasks to measure students' performance on the following higher-order skills: Analytical Reasoning and Evaluation, Writing Effectiveness, Writing Mechanics, and Problem Solving.

The CLA consists of two task types: Performance Tasks and Analytic Writing. The Performance Task type requests a student to complete a "real-life" activity, such as preparing a memo or policy recommendation. This task often requires students to integrate evidence from different sources; distinguish rational from emotional arguments and fact from opinion. The Analytic Writing Task contains two types of essay prompts: Make-An-Argument and Critique-An-Argument. Both types of essays measure a student' skill in articulating complex ideas, examining claims and evidence, supporting ideas with relevant reasons and examples, sustaining a coherent discussion, and using standard written English.

MSU collects cross-sectional data, with a sample of entering students in the fall and a sample of exiting students in the spring of the same academic year. Each spring the institution receives a full report that includes data from both samples of students with comparison data on other CLA participant's institutions.

CLA testing was administered within the FYE courses for freshmen students and in all available capstone courses for exiting senior students. The results of the CLA are analyzed by the CAE using prediction model which provides an expected CLA score of each student. The model uses the average entering academic ability (EAA) of student participants to predict the CLA score. The average EAA is established using a student's ACT/SAT score. The actual, or observed, CLA scores are then compared to the predicted CLA scores by use of a standardized scale. Scores higher than expected are coded as "value-added" meaning that the learning ability of the student has exceeded the expected value based on the prediction model. Students that score slightly lower than the predicted CLA score are coded as "near expected", and those that score below one standard deviation of the expected are coded as "below expected".

### MSU Results
### A Three Year Comparison of Data

The CAE provides data analyses reports for each institution, regardless of sample size and sampling strategy. It is encouraged that each institution use caution when interpreting results if a very small sample size was used as the population tested may not be representative of the student body population and therefore may not be generalizable.

Each year the IR office strives to collect an N of at least 100 students in the fall (freshmen) and spring (senior) to ensure representativeness and generalizability among freshmen and senior student bodies.

| Table 1. | 2009-2010 | | 2010-2011 | | 2011-2012 | |
|---|---|---|---|---|---|---|
| **Demographics** | | | | | | |
| **Gender** | **FYR** | **SR** | **FYR** | **SR** | **FYR** | **SR** |
| Male | 29 | 16 | 40 | 27 | 53 | 13 |
| Female | 57 | 31 | 77 | 52 | 84 | 46 |
| Unknown | 0 | 1 | 0 | 0 | 0 | 1 |
| **Field of Study** | | | | | | |
| Sciences and Engineering | 9 | 2 | 14 | 3 | 14 | 3 |
| Social Science | 4 | 5 | 5 | 14 | 10 | 8 |
| Humanities/Language | 10 | 10 | 19 | 9 | 16 | 12 |
| Business | 15 | 8 | 4 | 25 | 17 | 8 |
| Helping Services | 29 | 19 | 50 | 27 | 41 | 18 |
| Undecided/NA | 19 | 4 | 25 | 1 | 39 | 11 |
| **Ethnicity** | | | | | | |
| American Indian | 3 | 1 | 3 | 0 | 2 | 0 |
| Asian | 0 | 0 | 0 | 0 | 1 | 1 |
| Black/Non-Hispanic | 2 | 0 | 5 | 1 | 2 | 0 |
| Hispanic | 2 | 1 | 2 | 1 | 1 | 1 |
| White-Non Hispanic | 76 | 43 | 106 | 74 | 123 | 52 |
| Other | 3 | 0 | 1 | 1 | 7 | 2 |
| Decline to State | 0 | 3 | 0 | 2 | 1 | 4 |

As seen in Table 1. Demographics, the 2009-2010 academic year did not quite reach the goal of 100 students for both subgroups. The N for freshmen participants was 86 and 48 for senior participants (2009-2010). The 2010-2011 academic years yielded an N of 117 freshmen and 79 senior participants. The 2011-2012 academic years yielded an N of 137 freshmen and 60 seniors. Although over 100 senior students were sampled during the last three CLA administrations, many of those that participated did not have a SAT/ACT on file in order for the CAE to conduct analysis on the student level, thus they were removed from the analysis and data collection.

Mean Unadjusted Freshmen Performance (Table 2) was quite low respectively for all administration years, with the highest mean percentile rank at 28 percent (analytical writing task). The lowest mean percentile rank for freshmen was in the performance task. The low mean percentile ranks have remained low across the last three administrations.

The Unadjusted Senior Performance (Table 3) indicated a considerable increase in Senior EAA from the 2009 administration to 2010. Considerable increases among percentile ranks were evident under Performance Task for each year. The Analytical Writing Task composed of Make-an-Argument and Critique-an-Argument indicated a decrease in mean percentile rank across administration years.

Table 4 represents the value-added scores, the premise of the CLA study. This table indicates that nearly all value-added scores across academic administrations were near or below the expected values. The performance level for the overall CLA score in 2009-2010 was "Near" the expected value; however this level dropped to "Below" in 2010-2011, only to improve to the "Near" level in 2011-2012. The greatest gains in performance level are evident in the Performance Task, in 2009-2010 the performance level was "Well Below" the expected, in 2010-2011 an increase to below expected was evident and in 2011-2012 MSU CLA participants scored "Near" the expected performance level.

Figures 1-3 show the performance of all four-year colleges and universities, relative to their expected performance as predicted by the value-added model. The vertical distance from the diagonal line indicates the value added by the institution. MSU falls below the diagonal line for all three CLA administrations, this means that MSU has less added-value than expected based on the model.

| Table 2. Unadjusted Freshmen Performance | 2009-2010 | | | 2010-2011 | | | 2011-2012 | | |
|---|---|---|---|---|---|---|---|---|---|
| | FYR | Mean Score | Mean % Rank | FYR | Mean Score | Mean % Rank | FYR | Mean Score | Mean % Rank |
| Total CLA Score | 48 | 1090 | 10 | 117 | 954 | 17 | 137 | 960 | 15 |
| Performance Task | 23 | 1002 | 6 | 63 | 951 | 17 | 68 | 964 | 20 |
| Analytic Writing Task | 25 | 1170 | 28 | 54 | 956 | 17 | 69 | 956 | 14 |
| Make-an-Argument | 25 | 1116 | 14 | 57 | 948 | 17 | 69 | 948 | 14 |
| Critique-an- Argument | 26 | 1208 | 40 | 55 | 958 | 16 | 70 | 962 | 17 |
| EAA | 49 | 992 | 22 | 121 | 1022 | 43 | 138 | 1007 | 36 |

| Table 3. Unadjusted Senior Performance | 2009-2010 | | | 2010-2011 | | | 2011-2012 | | |
|---|---|---|---|---|---|---|---|---|---|
| | SR | Mean Score | Mean % Rank | SR | Mean Score | Mean % Rank | SR | Mean Score | Mean % Rank |
| Total CLA Score | 48 | 1090 | 10 | 79 | 1066 | 14 | 60 | 1107 | 25 |
| Performance Task | 23 | 1002 | 6 | 38 | 1067 | 18 | 29 | 1147 | 41 |
| Analytic Writing Task | 25 | 1170 | 28 | 41 | 1064 | 14 | 31 | 1070 | 13 |
| Make-an-Argument | 25 | 1116 | 14 | 44 | 1039 | 13 | 31 | 1001 | 6 |
| Critique-an- Argument | 26 | 1208 | 40 | 42 | 1079 | 16 | 31 | 1138 | 33 |
| EAA | 49 | 992 | 22 | 83 | 1052 | 50 | 60 | 1065 | 51 |

| Table 4. Value Added and Precision Estimates | 2009-2010 | | | 2010-2011 | | | 2011-2012 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Performance Level | Value-Added Score | Value-Added % Rank | Performance Level | Value-Added Score | Value-Added % Rank | Performance Level | Value-Added Score | Value-Added % Rank |
| Total CLA Score | Near | -0.8 | 19 | Below | -1.07 | 15 | Near | -0.46 | 30 |
| Performance Task | Well Below | -2.47 | 1 | Below | -1.15 | 14 | Near | -0.12 | 44 |
| Analytic Writing Task | Near | 0.88 | 84 | Near | -0.9 | 16 | Near | -0.79 | 17 |
| Make-an-Argument | Near | 0.12 | 51 | Near | -0.96 | 14 | Below | -1.66 | 7 |
| Critique-an- Argument | Above | 1.22 | 89 | Near | -0.84 | 19 | Near | 0.09 | 52 |



Figure 1. 2009-2010 Observed CLA Scores vs. Expected Scores
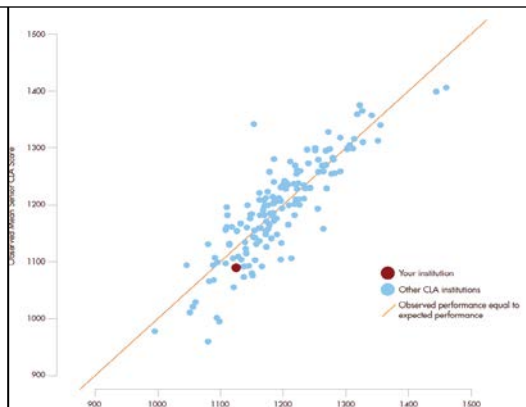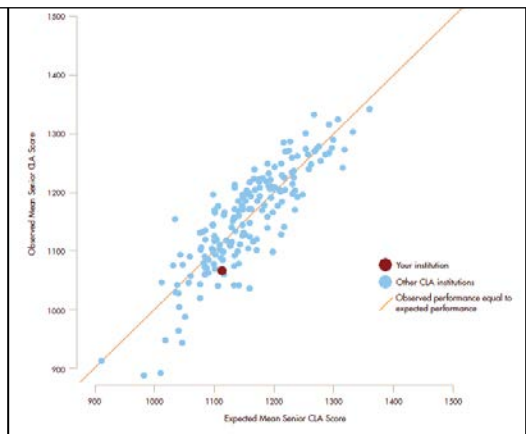


Figure 2. 2010-2011 Observed CLA Scores vs. Expected Scores



Figure 3. 2011-2012 Observed CLA Scores vs. Expected Scores