**GE AREA A3: CRITICAL THINKING**

**SLO Evaluation Report July 2025:**

**Background/Description of GE Program ePortfolio:**

Prior to the 2017-2018 AY, departments/programs were responsible for assessing GE student learning outcomes and submitting a report every year for the GE Committee to review. This system had several weaknesses. Departments and programs were responsible for deciding which of the two to four outcomes designated for a specific GE Area to assess; thus, some outcomes were evaluated multiple times within a year and others were not evaluated at all in certain years. It was also not possible for departments to access and evaluate a representative sample of student work, nor was it possible to compare the results from GE courses in the same GE Area taught by different departments/programs, because each department/program used its own criteria/rubrics. Finally, the GE Committee was not able to review and analyze the GE assessment reports in a comprehensive fashion, since the committee was also tasked with reviewing all GE curriculum proposals, as well as with discussing and updating GE policies and procedures.

Therefore, Fresno State developed a proposal for a new system of evaluating GE student learning outcomes during the 2014-2015 AY. The proposal was approved by Fresno State’s Academic Senate in May 2017 and by the President in August of 2017. Essentially, all freshmen and transfer students admitted to Fresno State beginning in Fall 2018 would submit one designated assignment aligned to one GE student outcome from lower-division (for freshmen) and upper-division (for freshmen and transfer students) GE courses to a GE Program ePortfolio. Students will also write 300-word reflections (first-year students write three and transfer students write one) about their learning and submit these to the GE Program ePortfolio. The GE Program ePortfolio was set up by the Director of Assessment and students were automatically enrolled. Handouts, videos, and other resources that were posted previously to Blackboard were uploaded to Canvas when the campus transitioned from Blackboard to Canvas.

During the first year of implementation (2017-2018 AY), efforts focused on electing members to the new GE Assessment Subcommittee and on approving common rubrics to be used to evaluate GE student learning outcomes. Fresno State’s GE student learning outcomes were approved by the Academic Senate in 2010. These forty outcomes were originally to be evaluated on a five-year rotating schedule. With the addition of Area F to the GE curriculum, the outcomes are now evaluated on a six-year schedule. With the implementation of the new Cal-GETC GE pattern, effective in fall 2025, the future rotation schedule was changed by the GE committee to reflect the new pattern (Appendix A).

The ePortfolio submission process changed Fall 2023. The original ePortfolio submission process was creating difficulties for students, advisors, and faculty. Students were responsible for submitting the assignment designated by their professor. If students did not submit the assignments as required, their registration could be blocked. This caused consternation among the students. It also resulted in numerous consultations between students, their GE professors, and (especially) their advisers as they tried to meet the ePortfolio requirement. These meetings took time away from the primary responsibilities of campus advisors and faculty members.

These difficulties led to discussions between Kathy Dunbar, Assistant Director of the University Advising Center and the director of assessment. Ms. Dunbar asked if there was a way that the designated GE ePortfolio student assignments could be automatically submitted to their ePortfolio at the same time they submitted the assignment to their professor in Canvas. After discussing the possibility of this solution with JoLynne Blake, an instructional designer in the Office of Ideas, Ms. Blake and the assessment director reached out to the Canvas support team to determine whether this type of concurrent assignment submission process would be possible. The Canvas staff determined that such a process was technically feasible, and Provost Fu agreed to fund the conversion. The university contracted with Canvas to develop an assignment LTI that eliminates the need for students to submit the designated assignments to their ePortfolio. When GE faculty set up their course in Canvas, they designate which assignment is the ePortfolio assignment. When students submit the designated assignment to their professor, the LTI duplicates the assignment and seamlessly routes that copy to their ePortfolio.

The new ePortfolio system was successful and there are now a sizable number of assignments available for assessment in each GE Area.

In AY 2024-25, student work in Area A was assessed. The assessment process and the results for Area A, Learning Outcome 3, are discussed below.

**Area A3 Assignment Selection and Assessment Process**

**Area A3 (Critical Thinking) Learning Outcomes**

Upon completion of an Area A3 course, students will be able to:

1. Recognize, analyze, evaluate, and construct arguments in ordinary language

2. Distinguish between inductive and deductive reasoning

3. Identify common fallacies of reasoning

4. Analyze and evaluate the various types of evidence for various types of claims.

**Assignments**

A wide variety of assignments were available for Area A3 assessment in students’ ePortfolios. Assignments came from GE courses offered by a diversity of programs: Africana Studies, Chicano and Latin American Studies, the College of Science and Mathematics, Communication, Computer Science, Geography, Natural Science, Sociology, and Women’s, Gender, and Sexuality Studies.

The Director of Assessment randomly selected 104 assignments from students’ ePortfolios. He read the assignments and assigned them to the A3 Learning Outcome that best aligned with the content of the student’s paper. The specific assignments that aligned with each of the learning outcomes is provided in the discussion below.

**Assessment Process**

The GE Assessment Subcommittee was responsible for assessing the student work. Committee members applied the rubric that had been approved by the GE Assessment Subcommittee before the first Area A assessment in 2018-19.

The assessment subcommittee met regularly during academic year 2024-25. During the meetings, the process for evaluating student work was discussed and committee members were able to ask questions about the assessment. Ten faculty members from seven colleges participated in the assessment. The papers for each learning outcome were assigned to two subcommittee members. Those members evaluated the student work individually and then compared results. If the two faculty members disagreed about whether an assignment should be rated proficient or not proficient, they met to discuss the evaluation and determine whether a consensus could be reached. If a consensus could not be reached, the Director of Assessment broke the tie.

**GE Area A3 Assessment Results**

**A3 Learning Outcome 1. Students will be able to recognize, analyze, evaluate, and construct arguments in ordinary language.**

Assignments that aligned with this learning outcome included:

* Analysis of a journal article
* Constructing a persuasive speech
* Analyzing arguments in an article
* Analyzing arguments for and against a ballot proposition
* Constructing an argumentative essay

There were three criteria for evaluation of student performance on Learning Outcome 1. The first was for “recognizing arguments,” the second was for “analyzing arguments,” and the third was for “evaluating arguments.” Students were classified as proficient if they were rated either advanced or proficient. Students were not proficient if they were rated developing. These were the results:

**Results for A3, Learning Outcome 1**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Recognize Argument | Analyze Argument | Evaluate Argument |
| Proficient | 25/28 (89.3%) | 17/28 (60.7%) | 12/28 (42.9%) |
| Developing | 3/28 (10.7%) | 11/28 (39.3%) | 16/28 (57.1%) |
| Inter-rater reliability | 25/28 (89.3%) | 24/28 (85.7%) | 22/28 (78.9%) |

The students’ results were varied on this learning outcome, with 89.3% being rated proficient on the first criterion (just below Fresno State’s benchmark of 90%), whereas only 60.7% were rated proficient on the second criterion and only 42.9% were proficient on the third. For the assignments rated proficient, faculty reviewers offered comments such as “analysis well supported,” good use of evidence to build arguments,” and “deep analysis of support provided for arguments.” The papers that developed strong arguments were well organized. For assignments rated developing, comments included “lack of depth in evaluating arguments,” “did not provide standards for evaluating argument quality,” did not apply standards to evaluate arguments effectively,” or “insufficient evaluative analysis.”

Inter-rater reliability was 84.5% for this learning outcome, below Fresno State’s benchmark of 90%.

**A3 Learning Outcome 2. Students will be able to distinguish between inductive and deductive reasoning.**

Assignments that aligned with this learning outcome included:

* Analysis of a news article
* Analysis of interviews on social issues
* Constructing an argumentative essay
* Analysis of arguments in music
* Identify inductive and deductive arguments in an article or book

There was one criterion for evaluation of student performance on Learning Outcome 2, focused on how well students distinguished between inductive and deductive reasoning. Students were classified as proficient if they were rated either advanced or proficient. Students were not proficient if they were rated developing. These were the results:

**Results for A3, Learning Outcome 2**

|  |  |
| --- | --- |
|  | Distinguish Between Inductive/Deductive Reasoning |
| Proficient | 15 (75%) |
| Not Proficient | 5 (25%) |
| Inter-rater reliability | 19/20 (95%) |

The results demonstrated a solid level of achievement on this learning outcome, with 75% of the assignments rated proficient. This was below Fresno State’s benchmark of 90%. The 25% that were not proficient received a score of 2 (developing), rather than 1 (incomplete). The papers that were rated proficient by faculty reviewers had a clear specification of inductive and deductive reasoning, or a clear specification of one and an adequate specification of the second. The papers that were rated proficient needed a more explicit delineation of where inductive or deductive reasoning was found or the author’s delineation was difficult to comprehend.

Inter-rater reliability on this learning outcome was 95%, exceeding Fresno State’s benchmark of 90%.

**A3 Learning Outcome 3. Students will be able to identify common fallacies of reasoning.**

Assignments that aligned with this learning outcome included:

* Analysis of fallacies in an election flyer
* Define fallacies and provide examples in a PowerPoint presentation
* Identify fallacies in an article

There was one criterion for evaluation of student performance on Learning Outcome 3, focused on how well students identified fallacies of reasoning. Students were classified as proficient if they were rated either advanced or proficient. Students were not proficient if they were rated developing. These were the results:

**Results for A3, Learning Outcome 3**

|  |  |
| --- | --- |
|  | Identification of Fallacies |
| Proficient | 25 (80.6%) |
| Developing | 6 (19.4%) |
| Inter-rater reliability | 31/31 (100%) |

The results demonstrated a good level of achievement on this learning outcome, although Fresno State’s benchmark of 90% was not met. Nineteen of the students who were rated proficient received a rating of advanced by both faculty reviewers. Each of the six students who were not rated proficient received a score of 2 (developing) rather than 1 (incomplete). The papers that were rated proficient identified several different logical fallacies, defined the fallacies clearly, and explained how the arguments being analyzed were fallacious. The papers that were rated developing presented a limited number of fallacious arguments and/or failed to explain why the arguments under consideration were fallacious.

The inter-rater reliability for this learning outcome was 100%.

**A4. Learning Outcome 4. Students will be able to analyze and evaluate the various types of evidence for various types of claims.**

Assignments that aligned with this learning outcome included:

* Analysis of evidence in a television program or movie
* Analyze evidence in an argument on a social issue
* Develop an argument with evidence
* Provide evidence to support claims on an issue

There were two criteria for evaluation of student performance on Learning Outcome 4. The first was for “analysis of evidence linked to specific claims” and the second was for “evaluate evidence linked to specific claims. Students were classified as proficient if they were rated either advanced or proficient. Students were not proficient if they were rated developing. These were the results:

**Results for Area A3, Learning Outcome 4**

|  |  |  |
| --- | --- | --- |
|  | Analysis of Evidence | Evaluation of Evidence |
| Proficient | 23 (92%) | 23 (92%) |
| Developing | 2 (8%) | 2 (8%) |
| Inter-rater reliability | 24/25 (96%) | 22/25 (88%) |

The students demonstrated a high level of achievement on this learning outcome, with 92% being rated proficient on each criterion. This exceeds Fresno State’s benchmark of 90%. It is also noteworthy that both faculty members rated eight students as advanced in “analysis” and one of the reviewers rated another seven students as advanced. For “evaluation,” both faculty members rated three students as advanced and one of the reviewers rated seven students as advanced. The papers that were rated advanced or proficient used credible evidence consistently (and most of the sources were scholarly) and the evidence was relevant to the claims that were advanced. The papers that were rated developing used a limited number of evidence sources and did not consistently use evidence to support the claims being made.

Inter-rater reliability was 92% for this learning outcome, exceeding Fresno State’s benchmark of 90%.

**CONCLUSION**

**APPENDIX A GE Assessment Schedule Under the Cal-GETC Pattern**

AY 24-25 Subject Area 1 (English Composition, Critical Thinking/Composition, Oral

Communication)

AY 25-26 Subject Areas 2 and 5 (Mathematical Concepts/Quantitative Reasoning and

Physical and Biological Sciences)

AY 26-27 Subject Area 3 (Arts & Humanities)

AY 27-28 Subject Area 4 (Social and Behavioral Sciences)

AY 28-29 Subject Area 6 (Ethnic Studies)

AY 29-30 Upper Division Area 2/5, 3, and 4

**Faculty Reviewers for AY 2024-25: Dr. Alaeddin Bani Milhim, Dr. Mario Banuelos, Dr. Amila Becirbegovic, Dr. Daniel Calleros, Dr. Amrit Deol, Dr. Harkirat Bal, Dr. Jamie Levitt, Dr. Katherine Fobear, Dr. Nupur Hajela, Dr. Sunantha Teyarachakul.**

**University Director of Assessment: Dr. Douglas Fraleigh**