University Reports

Emporia State University

Emporia State University uses a three tiered approach to directly assess and analyze student learning in the three core skills areas: Mathematics/Quantitative/Analytical Reasoning, Written and Oral Communication, and Critical Thinking/Problem Solving. These direct assessments consist of internal course-embedded and external standardized (norm-referenced and value-added modeling) metrics. Course embedded assessment strategies evidence faculty efforts for insuring continuous improvement of student learning in key core skills areas. External direct assessments gauge the quality of core skills attainment by benchmarking ESU students' performances against peers and other institutions. Finally, value-added assessments provide the third metric used for quantifying student performance in learning core skills. These three distinct types of direct learning assessments complementarily inform curriculum adaptation.

Mathematics/Quantitative/Analytical Reasoning

The linkage studies executive summary (2008-2012 combined cohorts) showed that 25% (n=106) of students were in the same quartile range on the CAAP as they were on the ACT, 33% (n=140) of students were in a lower quartile range and 41% (n=174) were in a higher quartile range. Thus, summative findings show that 66% (n=280) were in the same or higher quartile on the CAAP than on the ACT. Ideally, all students would rank in the same or higher quartiles after their mathematics coursework at ESU. This data reveals that analyzing rigor levels using course embedded assessments in college algebra courses is a necessary next step. The overarching goal is to improve student learning in mathematics; with one goal being to reduce the percentage of students' (currently 33%, n=140) who rank in the lower quartile range.

Written and Oral Communication

The written communication assessment plan includes portfolio analyses of student assignments completed in composition I and composition II using rubrics designed to measure those outcomes deemed critical to comprehensive writing skill development. This core skill is also measured using CAAP/ACT linkage studies and CAAP norm-referenced writing skills data whereby mean scores, and local and national percentages are benchmarked against other institutions. The oral communication core skill is assessed using a course embedded assessment in SP 307-Advanced Public Speaking. The assessment descriptions and findings are presented by skill and assessment type.

Data from the entire academic year show that students are making significant gain in writing skills. While the data do show specific areas in need of further work, overall these numbers demonstrate significant student success in improving their skills in written communication across the Composition I and II sequence.

Summary

Nationally normed standardized tests (CAAP) are used for confirming student's graduation competency requirements for both mathematics and writing skills. These tests are also used for aggregated mean score benchmark comparisons versus peer institutions and all institutions testing in the CAAP. The trend data show that overall ESU sophomore cohorts consistently perform at equal or higher levels than other institution groups in mathematics and writing skills. Additionally, measuring the critical thinking skills of senior business students (capstone) using the ETS-Business Critical Thinking Skills Test confirms students' abilities to critically think in multiple dimensions. Programmatically, this data informs curriculum adaptations across related business courses.

Linkage studies (ACT/CAAP) provide data showing how students should improve in their skills from their first attendance in college to the completion of coursework in mathematics and writing courses. The results of the linkage studies show that ESU has some opportunities to improve as approximately 35% of students don't make predicted skill gains. However, the positive outcome from the linkage studies shows that 65% of ESU students make expected or higher than expected gains in both mathematics and writing skills. This data doesn't specifically pinpoint where improvement should occur, but layering this data with course embedded assessments provide a more detailed analysis used to effectively improve student learning.

Fort Hays State University

Regent's institutions use various mechanisms to assess student learning. This briefing report specifically identifies assessment methods utilized to assure student learning in the following areas:

- mathematics/quantitative/analytical reasoning,
- written and oral communication, and
- critical thinking/problem solving.

Area	Assessment and Student Target	Assessment Description	Assessment Results
Mathematics/ quantitative reasoning	College Algebra Pre-test/ Post-test All enrollees in MATH 110	A pretest is given to every student in College Algebra on the first day of class. There are 25 questions on the pretest and students are allowed to use calculators and have 30 minutes to finish the test. All questions on the pretest are multiple-choice and are given equal weight. A posttest is given to every student in College Algebra on the final exam day of class. There are 40 questions on the posttest and students are allowed to use calculators and are given 100 minutes to finish the test.	Spring 2014 Average pre-test score 12.28 Average post-test score 25.39 Fall 2013 Average pre-test score 16.25 Average post-test score 33.40 Spring 2013 Average pre-test score 12.72 Average post-test score 27.53
Written communication	Collegiate Learning Assessment Approximately 100 FR and 100 SR students.	The Collegiate Learning Assessment is a nationally norm-referenced written assessment which focuses on evaluating students writing ability and critical thinking/analytic reasoning. Students are randomly administered a 45 or 90 min version of the CLA. Student scores are norm referenced according to comparable institutions and student ability (assessed by ACT or SAT score).	2012-2013 CLA Administration (Unadjusted/Raw Scores) Freshman Performance Total CLA Score 1038 Performance Task Score 1020 Analytic Writing Task Score 1060 Senior Performance Total CLA Score 1143 Performance Task Score 1148 Analytic Writing Task Score 1139
	Composition Sequence Assessment 60 random students in ENG 101 and ENG 102	The department measures students enrolled in our English Composition sequence through correlating scores of paired essays written by students at the beginning of the two-course English Composition sequence and at the end of the sequence.	2012-2013 Composition Assessment Report Composite Index Results Pre-test 14.28 Post-test 17.21 ($t = 4.81$, $p = .002$ – significant improvement

		Essays are evaluated by a team of four English department faculty members who use a rubric with six criteria: position; argument development; mechanics; audience; source use; and source documentation and work(s) cited, references, or bibliography. Each of the 60 essays (2 from each of the 30 students in the sample) are read by at least two members of the evaluation team. Evaluators rate each essay on a scale of 1–4 for each of the six criteria and generate a possible total score of 6–24 for each essay. Paired T-Tests determine whether the composition sequence is effective. The analysis examines students' overall score, as well as each of the individual criteria specified in the rubric.	Position Subscale Results Pre-test 2.50 Post-test 2.86 (t = 2.71, p = .006 – significant improvement) Argument Development Subscale Results Pre-test 2.23 Post-test 2.77 (t = 4.00, p = .000 – significant improvement) Mechanics Subscale Results Pre-test 2.92 Post-test 3.23 (t = 2.85, p = .004 – significant improvement) Audience Subscale Results Pre-test 2.03 Post-test 2.48 (t= 2.74, p = .005 – significant improvement) Source Use Subscale Results Pre-test 2.35 Post-test 3.07 (t = 5.79, p = .000 – significant improvement) Source Documentation Subscale Results Pre-test 2.25 Post-test 2.79 (t = 3.17, p = .001 – significant improvement)
Oral communication	Fundamentals of Oral Communication Pre-test/Post-test All enrollees in COMM 100	Knowledge development throughout the course of the semester is evaluated through use of a 50 question pre-test/post-test design which generates quantitative scores related to students' average overall knowledge of communication techniques and concepts on the first and last days of the course. Average scores on the pre-test and post-test are analyzed for	Spring 2013 (t (378)= 7.03, p = .001 – significant improvement) Fall 2012 (t (508) = 7.71, p = .001 – significant improvement) Spring 2012 (t (455) = 7.56, p = .001 – significant improvement)

		statistical significance through the t-test.	Fall 2011 (t (573) = 5.78, p = .001 – significant improvement)
Critical thinking/ problem solving	Collegiate Learning Assessment Approximately 100 FR and 100 SR students	The Collegiate Learning Assessment is a nationally norm-referenced written assessment which focuses on evaluating students writing ability and critical thinking/analytic reasoning. Students are randomly administered a 45 or 90 min version of the CLA. Student scores are norm referenced according to comparable institutions and student ability (assessed by ACT or SAT score).	2012-2013 CLA Administration (Unadjusted/Raw Scores) Freshman Performance Total CLA Score 1038 Performance Task Score 1020 Analytic Writing Task Score 1060 Senior Performance Total CLA Score 1143 Performance Task Score 1148 Analytic Writing Task Score 1139

Kansas State University

Kansas State University uses five university-level Student Learning Outcomes – Knowledge, Communication (Oral and Written), Critical Thinking, Diversity, and Academic and Professional Integrity. Mathematical or Quantitative Reasoning is one of our eight areas included in our general education program, the K-State 8.

Kansas State assesses student learning outcomes at the program level. Faculty members from each academic program determine the most appropriate method for assessing Oral and Written Communication, and Critical Thinking in the context of their field of study. Students are assessed using these methods at the exit point of their programs. The assessments range from final projects, cumulative assignments, and specific, targeted exam questions. They all meet the expected rigor for assessing the university-level student learning outcomes.

The fact that many programs use a common rubric allows the university to aggregate results of the program level assessments. This rubric breaks the levels of achievement into three categories:

1. Achievement below acceptable minimum benchmark,
2. Achievement at or above minimum benchmark, but below proficient benchmark, and
3. Achievement at or above proficient benchmark.

The tables below contain results from the two most recent academic years (AY 2013 and AY 2012) for which K-State has full data. (Note: Since not all programs use this rubric, the tables only represent a portion of the total assessments across the university.)

Oral Communication, Written Communication, and Critical Thinking

Academic Year 2012-2013:

Area Assessed	Achieving below acceptable minimum benchmark	Achieving at or above minimum benchmark but below proficient benchmark	Achieved at or above the proficient benchmark
Oral Communication (941 students assessed)	16 students (2%)	42 students (4%)	883 students (94%)
Written Communication (1,384 students assessed)	66 students (5%)	160 students (12%)	1,158 students (83%)
Critical Thinking (3,353 students assessed)	198 students (6%)	337 students (10%)	2,818 students (84%)

Academic Year 2011-2012:

Area Assessed	Achieving below acceptable minimum benchmark	Achieving above minimum benchmark but below proficient benchmark	Achieved at or above the proficient benchmark
Oral Communication (1,124 students assessed)	62 students (6%)	205 students (18%)	857 students (76%)
Written Communication (1,621 students assessed)	137 students (9%)	441 students (27%)	1,043 students (64%)
Critical Thinking (2,599 students assessed)	199 students (7%)	355 students (14%)	2,047 students (79%)

Mathematical or Quantitative Reasoning

To directly assess mathematics competence that would be representative of all students at Kansas State University, we identified the number and percentage of students who successfully completed MATH 100 (College Algebra) with a grade of C or higher.

Academic Year	Number of Students Completing Math 100	Number of Students receiving C or higher	Percent of Students receiving a C or higher
2013	2,154	1,533	74%
2012	2,044	1,434	70%

Pittsburg State University

Mathematics/quantitative/analytical reasoning

- PSU Math Rubric used to evaluate students' work on specific items in two courses: Quantitative Reasoning and Elementary Statistics.
- Grades in general education mathematics courses: percentage of students achieving a grade of C or higher in courses reflects the average of two or three semesters (excluding students who withdrew).

PSU Rubrics: Average Score	*2011-12*	*2012-13*
MATH 133 *Quantitative Reasoning*	**78%**	**86%**
MATH 143 *Elementary Statistics*	-----	**74%**

% Students with grade of C or higher	*2010-11*	*2011-12*	*2012-13*
MATH 133 *Quantitative Reasoning*	**72%**	**79%**	**74%**
MATH 143 *Elementary Statistics*	**82%**	**77%**	**77%**

Written and oral communication

- PSU Writing Rubric used to evaluate students' papers in two courses: *English Composition* and *Introduction to Research Writing*.

- PSU Oral Communication Rubric used to evaluate students' informative and persuasive speeches in *Speech Communication*.

- Grades in general education writing and oral communication courses: percentage of students achieving a grade of C or higher in courses reflects the average of two or three semesters (excluded students who withdrew).

- Collegiate Learning Assessment used to benchmark to national results.

PSU Rubrics: Average Score	*2011-12*	*2012-13*
ENGL 101 *English Composition*	**27%**	**24%**
ENGL 299 *Introduction to Research Writing*	**56%**	**40%**
COMM 207 *Speech Communication:* Informative	-----	**90%**
COMM 207 *Speech Communication:* Persuasive	-----	**88%**

% Students with grade of C or higher	*2010-11*	*2011-12*	*2012-13*
ENGL 101 *English Composition*	**78%**	**73%**	**79%**
ENGL 299 *Introduction to Research Writing*	**88%**	**88%**	**91%**
COMM 207 *Speech Communication*	**95%**	**95%**	**95%**

CLA Average Score (1-6 possible score) FR freshmen, SR seniors	*PSU 2011*	*PSU 2012*	*PSU 2013*	*National 2013*
Writing Effectiveness				
Performance Task	**FR 2.8** **SR 3.2**	**FR 2.3** **SR 3.3**	**FR 2.3** **SR 3.0**	**FR 2.9** **SR 3.5**
Make-an-Argument	**FR 2.7** **SR 2.8**	**FR 2.3** **SR 3.2**	**FR 2.5** **SR 3.3**	**FR 3.3** **SR 3.7**
Critique-an-Argument	**FR 2.6** **SR 3.0**	**FR 2.4** **SR 3.3**	**FR 2.2** **SR 3.1**	**FR 2.9** **SR 3.5**
Writing Mechanics				
Performance Task	**FR 2.8** **SR 3.2**	**FR 2.8** **SR 3.5**	**FR 2.7** **SR 3.4**	**FR 3.2** **SR 3.7**
Make-an-Argument	**FR 3.1** **SR 3.3**	**FR 2.9** **SR 3.7**	**FR 2.9** **SR 3.4**	**FR 3.4** **SR 3.8**
Critique-an-Argument	**FR 3.0** **SR 3.3**	**FR 3.0** **SR 3.7**	**FR 2.8** **SR 3.7**	**FR 3.4** **SR 3.9**

Critical thinking/problem solving

- Collegiate Learning Assessment used to benchmark to national results.

CLA Average Score (1-6 possible score) FR freshmen, SR seniors	*PSU 2011*	*PSU 2012*	*PSU 2013*	*National 2013*
Analytical Reasoning and Evaluation				
Performance Task	***FR 2.6*** ***SR 3.1***	***FR 2.4*** ***SR 3.3***	***FR 2.3*** ***SR 3.1***	***FR 2.9*** ***SR 3.4***
Make-an-Argument	***FR 2.7*** ***SR 2.9***	***FR 2.4*** ***SR 3.2***	***FR 2.5*** ***SR 3.3***	***FR 3.3*** ***SR 3.6***
Critique-an-Argument	***FR 2.5*** ***SR 2.9***	***FR 2.2*** ***SR 3.2***	***FR 2.2*** ***SR 3.2***	***FR 2.8*** ***SR 3.4***
Problem Solving - Performance Task	***FR 2.6*** ***SR 3.1***	***FR 2.4*** ***SR 3.2***	***FR 2.0*** ***SR 2.9***	***FR 2.7*** ***SR 3.3***

Note: Pittsburg State also uses the National Survey of Student Engagement to benchmark to peer and national results in all three areas. These results are available in the full report on the Kansas Board of Regents' website.

The University of Kansas

Student achievement at the University of Kansas is measured using locally developed mechanisms. Standardized national tests also have been piloted for possible use. All assessment activities provide the institution with performance information about one or more of the KU Core Goals.

	KU Core Goals (adopted 2012)	Alignment to Regents Reports on the Assessment of Student Learning
General Education Goals	Build core skills of Critical Thinking and Quantitative Literacy	*Mathematics/quantitative/analytical reasoning* *Critical thinking/problem solving*
	Strengthen Written and Oral Communication	*Written and oral communication*
	Develop a Background of Knowledge	
Advanced Education Goals	Respect Human Diversity and Expand Cultural Understanding and Global Awareness	
	Practice Social Responsibility and Demonstrate Ethical Behavior	
	Gain the Ability to Integrate Knowledge and Think Creatively	

The historical assessment of General Education was a locally developed assessment activity that was conducted regularly between 1991 and 2012. Faculty members conducted interviews with graduating seniors to determine how the institution met the goals of general education. In addition, students completed a self-assessment in order to reflect on their experience with general education.

The findings of the Assessment of General Education provided the fundamental basis for the revision of KU's general education goals and the development of the KU Core. The KU Core is organized around the KU Core goals listed above and a curriculum to support the goals began in the Fall of 2013. Departments nominate courses that are designed to address the KU Core goals and the learning outcomes defined for each goal. For a course to be accepted into the KU Core, departments must provide assessment plans that clearly show how students will be assessed as meeting the KU Core goal.

Mathematics/quantitative/analytical reasoning

The University of Kansas conducted a pilot study of the ETS Proficiency Profile in Spring 2012. During the baseline study, approximately 100 senior (upper division) students and approximately 200 freshmen and sophomore (lower division) students were assessed. A majority of both lower (app. 49%) and upper division (app. 75%) students tested as proficient at level one, which requires a general understanding of mathematics. At the more complex level two, a minority (app. 23%) of lower division students tested as proficient, with just over 50% proficient being not proficient. A majority (app. 52%) of upper division students tested as proficient at level two, with some 23% testing as not proficient. It was determined that the ETS Proficiency Profile may not be well suited to assessing lower-division student achievement of general education outcomes, since many lower-division students do not complete their math-related studies in the first two years. It may, however, be appropriate to assess math-related skills at the senior level.

Written and oral communication

Assessment Mechanism(s): AAC&U Written Communication VALUE Rubrics

Written communication is evaluated across all undergraduate departments. Student work is evaluated by faculty using VALUE Rubrics (Valid Assessment of Learning in Undergraduate Education) developed by the Association of American Colleges and Universities (AAC&U). The rubrics were developed nationally by diverse teams of faculty and other academic and student affairs professionals from a wide range of institutions. The assessment of written communication using the VALUE rubrics has been conducted since 2011. Sixty-four departments have participated in this process. First-year seminars also assess and provide feedback on student work using the AAC&U Written Communication VALUE Rubric.

In Fall 2011, KU began the Assessment of Undergraduate Written Communication. Each semester, large departments (85+ majors) identified two courses to participate in the assessment. Smaller departments (85 or fewer majors) were asked to identify one course for participation. Results across all rubric dimensions reflected that 67% of 3400 students were proficient in written communication, with 25% improving and 8% testing as not proficient.

Using the ETS Proficiency Profile, KU determined that some 52% of lower division and 85% of upper division students tested as proficient at Level 1 Writing, both above the national benchmarks. At level two, only about 12% of lower division and 35% of upper division tested ass proficient.

Assessment Mechanism(s): Locally developed rubrics for Oral Communication

Oral communication is evaluated by faculty in the Communications Studies department. Throughout the semester, student speeches are assessed using a rubric developed by faculty members in the department. The rubrics are used to provide feedback to the individual students to improve their oral communication abilities as well as to collect aggregate data about the effectiveness of oral communication at the institution. To date, two semesters of students who have taken COMS 130 have been evaluated using this assessment process – that equates to over 1200 students and over 2500 student artifacts that have been assessed. Overall test results of 2,525 students show that 60% tested as proficient, 32% as improving and 8% as not proficient.

Critical thinking/problem solving.

Assessment Mechanism(s): AAC&U VALUE Critical Thinking Rubric - administered in all First-Year Seminars (FYS)

First year seminar courses use the AAC&U VALUE critical thinking rubric to assess critical thinking and written communication. Students in those courses submit an assignment for review using the rubrics and received feedback in order to improve. The data from those evaluations is aggregated and used to improve the first year seminar curriculum. The assessment of students in first year seminar programs is starting its second year.

Using a critical thinking rubric, it was determined that, of 115 students tested, 80% were proficient, 19% improving and 1% not proficient in critical thinking. Using the ETS Proficiency Profile, approximately 86% of lower division and 46% of upper division proved not proficient, while 9% of lower and 31% of upper division students were found to be improving. Approximately 2% of lower and 19% of upper division students were rated as proficient, which ranked at or above the national benchmark for proficiency in critical thinking.

Wichita State University

Wichita State uses the Collegiate Learning Assessment in combination with many other evaluative techniques to measure student learning. Its goal in evaluating student learning is to evaluate a cross-section of direct and indirect measures, realizing that one measure is insufficient to get at the varied learning styles of our students. The university uses its *Foresight* 2020 dashboard (see full report on KBOR website) to measure overall performance, i.e., looking for data movement in a positive direction in all areas assessed. The following shows results of assessing critical thinking using the Collegiate Learning Assessment (CLA):

1. Task assessed: critical thinking (analytical reasoning, problem solving and written communication)

2. Cohorts assessed: representative sample of seniors in 2009, 2010, 2011, 2012, 2013

3. Assessment instrument: Collegiate Learning Assessment

4. Methods/Results:

    a. Students' written responses to CLA defined tasks are graded to assess their abilities to think critically (reason analytically, solve problems, and write clearly and persuasively).
    b. Students take one Performance Task or a combination of one Make-an-Argument prompt and one Critique-an-Argument prompt. Each assesses analytical reasoning, problem solving, and writing.
    c. WSU's score indicates the degree to which the observed senior mean CLA score meets, exceeds, or falls below expectations established by the:

        i. Seniors' Entering Academic Ability scores (EAA = SAT Math + Critical Reading score, or ACT Composite score, or a proxy to the SAT or ACT called a Scholastic Level Exam [SLE] score on the SAT scale)
        ii. Mean CLA performance of freshmen at that school, which serves as a control for selection effects not covered by EAA.
        iii. Score results:
            1. 2009 = 103% (senior score 1288; expected score 1247)
            2. 2010 = 103% (senior score 1296; expected score 1258)
            3. 2011 = 100% (senior score 1265; expected score 1260)
            4. 2012 = 99.7% (senior score 1181; expected score 1184)
            5. 2013 = 99.6% (senior score 1174; expected score 1179)

5. Evaluation: The General Education Committee evaluates student learning outcomes on an annual basis. They have found that students are performing "at" or "near" expectations on the CLA and have recommended continued collection and analysis of data before any modifications (if any) are made. There are no statistical differences between the scores listed above.

Washburn University

In order to establish a national benchmark for comparison purposes, Washburn University began administering the ETS Proficiency Profile beginning Fall 2009. This standardized instrument has been administered annually since that time to a representative subset of first time freshmen and seniors in order to assess their critical thinking, reading, writing, and mathematics skills. The subcomponent and composite scores for 2013 are included.

Critical Thinking

2013:	WU	Nat'l
FR:	110.3	110.1
SR:	111.7	112.8
Diff:	1.4	2.7

Mathematics

2013:	WU	Nat'l
FR:	112.7	112.1
SR:	114.0	114.2
Diff:	1.3	2.1

Writing

2013:	WU	Nat'l
FR:	113.0	113.0
SR:	114.7	114.9
Diff:	1.3	2.1

Composite

2013:	WU	Nat'l
FR:	439.3	438.1
SR:	444.6	447.8
Diff:	5.3	9.7

The mean subscores and composite for seniors were compared with the mean subscores and composite for first time freshmen and tested for statistical significance using a .05 significance level. Statistical significance at the .05 level indicates the difference between the mean scores of freshmen and seniors is not a chance occurrence. For 2013, mean scores for Washburn's seniors were significantly higher than Washburn's freshmen scores on the critical thinking, mathematics, and writing tests as well as composite scores. These are real differences that are very likely not due to chance, indicating that Washburn's seniors earned higher scores on these tests than Washburn's freshmen. Nationally, seniors also earned higher scores than freshmen on the components of the inventory as well as the composite. Washburn's freshmen performed at or above the national average on the critical thinking, mathematics, and writing tests, as well as on composite scores.

Washburn's seniors performed slightly below, but near, the national average on the critical thinking, mathematics, and writing tests. Seniors' composite scores, however, were three points lower than the national average. In terms of mean differences between seniors and freshmen, Washburn's scores were at the national average for the writing test, but below the national average on the critical thinking and mathematics tests. The mean difference between Washburn's seniors and freshmen was also below the national average in terms of composite scores.