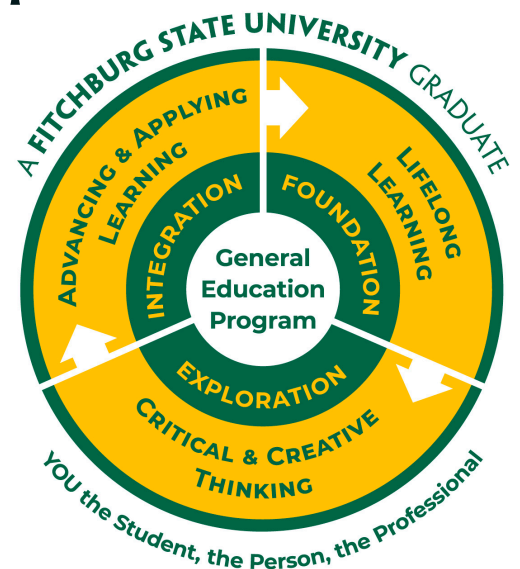


Learning Outcomes Assessment Report 2024

Fine Arts Expression & Analysis
Historical Inquiry & Analysis
Literary Inquiry & Analysis
Scientific Inquiry & Analysis

Fitchburg State University
General Education Program



General Education Program Learning Outcomes Assessment Report 2024

Fine Arts Expression & Analysis, Historical Inquiry & Analysis, Literary Inquiry & Analysis, Scientific Inquiry & Analysis

Process:

In order to assess the new General Education Program, all instructors of courses that receive learning outcome or skill designations will be asked to volunteer student work and participate in the assessment process. Assessment completed by faculty that “closes the loop” and provides data back to instructors in order to inform and strengthen instructional and program design is essential to the health and further refinement of our general education.

The General Education Ambassador and Assessment Program is comprised of faculty and librarians working together to develop campus communities of practice around our learning outcomes; participation in the assessment process is a key way of becoming active in these communities of practice.

The design of our assessment procedures will take place over a five-year period, with the General Education learning outcomes and skills organized into five groups. One group will be assessed each academic year. Assessment program design began in 2021-2022 with the development of Information Literacy, Reading, and Writing rubrics by faculty/librarians assembled through an open campus call ([see rubrics here](#)) and, since then, other rubrics have been developed each year. The **Fine Arts Expression & Analysis, Historical Inquiry & Analysis, Literary Inquiry & Analysis, Scientific Inquiry & Analysis** rubrics were created in 2022-2023.

In Spring 2024, the call for artifacts went out to campus to request instructors voluntarily submit student artifacts from fall 2023 and/or spring 2024 courses that have been officially designated through AUC with any of the following General Education attributes: Fine Arts Expression & Analysis, Historical Inquiry & Analysis, Literary Inquiry & Analysis, Scientific Inquiry & Analysis. Instructors were asked to submit student artifacts through a Google form stored only on the General Education Program Google Drive. Instructors could remove student names and other identifying information from artifacts themselves or they could submit as is, since all remaining identifying information was subsequently removed by the Director of Assessment before the artifacts were assessed. Assignment descriptions were also requested in case they were needed by assessors for clarification.

A second call went out in Spring 2024 to request assessors to assess the student artifacts submitted. To be eligible to assess, a faculty member or librarian must teach at least one course with the learning outcome designation that they will assess or offer library instruction in information literacy. Two assessors for each of the Fine Arts Expression & Analysis and Scientific Inquiry & Analysis learning outcomes and one assessor each for Historical Inquiry & Analysis and Literary Inquiry & Analysis were compensated for

their participation in Assessment Day on May 20, 2024. Originally, Assessment Day was intended to be an in-person event; however, to accommodate schedules and encourage more assessor participation, it was pivoted to virtual.

During Assessment Day, assessors had the opportunity to norm the assessment process, complete assessment of a selection of artifacts, and debrief on the process, including the effectiveness of the rubrics. Assessment Day was facilitated by the Director of Assessment, Cate Kaluzny, and Chair of the General Education Program, Kisha Tracy. The number of artifacts received did not meet the goal of 100 per learning outcome, and a minimal number of assessors meant that a smaller sample of artifacts were scored and analyzed in conjunction with the May 2024 Assessment Day than in the previous year.

The following describes the level of sampling and the total artifacts assessed:

Outcome	#Artifacts Total	#Artifacts Sample Scored	#Assessors
<i>Fine Arts Expression & Analysis</i>	26	26	2
<i>Historical Inquiry & Analysis</i>	45	10	1
<i>Literary Inquiry & Analysis</i>	87	15	1
<i>Scientific Inquiry & Analysis</i>	26	19	2
Totals:	184	70	6

Summary of Data:

The following illustrates the mean of means for each of the learning outcomes assessed: Fine Arts Expression & Analysis, Historical Inquiry & Analysis, Literary Inquiry & Analysis, Scientific Inquiry & Analysis.

Data is comprised assigning the following values: Emerging=1, Developing=2, Refining=3, Internalizing=4

Outcome	Mean of Means
<i>Fine Arts Expression & Analysis</i>	3.54
<i>Historical Inquiry & Analysis</i>	2.39
<i>Literary Inquiry & Analysis</i>	2.27
<i>Scientific Inquiry & Analysis</i>	3.18

(The above means or averages provide summary points of reference. It is more helpful to look at data below from each individual rubric to make comparisons between individual criteria for each outcome.)

As a reference for analyzing the following data: the “mean” is the “average.”

Also for reference, the [Fine Arts Expression & Analysis, Historical Inquiry & Analysis, Literary Inquiry & Analysis, and Scientific Inquiry & Analysis Rubrics](#) can be found here.

Fine Arts Expression & Analysis:

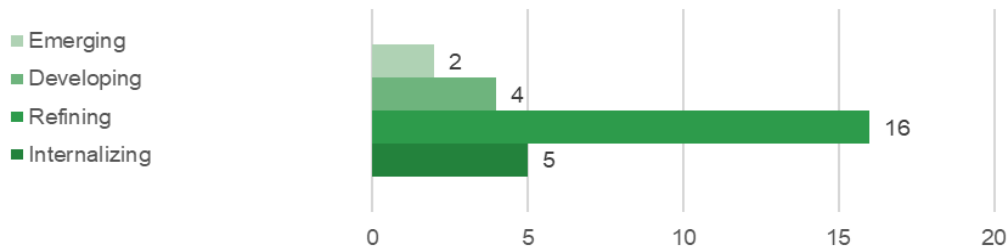
	Analyze or creatively employ...	Understand expressive works...	Compare and contrast works...	Understand how to identify and use...	Express one's own response ...
Mean	2.89	2.85	4	4	4
Sum	71	73	4	4	4

Full descriptions of rubric criteria:

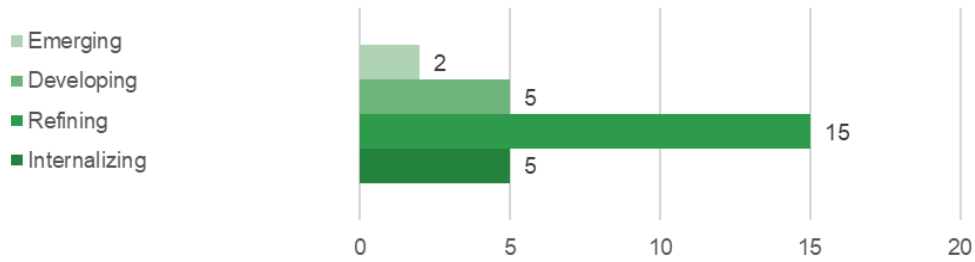
- Analyze or creatively employ visual, musical, or theatrical language as a means for the effective communication of ideas, feelings, and beliefs
- Understand expressive works as resulting from a network of artistic choices , and demonstrate an ability to describe and/or employ creative processes with greater sophistication
- Compare and contrast works in terms of their theoretical principles, form, meaning, and relation to cultural context, and draws conclusions about the relationship between the different underlying artistic ideas and beliefs that are revealed through the analysis of works of visual art, theater, or music
- Understand how to identify and use a range of visual art/music/theater historical approaches in the analysis of works (for example approaches influenced by social history, formalism, psychoanalysis or feminism)
- Express one's own response to particular works of visual art, music, or theater in a way that is thoughtful and informed, and demonstrates an understanding of deep structure of these works

Student work fell largely in the “refining” stages as scored by the assessors in the first two criteria in the rubric. However, the large majority of artifacts did not have elements of the final three categories as shown above. Please see the following series of charts for visuals related to the above data:

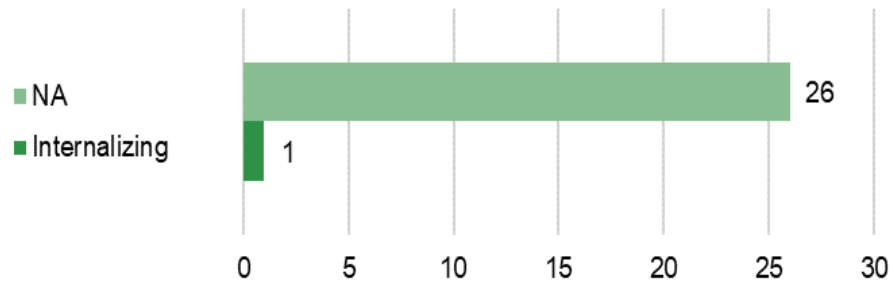
Analyze or creatively employ visual, musical or theatrical language...



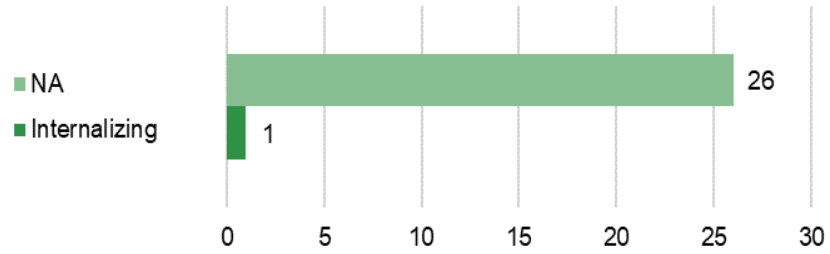
Understand expressive works as resulting from a network of artistic choices...



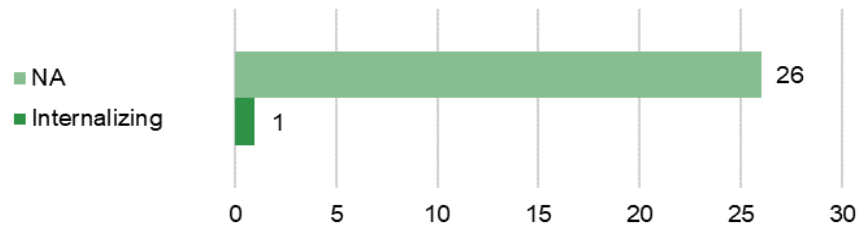
Compare and contrast works in terms of their theoretical principles, form, meaning, and relation to cultural context...



Understand how to identify and use a range of visual art/music/theater historical approaches...



Express one's own response to particular works of visual art, music, or theater...



Historical Inquiry & Analysis:

	Identify, read, and analyze...	Formulate historical questions...	Understand cause & effect relationships ...	Recognize contingency ...	Craft historical arguments ...
Mean	NA	2.2	2.6	2.0	2.5
Sum	NA	22	26	21	25

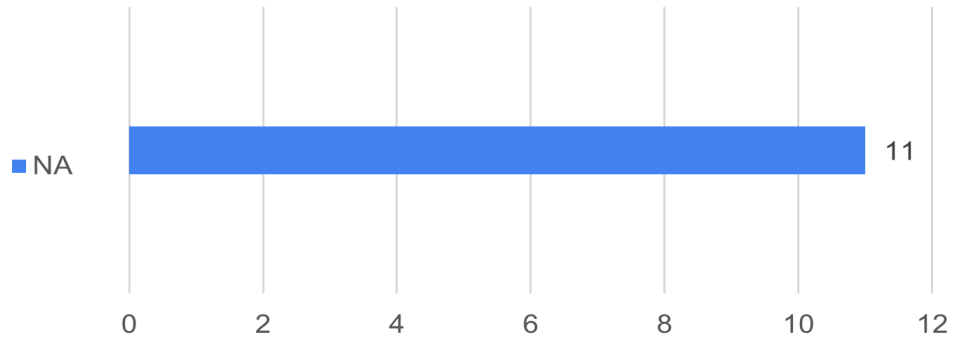
	Understand competing interpretations...	Communicate historical interpretations...	Utilize historical analysis...
Mean	2.3	2.5	2.6
Sum	25	27	29

Full descriptions of rubric criteria:

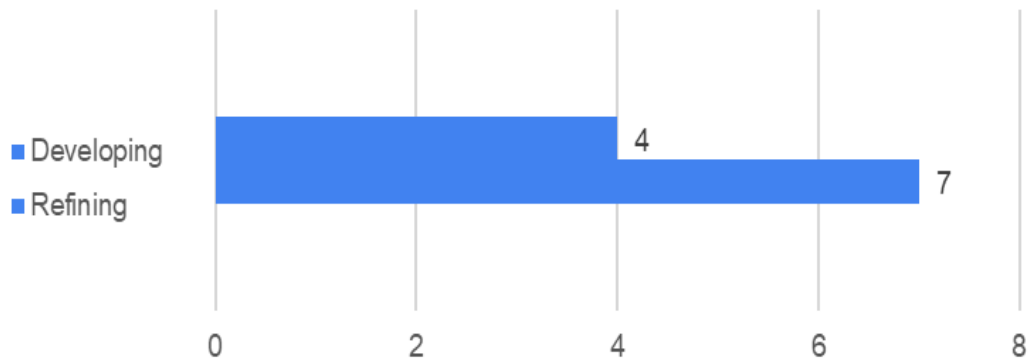
- Identify, read and analyze historical sources, extracting explicit and inferred information to identify historical perspectives
- Formulate historical questions, collect and interrogate evidence, place analysis in the historical context
- Understand cause-and-effect relationships considering the importance of individuals, ideas, and chance
- Recognize contingency and avoid teleological fallacies, lineal thinking, and presentism
- Craft historical arguments by generating informed hypotheses based on historical evidence
- Understand competing historiographical interpretations with attention to argumentation and the use of evidence
- Communicate historical thinking clearly and effectively through writing and for a variety of audiences
- Utilize historical analysis to inform civic learning and engagement

Student work fell largely in the “developing” and “refining” stages as scored by the assessor. The fourth criteria was the exception to this and fell in the NA category. Please see the following series of charts for visuals related to the above data:

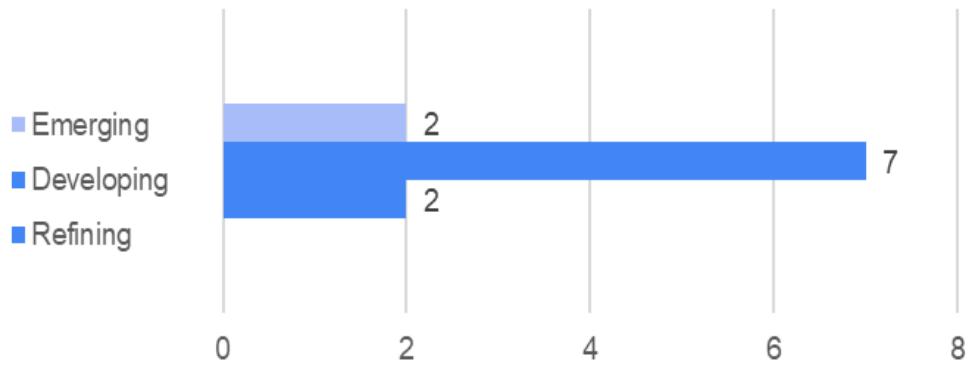
Identify, read and analyze historical sources...



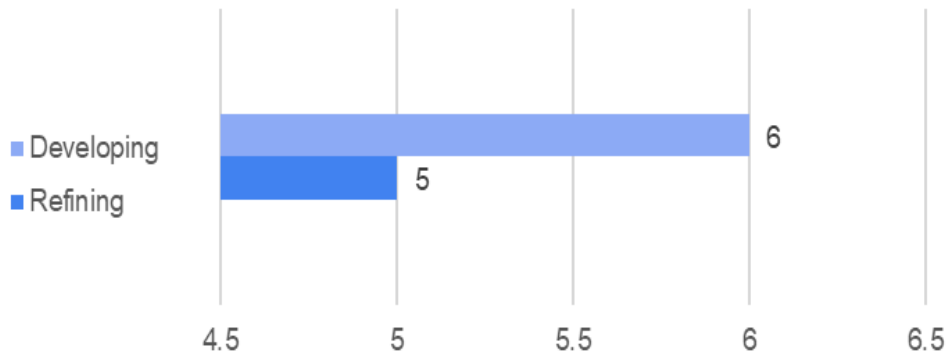
Understand cause and effect relationships...



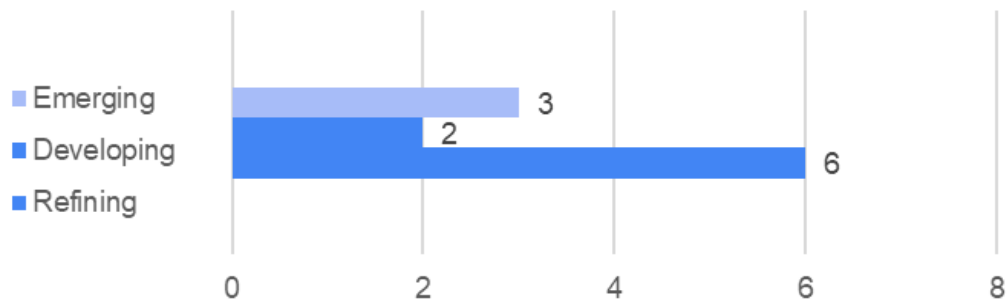
Recognize contingencies and avoid...



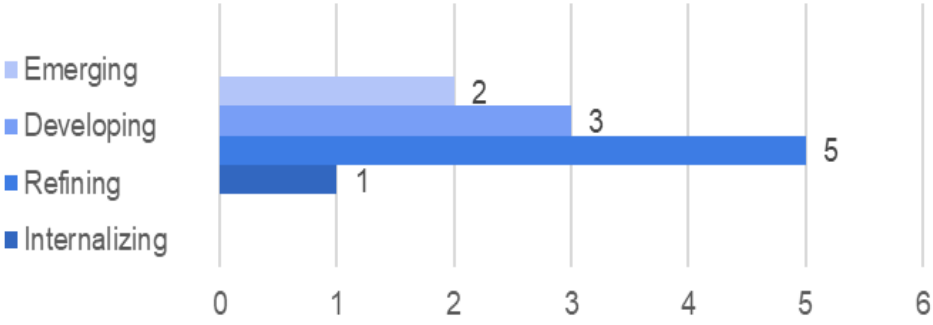
Craft historical arguments...



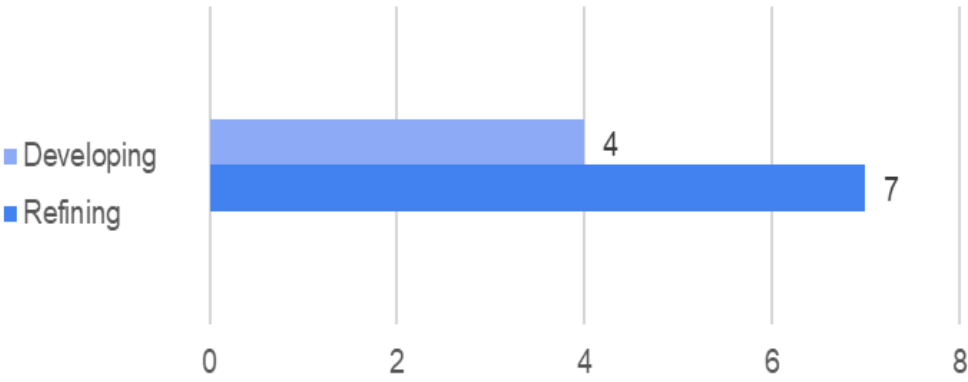
Understand competing historiographical interpretations...



Communicate historical thinking clearly and effectively...



Utilize historical analysis to inform civic learning...



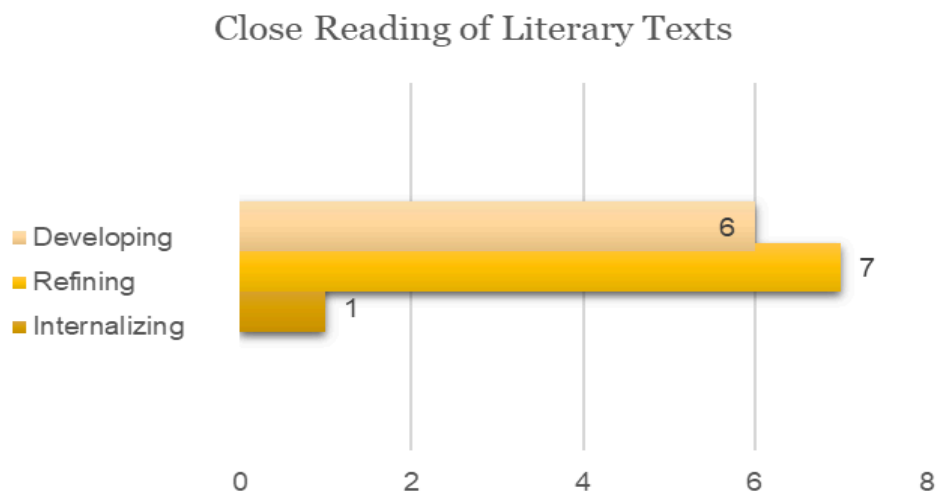
Literary Inquiry & Analysis:

	Close Reading of Literary Texts	Language & Imagery	Literary Terminology	Cultural & Historical Contexts
Mean	2.6	2.5	2.1	1.9
Sum	37	35	24	19

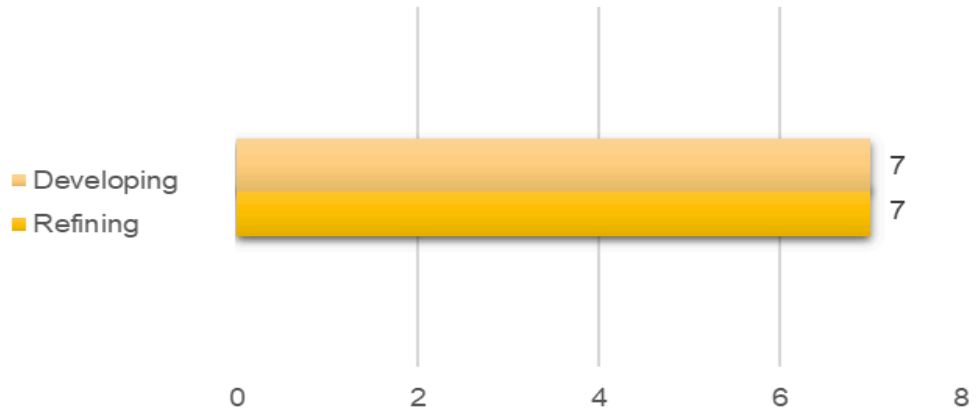
Full descriptions of rubric criteria:

- Close Reading of Literary Texts: Understand how to do close reading of literary texts, sensitive to both the denotative and connotative aspects of literary diction
- Language & Imagery: Understand the use of descriptive and figurative language, and the dimensions of functions of imagery and prosody
- Literary Terminology and Conventions: Foster familiarity with the terminology and conventions of literary analysis
- Cultural & Historical Contexts: Account for the role of context(s) in the production, reception, and transmission of literary and cultural texts (across periods, histories, geographic or national spaces and cultural differences)

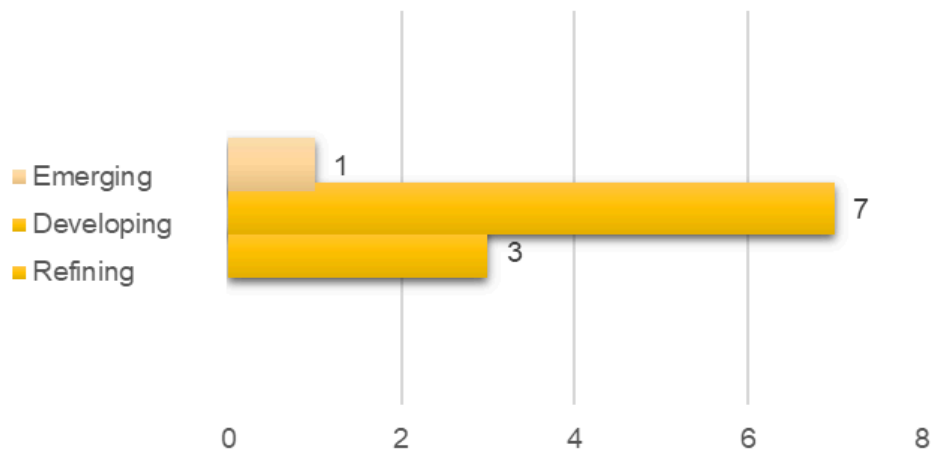
Student work fell largely in the developing, refining category. Please see the following series of charts for visuals related to the above data:



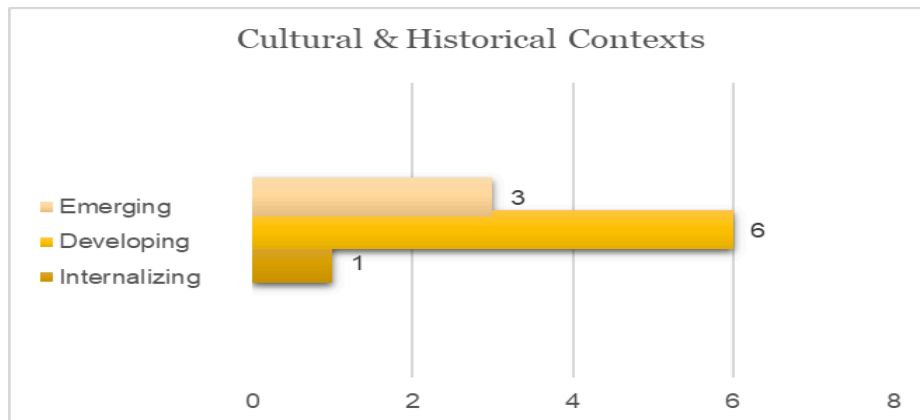
Language & Imagery



Literary Terminology & Conventions



Cultural & Historical Contexts



Scientific Inquiry & Analysis:

	Apply scientific reasoning to evaluate...	Verify data when possible...	Construct an explanation...	Conduct a scientific research project...
Mean	2	4	2.9	3.5
Sum	6	28	58	67

	Analyze data using tools...	Plan and conduct a scientific investigation ...	Apply scientific reasoning...	Evaluate the scientific evidence...
Mean	2.8	3.9	3.7	NA
Sum	55	27	26	NA

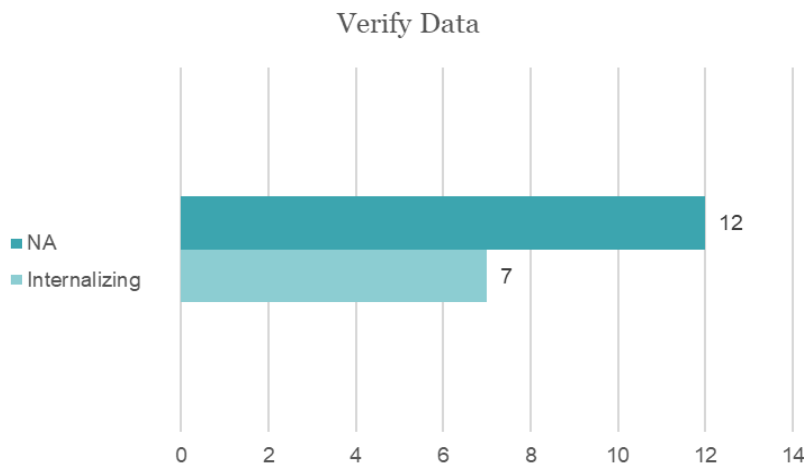
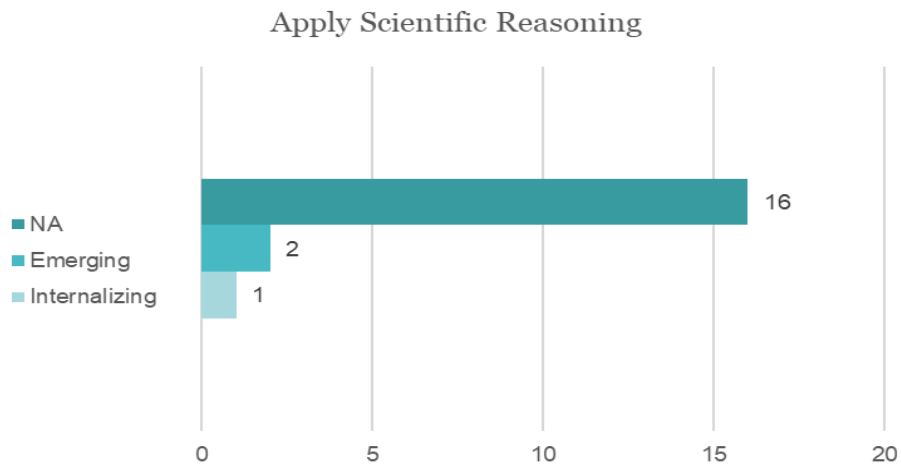
	Apply concepts of statistics and probability...	Make and defend a claim based on evidence...
Mean	NA	2.7
Sum	NA	43

Full descriptions of rubric criteria:

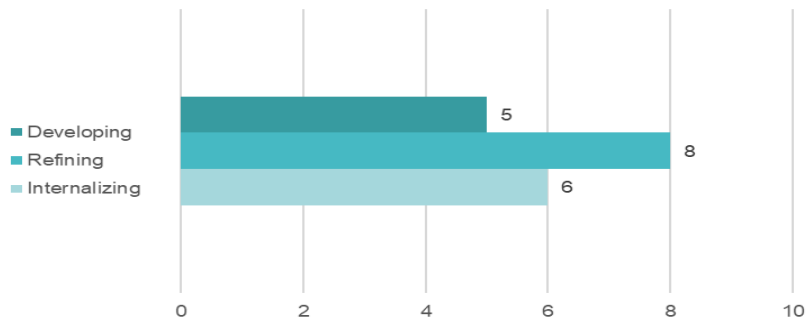
- Apply scientific reasoning to evaluate hypotheses, data, analysis, and conclusions in a science or technical text
- Verify data when possible by corroborating or challenging conclusions with other sources of information
- Construct an explanation based on valid and reliable scientific evidence obtained from a variety of sources including students' own investigations, models, theories, or simulations, or peer review
- Conduct a scientific research project to answer a question or solve a problem, narrow or broaden the inquiry when appropriate, and synthesize multiple sources on the subject, demonstrating understanding of subject under investigation
- Analyze data using tools, technologies and/or models (e.g. computational, mathematical) in order to make valid and reliable scientific claims or determine an optimal design solution
- Plan and conduct a scientific investigation individually or collaboratively to produce data that serve as the basis for evidence. In the design of the investigation, decide on types quantity, and accuracy of data needed to produce reliable measurements and consider limitations on the precision of the data (e.g. number of trials, cost, risk, time): refine the design accordingly
- Apply scientific reasoning to link evidence to the claims to assess the extent to which the reasoning and data support the explanation or conclusions

- Evaluate the scientific evidence behind currently accepted explanations or solutions to determine the merits of the arguments
- Apply concepts of statistics and probability to scientific and engineering questions and problems using digital tools when feasible
- Make and defend a claim based on evidence about the natural world that reflects scientific knowledge and student-generated evidence

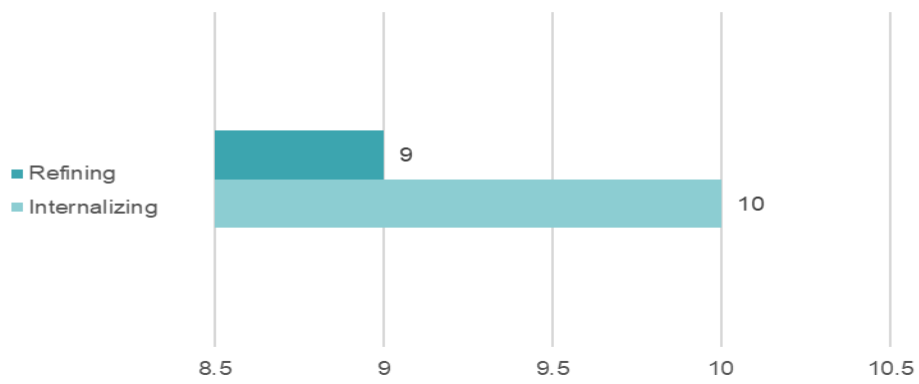
Student work fell largely in the “refining” stages as scored by the assessors. NA comprised a large portion of some of the criteria. Please see the following series of charts for visuals related to the above data:



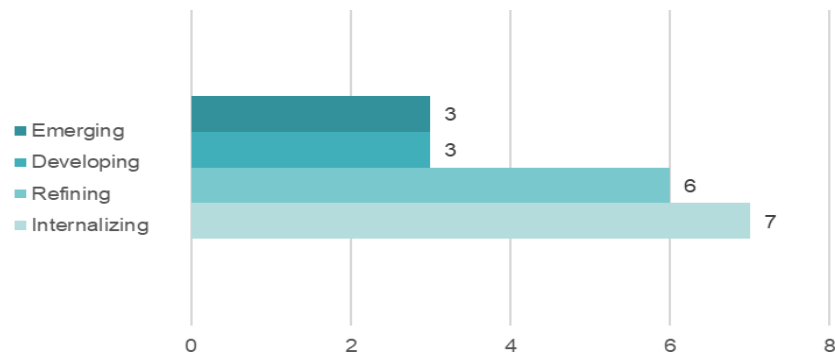
Construct an Explanation



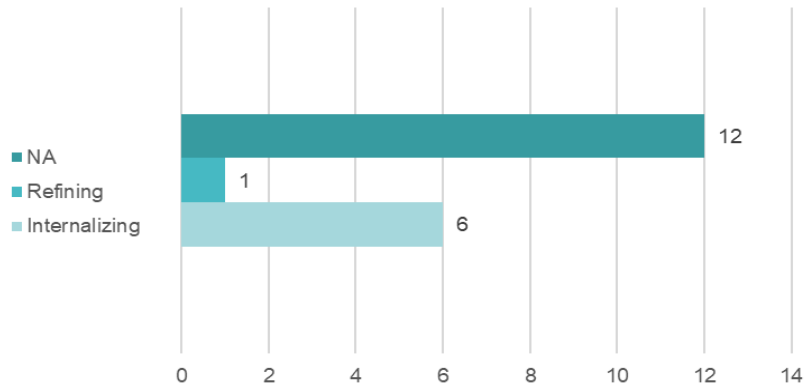
Conduct a Scientific Research Project



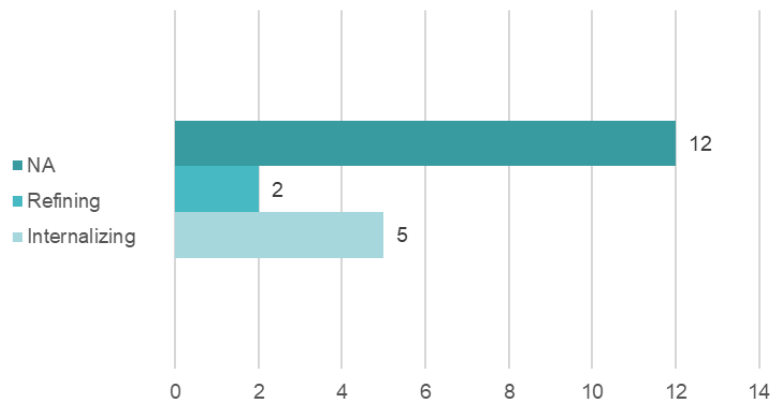
Analyze Data using Tools



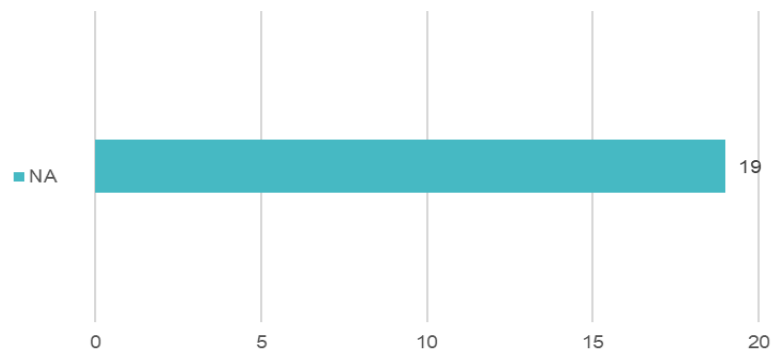
Plan & Conduct a Scientific Investigation



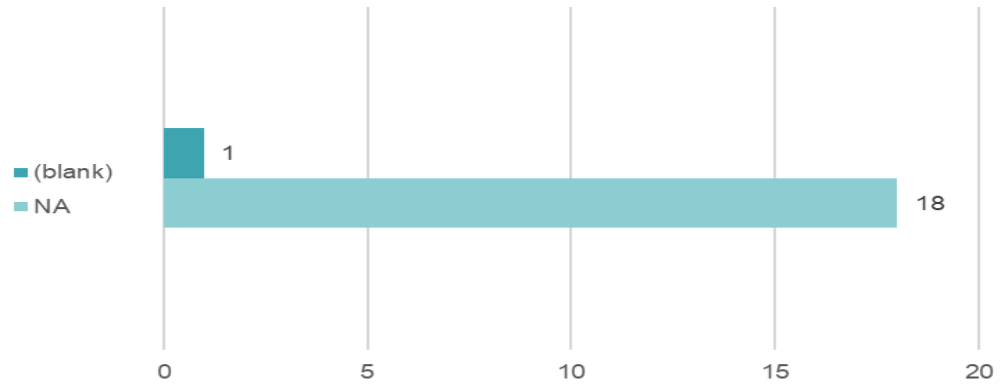
Apply Scientific Reasoning



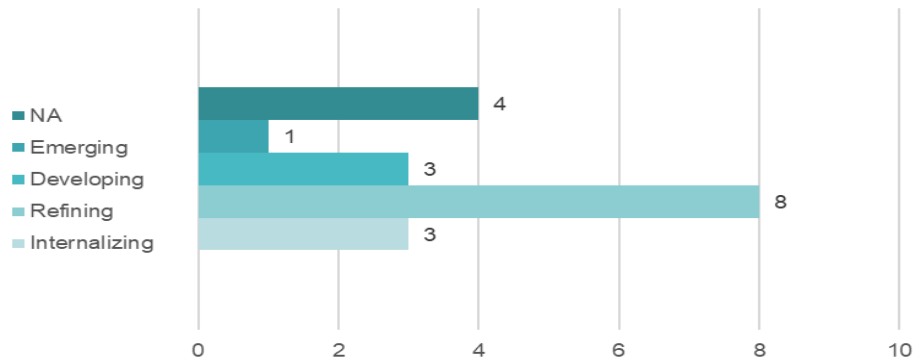
Evaluate the Scientific Evidence



Apply Concepts of Statistics & Probability



Make & Defend a Claim



Observations:

Process:

At the end of Assessment Day, the facilitators and assessors took the opportunity to debrief the assessment process through a Google form in order to evaluate its effectiveness and any suggestions for improvement. It was again acknowledged that a formal assessment tool, particularly one that allows instructors to send artifacts directly from Blackboard, would be preferable although assessors reported that Google Forms was adequate enough for our current needs.

Assessors reported that the Assessment Day format, beginning with a norming session before completing the assessment, worked well. However, it was noted that an in-person format would be more desirable and effective, rather than the virtual format that had to be adopted to accommodate assessors this year.

It was noted by one assessor that the General Education Program is rather complicated overall, which could be contributing to a lack of faculty resources to assess artifacts. Furthermore, this complication and sheer number of outcomes might indicate a preference for less complex or at least fewer criteria within rubrics used to assess the outcomes. On the other hand, it was noted that it might be useful to assess various levels of student work for each outcome (i.e. 1000-level and 4000-level) to get a broader picture of student learning, thereby potentially increasing the number (or at least the type) of artifacts needed per outcome.

Assignment Design and Learning Outcome Outreach:

Last year, assessors suggested workshops and other means of communicating the rubrics to instructors. Workshops were attempted, but were not attended. Rubrics were disseminated electronically to instructors, but there was little opportunity for discussion of assignment design or artifact selection to align with the rubrics. This no doubt impacted the outcome of the scoring, but the assessment was still carried out. The General Education Program did have and will continue to have discussions with the Provost Council, the Deans, and Chairs about possible solutions.

The table below illustrates the frequency of the scoring of N/A on an artifact. This includes scoring across all criteria for each rubric. This is also impacted by the number of artifacts assessed per rubric as some of our rubrics scored fewer artifacts due to fewer assessors.

Outcome	# N/A
<i>Fine Arts Expression & Analysis</i>	80
<i>Historical Inquiry & Analysis</i>	10
<i>Literary Inquiry & Analysis</i>	14
<i>Scientific Inquiry & Analysis</i>	93

The high frequency of N/A for Fine Arts Expression & Analysis and Scientific Inquiry & Analysis is notable and should be considered in plans for improvement of process.