

QI Summary Report – 2015 General Education Assessment of Student Learning: Writing

General Education Student Learning Assessment - Overview

Each spring, NMSU's Committee for the Assessment of Student Learning in General Education (CASL-GE) administers program level assessment of student learning across general education (GE). The process for each assessment cycle is as follows.

1. A working team* of the CASL-GE develops an assignment and rubric to measure student learning on a selected set of GE learning outcomes. Identified outcomes may be confined to a specific state-designated GE area, or may include outcomes from multiple areas. State designated GE areas are Communication, Math, Lab Sciences, Social Sciences, Arts and Humanities.
2. The assignment is piloted in 1-2 of the classes that participate in the annual assessment process, as described in #4-7 below.
3. Student responses to the pilot assignment are scored by members of the CASL-GE, and revisions are made to the assignment and rubric as needed. The assignment and rubric are then used in the ensuing year as the core GE assessment of student learning.
4. Each fall a representative group of Viewing a Wider World (VWW) courses is selected for participation. VWW courses are optimal data collection points because the population of these courses reflects the target population for the assessment - students in their junior and senior year who have completed a significant portion of required lower-level GE courses. Historically, courses have been randomly selected.
5. Faculty teaching the selected VWW courses are notified of their selection, and then asked to work with the Director of Assessment to schedule a class time to administer the assessment. Online course instructors are provided instructions for online student participation in the assessment.
6. The designated assignment is administered in the first half of the spring semester. Members of the CASL-GE administer the assessment in face-to-face classes, and an online administration is used for students in online courses. Participation is voluntary and occurs during regularly scheduled class time. Aggie IDs are collected to provide demographic information about student participants.
7. Student work is collected at the end of each administration and through the online portal, and prepared for the scoring session.
8. A scoring session is held in the latter part of the spring semester. In the scoring session, representative faculty from across the institution convene, review the assignment, participate in a norming session about how to score student work, and then blind-score all student work. Each student assignment is independently scored by two faculty members.

**The CASL-GE working team may included NMSU faculty members outside of the CASL-GE*

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9. Scores from both graders are recorded and are used to generate an average student score for each component of the assignment.
10. The Office of Institutional Analysis provides data analysis to the CASL-GE for review and the CASL-GE writes an annual report of the findings. Inter-rater reliability scores across faculty reviewers are also calculated and reported.
11. Findings are presented to the campus community by the CASL-GE in an open forum the following fall.

Assessment of Student Writing

In Fall 2013, a designated working subcommittee of the CASL-GE developed an assignment to assess student writing. The assignment was administered in a pilot study Spring 2014. After scoring by CASL-GE members, revisions to the assignment and scoring rubric were made. Full implementation of the assessment of student writing, using the revised assignment and scoring rubric, occurred Spring 2015.

The Instruments

For the writing assignment, students were provided a brief definition and description of grade inflation, including information that some researchers point to strong evidence of grade inflation over the last century, while others argued – based on analysis of GPA over the last several decades – that there is no significant evidence that grade inflation exists. Students were then asked, based on their own personal experiences at NMSU, to write a position essay about whether or not grade inflation exists at NMSU. Students were told that their target audience was faculty members, and that they should write a logical and convincing argument to persuade, inform and engage faculty about their perspective on grade inflation at NMSU.

Students were told that their essay would be evaluated on how effectively they

- Organized their thinking to express their viewpoints clearly, concisely and effectively
- Used rhetorical strategies to persuade, inform and engage the audience
- Used appropriate grammar and mechanics so that they enhance rather than detract from their argument

The rubric components for scoring student work are listed below and correspond to the New Mexico State Common Core (SCC) competencies (learning outcomes) in Communication (Area 1) which also align with the NMSU's Baccalaureate Experience (BE) learning outcome, *Effective Communication*.

- Order is logical/convincing supporting points to primary purpose (SCC Area 1.b.)
- Effective strategies to persuade, inform and engage (SCC Area 1.c.)

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- Employ writing processes using correct diction, syntax, grammar and mechanics (SCC Area 1.d.)

Assignments were scored on each of the rubric components as

- “Not evident – 0”
- “Emerging – 1”
- “Competent – 2”
- “Exemplary – 3”

Definitions/descriptions of each level were included in the rubric.

Scoring Process

The scoring session began with an introduction and description of the assignment. Faculty scorers were reminded that they should consider that student responses were a “first draft” response to the prompt (students did not have opportunity to review or revise responses). Faculty then participated in a norming exercise before they began independently scoring student work.

Participants

In total, 227 students completed the assessment. Of those, 203 provided a valid Aggie ID number.

- 157 students with a valid Aggie ID were juniors or seniors
- 46 student with a valid Aggie ID were freshman or sophomores

Of primary interest for this study were the 157 students with junior or senior standing with a valid NMSU ID. There were some demographic discrepancies between students who participated in the study and the general population of NMSU’s juniors and seniors. This likely reflects similar representations of students enrolled in the particular VWW courses selected for data collection.

Results

Overall inter-rater reliability across faculty scorers/graders, using Krippendorf’s alpha, was 0.667. Inter-rater reliability for each rubric component is identified on Table 1.

Because Inter-rater reliability is not as high as we would like and the sample representation is not perfect, we refrain from drawing definitive conclusions from this data. Still, we believe the following trends are noteworthy, and warrant serious consideration.

The primary interest of this study is the percentage of junior/senior writing samples

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evaluated as “competent” or “exemplary.” Overall, 57% of juniors and seniors were rated as “competent” or “exemplary,” meaning that 43% were rated as below competent (“not evident” or “emerging”). By component, just over half of juniors and seniors scored competent or better on “organization” and “rhetorical strategies” (55% and 56% respectively). In contrast, 85% scored competent or better on “mechanics and grammar.” Table 1 provides detailed information on student performance across all components of the rubric.

Table 1: Student performance by rubric component

Statistics	Organization		Persuasive Strategies		Grammar/Mechanics		Overall	
	Percent	Obs.	Percent	Obs.	Percent	Obs.	Percent	Obs.
Range (%)								
<0.5	1%	1	1%	1	0%	0	1%	1
0.5-0.9	1%	2	1%	2	0%	0	1%	1
1.0-1.4	17%	26	17%	27	3%	5	13%	21
1.5-1.9	26%	41	25%	39	11%	18	29%	45
2.0-2.4	18%	29	27%	42	34%	54	31%	48
2.5-2.9	24%	37	17%	27	25%	39	22%	34
3.0	13%	21	12%	19	26%	41	4%	7
Total	100%	157	100%	157	100%	157	100%	157
Central Tendency								
Mean	1.92		1.88		2.30		2.03	
Median	2.00		2.00		2.50		2.00	
Condensed Range (%)								
<2.0	45%	70	44%	69	15%	23	43%	68
>=2.0	55%	87	56%	88	85%	134	57%	89
Total	100%	157	100%	157	100%	157	100%	157
Krippendorff's Alpha								
Alpha	0.568		0.592		0.480		0.545	

Scores suggest that students’ writing deficiencies are associated more with higher-order processes required for organizing information and formulating a persuasive argument than with issues of mechanics and grammar. This aligns with the priorities of NMSU’s Quality Initiative for developing students’ writing in the disciplines, specifically with its emphasis on writing to learn rather than on writing mechanics.

GE assessments do not tackle questions about *where* students develop GE competencies

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during their academic careers, nor are they specifically designed to collect comparison data between freshmen/sophomores and juniors/seniors. However, because there are a fair number of freshmen/sophomores in the VWW courses, it is possible to compare performance between freshman/sophomores and juniors/seniors, from the data collected. Comparison data are shown in Table 2. Although upper class students score slightly higher than lower class students in every category, none of the differences are statistically significant and the effect size is quite small.

Table 2: Comparison of freshmen/sophomores with juniors seniors

Area	Lower Class Mean	Upper Class Mean	Mean Difference	Effect Size	Significance
Organization	1.81	1.92	-0.11	-0.16	NS
Persuasive Strategies	1.80	1.88	-0.08	-0.11	NS
Grammar/Mechanics	2.11	2.30	-0.19	-0.30	NS
Overall	1.91	2.03	-0.12	-0.21	NS