



Salt Lake Community College

2022 General Education Assessment Report

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Our Key Priorities



Students tell their learning story via the ePortfolio



Map General Education designations to enhance consistency and analysis



Support faculty to develop engaging and effective signature assignments



Assess student learning

Assessment Methods

Salt Lake Community College (SLCC) has been using ePortfolios as a requirement in General Education courses for over a decade, and we have found it to be an effective tool to assess the extent to which students achieve the program's learning outcomes. The ePortfolio requirement also allows us to easily capture the students experience of General Education as a program. Each assessment examines whether the General Education program offers students sufficient opportunities to progress toward SLCC's General Education learning outcomes and whether graduating students are adequately meeting those learning outcomes.

Through 2021 and 2022, we experienced staff changeover in the ePortfolio Office and hired a new Program Manager, a new Coordinator and a new Director of Program Assessment at SLCC. Due to these changes, we had to push back the start of our assessment process as well as scale back the learning outcomes we were going to review for the year. For our 2022 assessment we revamped the process to align it with our General Education Designation mapping project. In doing so, we scaled back our usual focus of looking at most of the General Education learning outcomes and instead assessed the outcomes of Critical Thinking and Quantitative Literacy, as well as the Reflection component in the ePortfolio. We focused on these areas to better understand the role that practice with each outcomes plays on performance and to see how the artifacts and signature assignments aligned with priority learning outcomes of our mapping project. Our hope was that this focus on learning outcomes in the designation can help us identify more targeted, specific opportunities to support General Education faculty and students with the application of the signature assignment and reflection in the ePortfolio.

The assessment parameters for 2022 were as follows: the students must have graduated from SLCC in May 2021 with either an Associates of Arts (A.A.), Associates of Science (A.S.), or Associates of Applied Science (A.A.S.). In addition, the entirety of their General Education coursework must have been completed at SLCC. We pulled a random sample of 150 students (75 female and 75 male) who fit these parameters and who had submitted an ePortfolio link to our Banner system. From this sample of 126 students had an ePortfolio we could review.

We used a holistic rubric to complete this assessment. This rubric is a combination of SLCC- specific internal measures, VALUE rubrics developed by the American Association of Colleges and Universities (AAC&U), and AAC&U VALUE rubrics modified for our circumstances at SLCC. Reviewers included seven full-time faculty, one adjunct instructor, and two staff. Reviewers were put in pairs and divided the sample in half. Each reviewer identified the strongest artifact for each student that addresses the sub-outcome. They also counted the number of artifacts in each ePortfolio that address the sub-outcome they focused on. This provided us with a measure of the amount of work students are doing that pertains to each sub-outcome. We then compiled an average number of artifacts per sub-outcome across 126 ePortfolios.

Lastly, reviewers scored artifacts on a scale of 1-4 (1 being weakest, 4 being strongest) for what they identified as the strongest artifact in their half of the sample. When they completed their half of the sample, they swapped with their partner and reviewed the second half of the sample. When reviewer scores differed the assessment spreadsheet automatically recorded the average their scores.

Quantitative Literacy

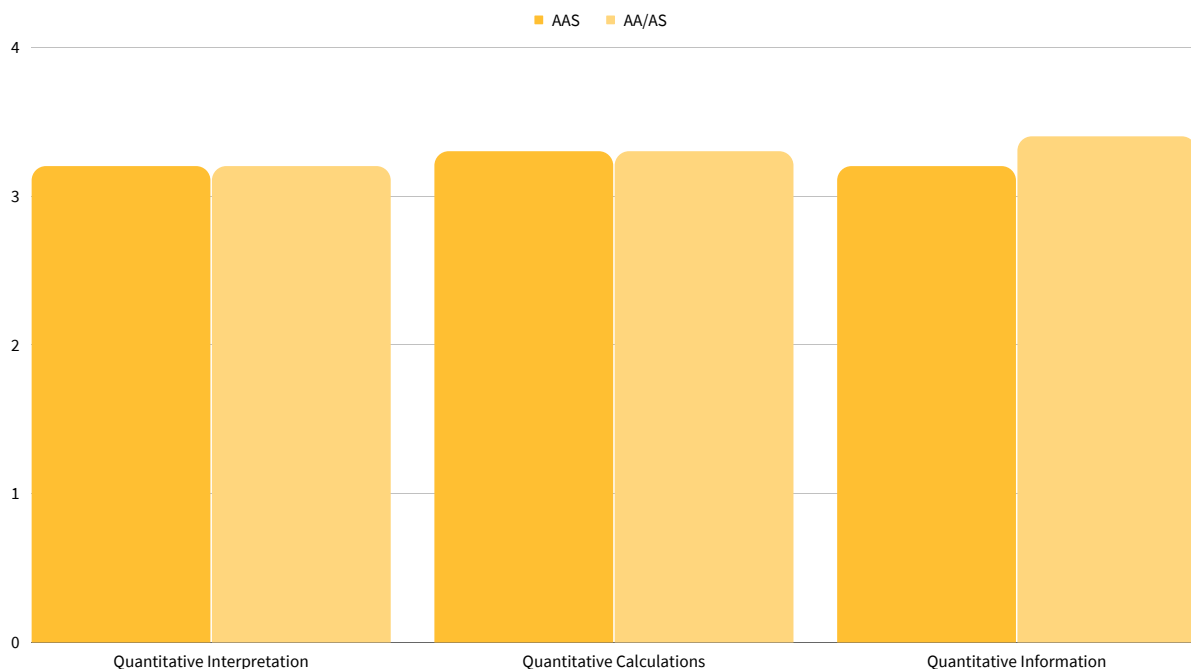
Students develop quantitative literacies necessary for their chosen field of study. This includes approaching practical problems by choosing and applying appropriate mathematical techniques; using information represented as data, graphs, tables, and schematics in a variety of disciplines; applying mathematical theory, concepts, and methods of inquiry appropriate to program-specific problems.

Sub-outcomes :

- Students accurately explain and interpret mathematical processes.
- Students successfully perform attempted calculations.
- Students effectively use quantitative information in connection with the argument or purpose of their work.

Table A.1 indicates the average rating for the sub-outcomes of Quantitative Literacy across degree types. Artifacts demonstrating quantitative interpretation scored an average of 3.2. Artifacts demonstrating quantitative calculations scored an average of 3.3, and artifacts demonstrating quantitative information scored a difference of 3.2 for AAS degree and 3.4 for AA/AS degrees.

Table A.1 Average Rating

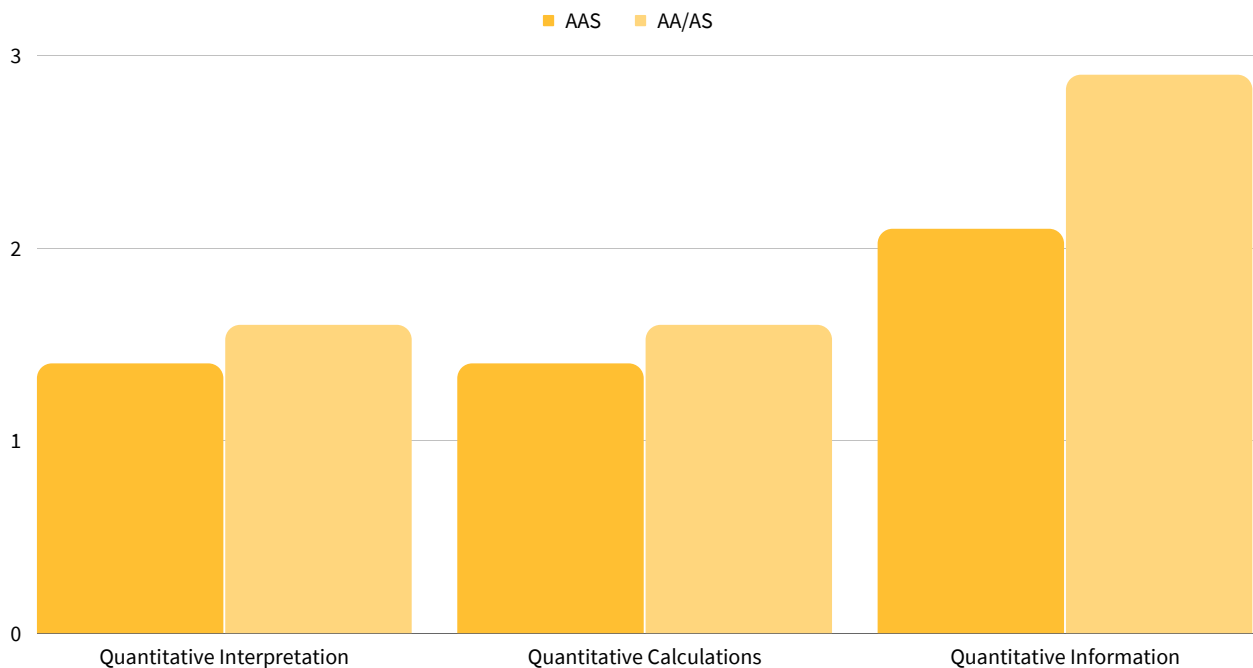


The data shows a strong assessment result for those artifacts that were reviewed across all three sub-outcomes of Quantitative Literacy. No sub-outcome received a score below 3.0

Quantitative Literacy

Table A.2 indicates the average number of artifacts that address the three sub-outcomes of Quantitative Literacy. The number of artifacts for both quantitative interpretation and quantitative calculations scored an average of 1.4 for AAS degrees and 1.6 for AA/AS degrees. The number of artifacts demonstrating quantitative information indicated the greatest difference, with an average of 2.1 artifacts for AAS degrees and 2.9 for AA/AS degrees.

Table A.2 Average Number of Artifacts

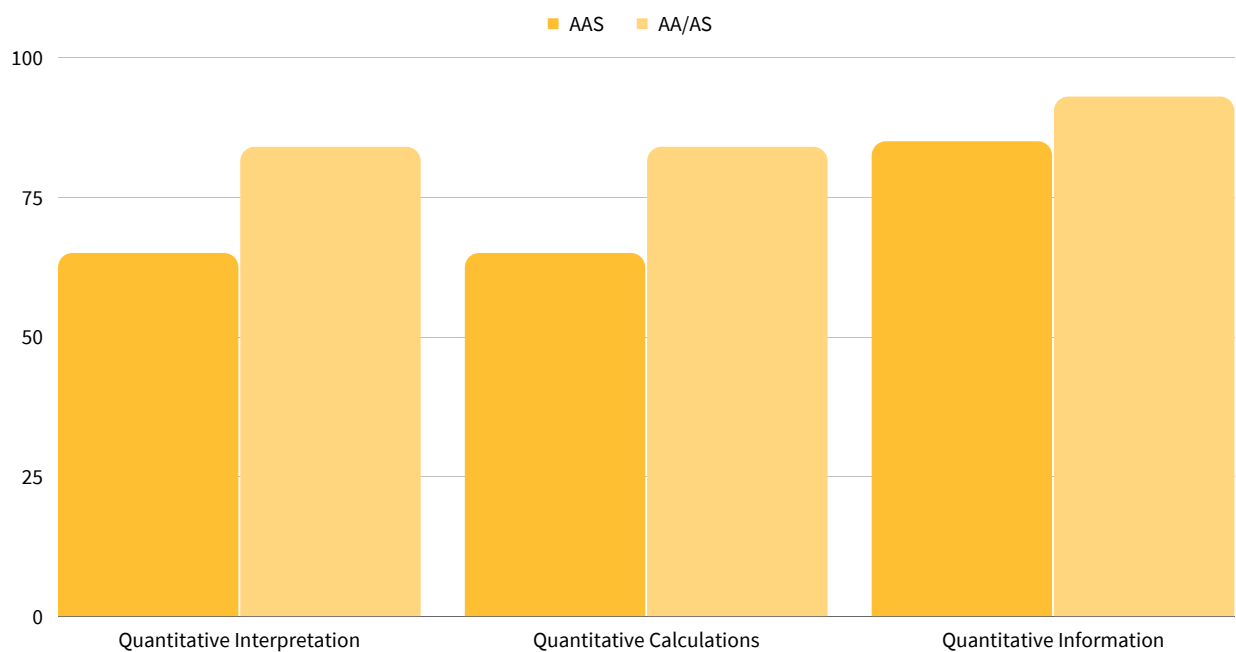


The data shows a low number of artifacts across all degree types for the quantitative literacy sub-outcomes, with an average rating below 3.0. Faculty teaching courses in General Education designations that have mapped their signature assignments to Quantitative Literacy should ensure that students are demonstrating the quantitative interpretation and calculation sub-outcomes in their ePortfolios.

Quantitative Literacy

Table A.3 indicates the percentage of ePortfolios with artifacts for the three sub-outcomes of Quantitative Literacy by degree type. Artifacts for quantitative interpretation and quantitative calculations were observed in 65% of ePortfolios for AAS degrees and in 84% for AA/AS degrees. Artifacts for quantitative information were found in 85% of AAS degrees and 93% of AA/AS degrees.

Table A.3 Percent of ePortfolios with Artifacts



The percent of ePortfolios with artifacts for Quantitative Literacy reflects the ePortfolio requirement for General Education in both the AAS and AA degrees. The 65% of quantitative interpretation and quantitative calculations in AAS degrees could improve, but it does correlate with the QL/QS program requirements for AAS degrees. We also see a similar correlation of the QL/QS general education requirement the for AA/AS.

Critical Thinking

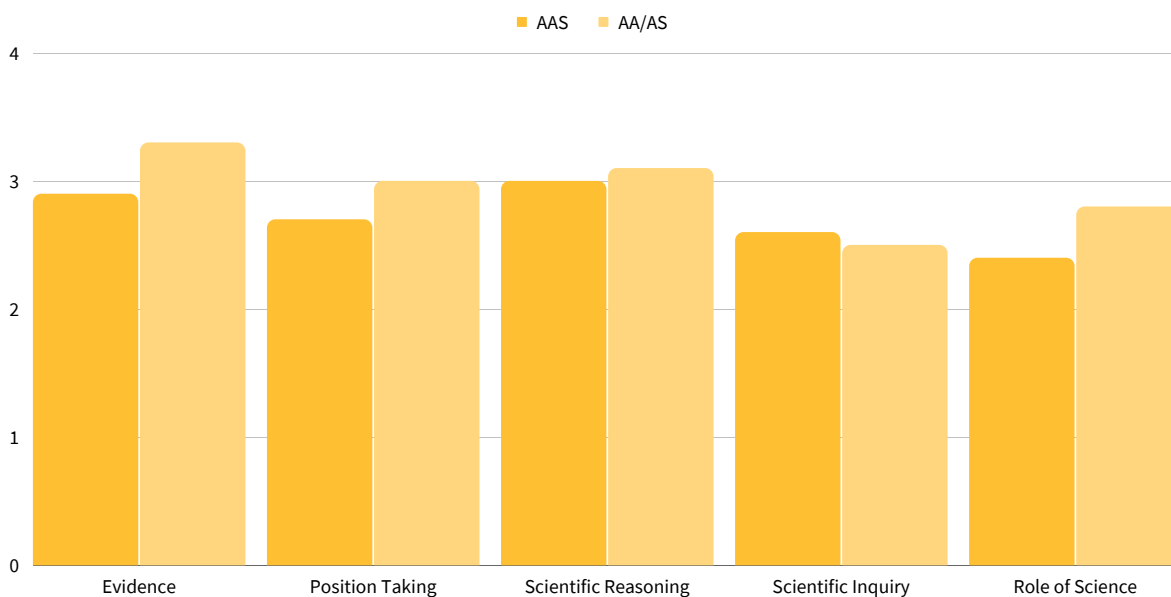
Students think critically. This includes reasoning effectively from available evidence; demonstrating effective problem solving; engaging in reflective thinking and expression; demonstrating higher-order skills such as analysis, synthesis, and evaluation; making connections across disciplines; applying scientific methods to the inquiry process.

Sub-outcomes:

- Students employ evidentiary sources with enough interpretation/evaluation to develop a comprehensive analysis, argument, or synthesis.
- Students take imaginative positions (perspective, thesis/hypothesis), taking into account the complexities of an issue.
- Students demonstrate scientific reasoning processes to draw conclusions.
- Students demonstrate the application of specialized methods and tools of scientific inquiry by actively and directly collecting, analyzing, and interpreting data, presenting findings, and/or using information to answer questions.
- Students understand the role science plays in historical and contemporary issues.

Table B.1 indicates the average rating for the five sub-outcomes of Critical Thinking. Artifacts demonstrating evidence scored 2.9 for AAS degrees and 3.3 for AA/AS degrees. Artifacts demonstrating position taking scored 2.7 for AAS degrees and 3.0 for AA/AS degrees. Scientific Reasoning scored 3.0 for AAS degrees and 3.1 for AA/AS degrees. Scientific Inquiry received the lowest score with 2.6 for AAS and 2.5 for AA/As degrees. Finally, the role of science received an average score of 2.4 for AAS and 2.8 for AA/AS degrees. The average rating for Critical Thinking is fairly consistent between 2.5 and 3.0 for all of the sub-outcomes. Signature assignments should be improved to address Critical Thinking in both scientific inquiry and the role of science.

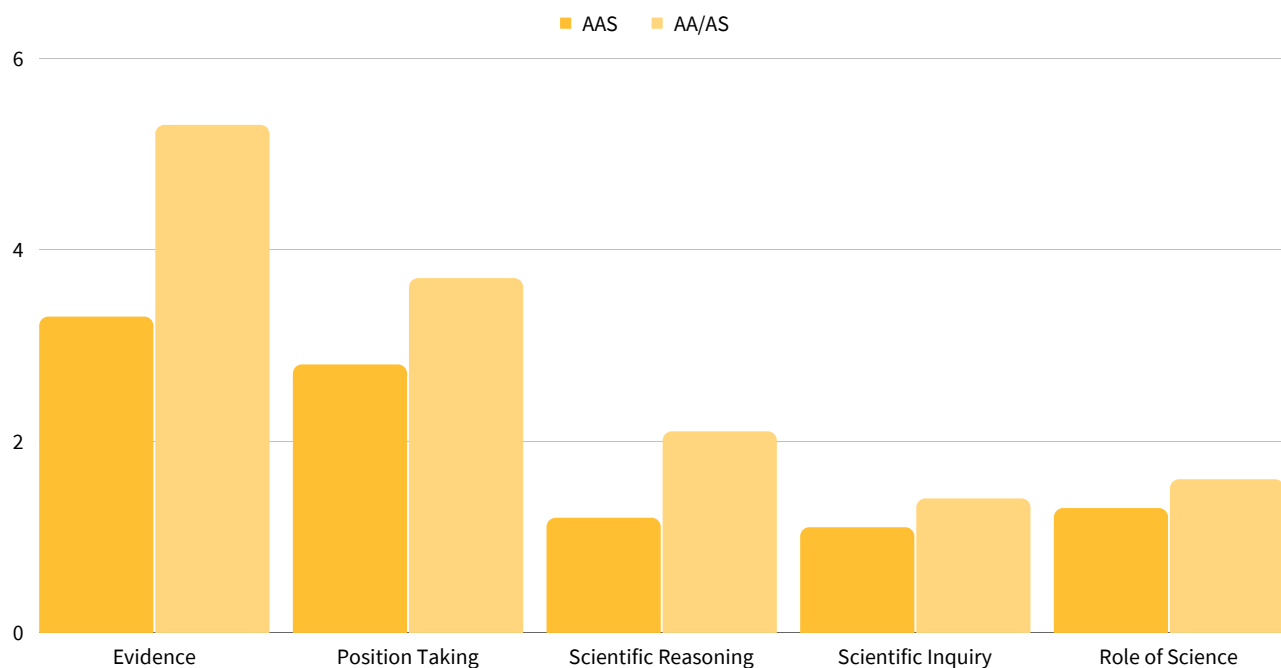
Table B.1 Average Rating



Critical Thinking

Table B.2 indicates the average number of artifacts for the five sub-outcomes of Critical Thinking. The average number of artifacts demonstrating evidence was 3.3 for AAS degrees and 5.3 for AA/AS degrees. The average number of artifacts was 2.8 for AAS degrees and 3.7 for AA/AS degrees. Scientific reasoning had average of 1.1 artifacts for AAS degrees and 2.1 for AA/AS degrees. Scientific inquiry had the lowest average number of artifacts with 1.1 for AAS and 1.4 for AA/AS degrees. Finally, with respect to demonstrating the role of science, the ePortfolios in the sample had an average of 1.3 artifacts for AAS and 1.6 for AA/AS degrees.

Table B.2 Average Number of Artifacts

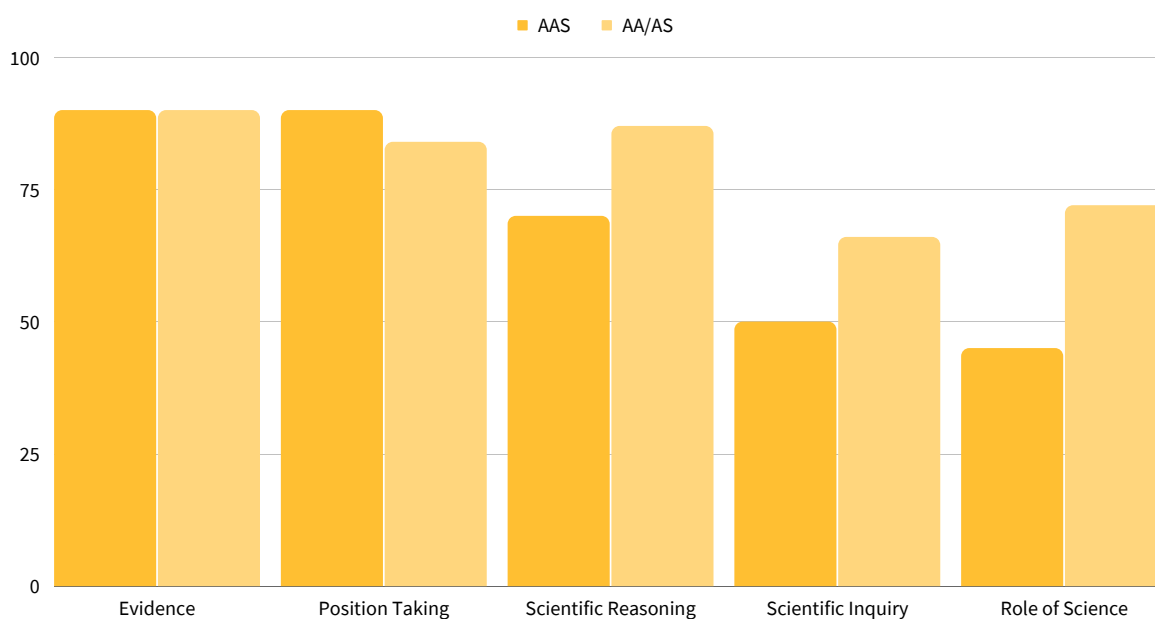


The data shows a consistent difference in the average number of artifacts between AAS and AA/AS degrees. While the average number of artifacts is somewhat strong for evidence of critical thinking and position taking, we see very few artifacts in our sample for the scientific reasoning, inquiry, and the role of science. This difference is expected because more courses focus on evidence and position taking for critical thinking and therefore these sub-outcomes are more widely addressed for students.

Critical Thinking

Table B.3 indicates the percent of ePortfolios with artifacts for the five sub-outcomes of Critical Thinking for AAS and AA/AS degrees. Evidence of Critical Thinking was found in 90% of ePortfolios across all degree types. Artifacts demonstrating position taking were found in 90% of ePortfolios for AAS degrees and 84% of ePortfolios for AA/AS degrees. Artifacts for scientific reasoning were found in 70% of ePortfolios for AAS and 80% of ePortfolios for AA/AS degrees. The percentage of artifacts for scientific inquiry was only 50% of ePortfolios for AAS degrees and 66% of ePortfolios for AA/AS degrees. Lastly, the number of artifacts demonstrating the role of science was the lowest at 45% of ePortfolios for AAS degrees and 72% of ePortfolios for AA/AS degrees.

Table B.3 Percent of ePortfolios with Artifacts



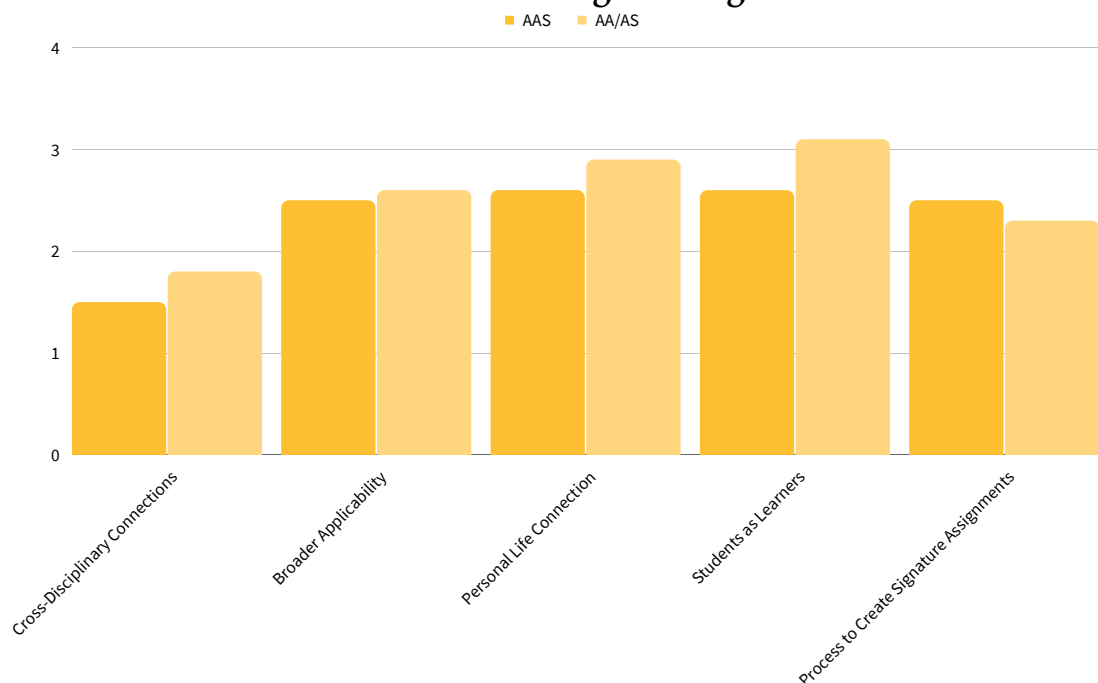
The percentage of ePortfolios with artifacts of Critical Thinking is strong. Again we would expect to see a high percentage of ePortfolios with artifacts in sub-outcomes for evidence, position taking, and scientific reasoning because they are the most represented Critical Thinking components in our General Education sample of courses at SLCC. The 55%-to-75% range of scientific inquiry and the role of science reflects course requirements containing these sub-outcomes within the AAS and AA/AS degrees.

Reflection

All SLCC General Education courses are required to have a reflection component that allows students to both reflect on their learning and make connections. Reviewers for reflection in this assessment looked for and scored five areas in the ePortfolios where students can reflect deeply on: *Disciplinary and/or content connections between one course and other courses or other academic knowledge. Links between coursework and its broader applicability outside of school. Connections between coursework and their personal lives. Themselves as learners and how they are improving over time. Processes they went through to create their signature assignment.*

Table C.1 indicates the average rating for the five areas of the reflection requirement for ePortfolio. Reflections on cross-disciplinary connections averaged 1.5 for AAS and 1.8 for AA/AS degrees. The average for reflections on broader applicability was 2.5 for AAS and 2.6 for AA/AS degrees. Reflections making personal life connections was a 2.6 average for AAS and 2.9 for AA/AS degrees. The average for students reflecting on themselves as learners was 2.6 for AAS and 3.1 for AA/AS degrees. Lastly, the average for reflections addressing the processes students created to complete their signature assignment was 2.5 for AAS and 2.3 for AA/AS degrees.

Table C.1 Average Rating

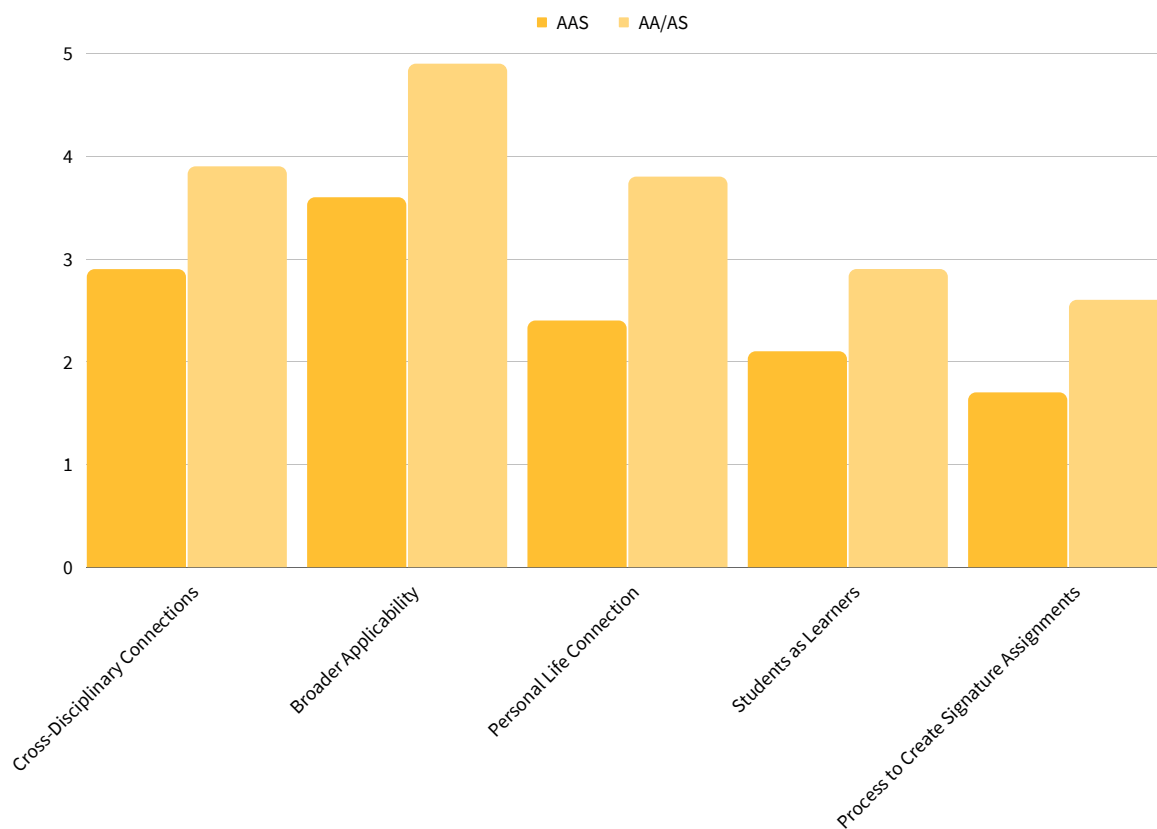


Faculty should strive to help students make stronger cross-disciplinary connections in their reflections. These areas could be improved with stronger signature assignments and reflection prompts that explicitly ask students to make connections from one General Education course to others.

Reflection

Table C.2 indicates the average number of artifacts for each of the five areas of Reflection reviewers disaggregated by degree type. The average number of artifacts demonstrating cross-disciplinary connections was 2.9 for AAS and 3.9 for AA/AS degrees. The number of artifacts showing broader applicability was 3.6 for AAS and 4.9 for AA/AS degrees. The average number of artifacts making personal life connections was 2.4 for AAS and 3.8 for AA/AS degrees. The average number of artifacts where students reflected on themselves as learners was 2.1 for AAS and 2.9 for AA/AS degrees. Lastly, the average number of artifacts that addressed the processes students created to complete their signature assignment was 1.7 for AAS and 2.6 for AA/AS degrees.

Table C.2 Average Number of Artifacts



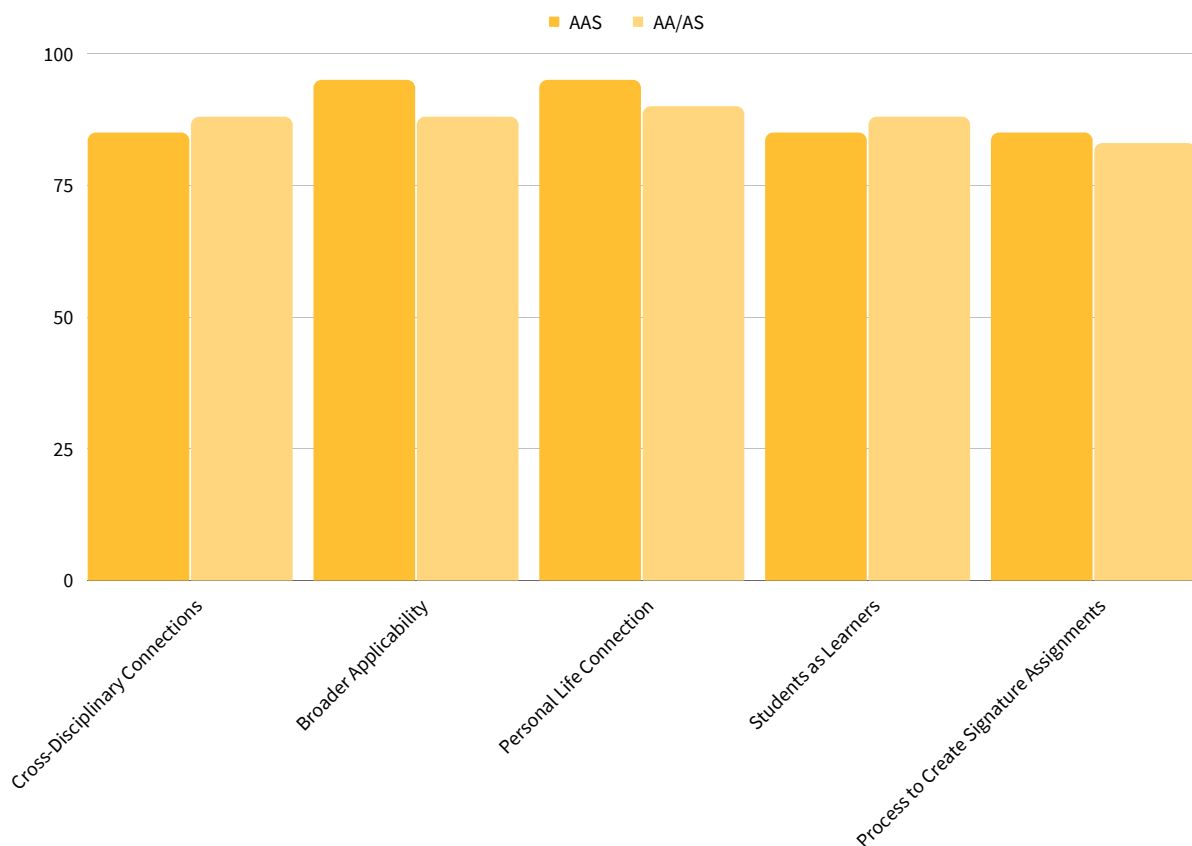
We see a larger average number of artifacts for reflections on cross-disciplinary connections and broader applicability. We also see a lower numbers for making personal life connections, students as learners, and processes to create signature assignments. In comparing table C.1 and C.2 , we see that the number of artifacts for a sub-come do not result in the strength of those artifacts. We can strengthen student performance on reflection - which we see as a form of critical thinking- by making sure that signature assignments prompts are thoroughly reviewed during the curriculum process and conducting course-specific workshops with faculty.

Reflection

Table C.3 indicates the percent of ePortfolios with artifacts for the five areas of reflection in AAS and AA/AS degrees. Reviewers found reflections with cross-disciplinary connections in 85% of the ePortfolios for AAS graduates and 88% of ePortfolios for AA/AS graduates.

Reflections demonstrating broader applicability were found in 95% of ePortfolios for AAS graduates and 88% ePortfolios for AA/AS graduates. Reflections making personal life connections were found in 95% of ePortfolios for AAS graduates and 90% of AA/AS graduates. Reflections on the students as learners were found in 85% ePortfolios for AAS graduates and 88% of ePortfolios for AA/AS graduates. Lastly, reflections in which students described the process to create their signature assignment were found in 85% of ePortfolios for AAS graduates and 83% of ePortfolios for AA/AS graduates.

Table C.3 Percent of ePortfolios with Artifacts



We see from our sample that the vast majority of courses are meeting the requirement of having a signature assignment and reflection published in the ePortfolio. Our focus should be on ensuring signature assignments and reflection prompts address the General Education learning outcomes while simultaneously promoting that student learning takes place through reflection as a main feature of General Education at SLCC.

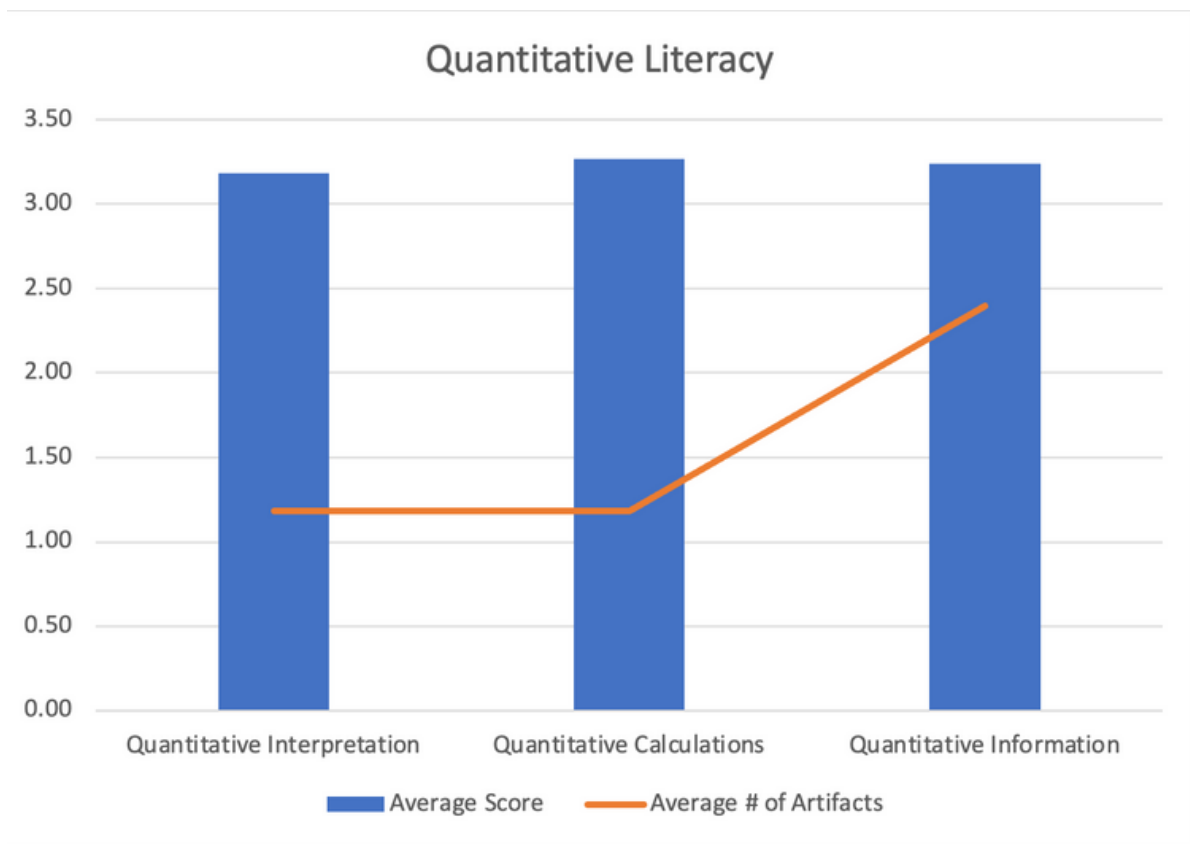
Combined Degree Types

The following graphs illustrate the average score and average number of artifacts for Quantitative Literacy, Critical Thinking, and Reflection outcomes across the AA, AS, and AAS degrees.

Quantitative Literacy

Figure D.1 indicates an average score of 3.25 for the strength of the artifacts from all three sub-outcomes of Quantitative Literacy. However, the average number of artifacts is only 1.25 for quantitative interpretation and calculations, and nearly 2.5 for quantitative information.

Figure D.1



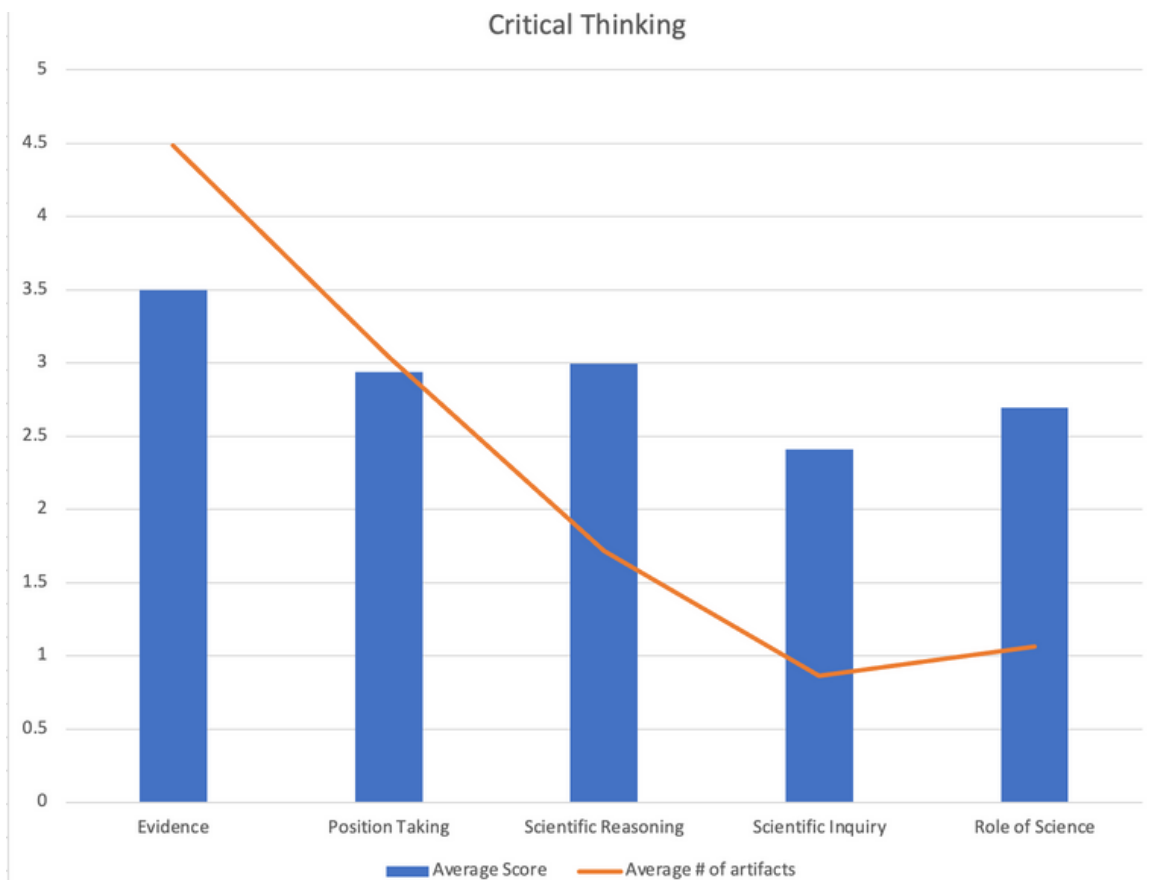
SLCC graduates score well on all three aspects of Quantitative Literacy. We would like to see the average number of artifacts increase for the sub-outcomes quantitative interpretation and quantitative calculations.

Combined Degree Types

Critical Thinking

Figure D.2 indicates an average score of 3.5 for the sub-outcome of evidence of critical thinking and a score of 3 for both position taking and scientific reasoning. The Role of science scored an average of 2.7 and scientific inquiry at 2.4. The average number of artifacts has a high of 4.5 for evidence of critical thinking but decreases significantly for all remaining sub-outcomes with the lowest at only 0.8 for scientific inquiry, and a 1 for role of science.

Figure D.2
Critical Thinking

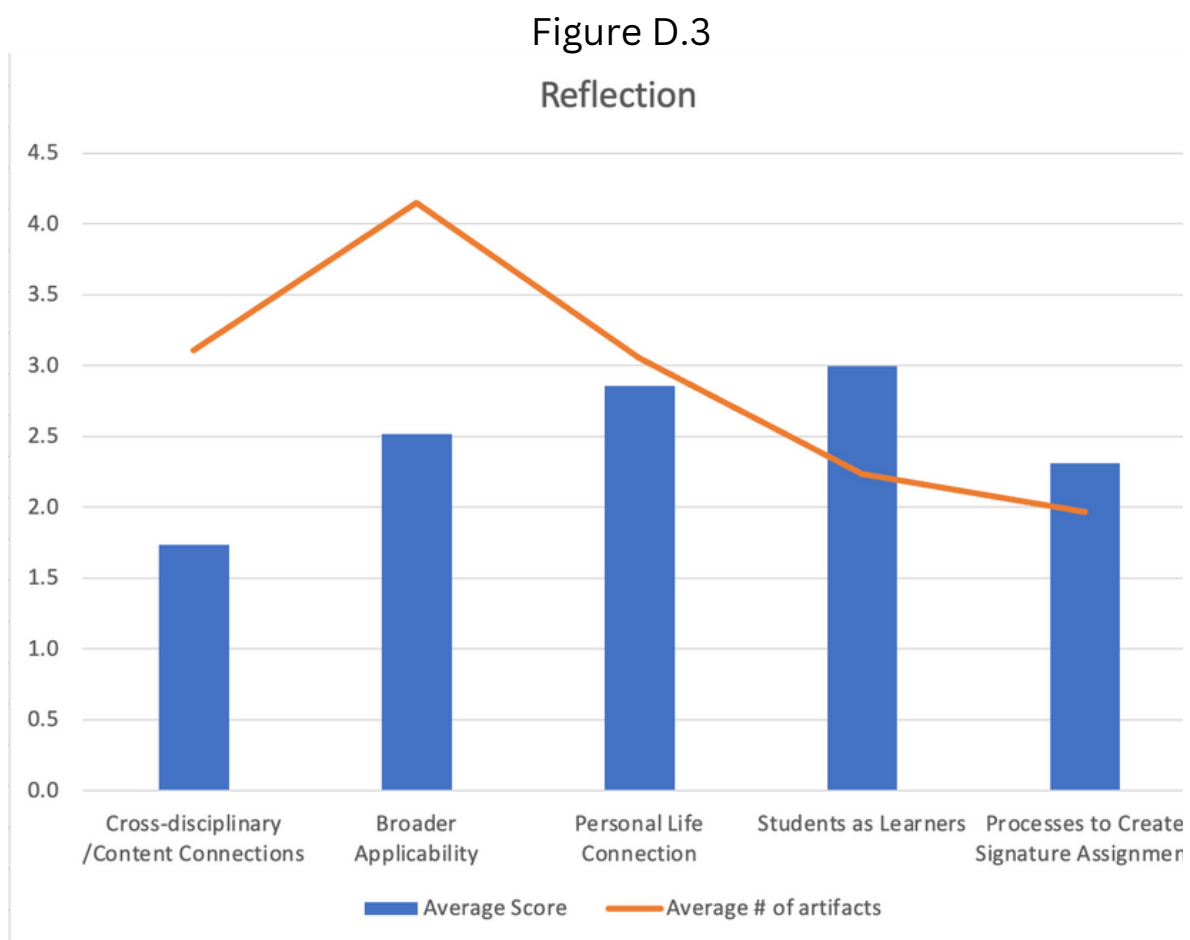


SLCC's graduates score well on Critical Thinking. This data indicates improvement is strongly needed for increasing the number of artifacts across all degrees for the Critical Thinking sub-outcomes of scientific reasoning, scientific inquiry and the role of science students are putting in their ePortfolios.

Combined Degree Types

Reflection

Figure D.3 indicates the strongest area of reflection across degree types is students as learners with an average score of 3.0 and the number of artifacts at 2.1. Cross disciplinary/content connections is the weakest area of reflection with an average score slightly above 1.5, with an average number of artifacts at 3.0. We see a similar contradiction with reflections on the broader applicability sub-outcomes having a score of 2.5 with the highest number of artifacts at 4.1.



Reflective pedagogy is well-developed in SLCC's General Education program, and our graduates engage in considerable reflection. Improvement is needed for strengthening the cross disciplinary/content connections and broader applicability that students make in their reflections for General Education courses. There also needs to be a significant increase in the number of artifacts focusing on the process to create signature assignments across all degrees.

Reviewer Feedback

Each year we ask those who have participated in the General Education ePortfolio Assessment to reflect on their experience. Below are some of the insights and observations from this year's assessors about how they felt the overall assessment process and timeline went, what they learned, and the use of ePortfolio and Signature Assignments in General Education courses. The additional feedback and recommendations will be used to improve assessment of General Education at SLCC. Most of the feedback centered on an improved knowledge of how the ePortfolio is used to assess General Education. The most common recommendation centered on the timeline of starting this year's assessment and implementing a process of norming for accurate rating next year.

Overall Assessment Process

"This process was very time consuming ...I also was only able to do 6-12 at a time because many of the classes were the exact same and my brain would start mixing up the assignments and how I felt about the criteria that was being met."

"I felt that rubric gave a lot of room for suggestive thought. Instead of scoring for the objective. Last year, I was able to score based upon the objective and not the subjective."

"The hardest part was being so time consuming and readying so many assessments. I wish there was a way to break down the section better so, we weren't scoring 3 sections with 126 assessments total."

"...it was more difficult to review the same artifact from three different perspectives each time. It was generally the one artifact coming up again and again. "

"...there was some difficulty distinguishing between scientific reasoning and scientific inquiry."

..."With proper norming, if reviewers came together and normed on several standard types of signature assignments – did some streamlining and rated multiple rubrics. Norming could help us."

..."maybe if we had an additional meeting – the kick off and a smaller assignment to do – maybe 20 evaluations – and then meet as a group and discuss the norming process and the rubrics."

"To better prepare for next year I believe we should work on the rubric to better measure what we are asking of students. Specifically, what are the big differences between the scores of 4,3,2 and 1 that we use when assessing signature projects. "

Reviewer Feedback

What They Learned

"Overall, I felt that this was still a good assessment and very valuable. I was able to learn a lot about the students and gen ed courses which will help me continue to develop my courses."

"It took longer than expected but was a good exercise. Understand better what ePortfolio is and got to see a lot of assignments outside of math."

"I found this process to be beneficial because it allowed me to see another perspective of the ePortfolio process, what students take away from QL/QS classes and what they take away from other courses in the general education. I have already felt the general education courses were important, so this did not change that perspective, but rather confirm it"

"I walked away with a better sense of how ePortfolios and signature projects can be assessed. I would like to share this information with my department to help work on and modify signature projects to better show how we meet the standards and goals of the QL/QS designation. "

Use of ePortfolio and Signature Assignments

"A lot of proposals don't include the assignment, they just say what they are doing. We need to ask more poignant questions in Gen Ed."

"Very few of our students are actively collecting and analyzing data - within a rubric there are two very different levels of evaluation."

"...as reading through connections - noticed that there were a lot of students still learning and doing this work at an early stage in their program."

"Sometimes students were narrating the work of others rather than reflecting on themselves. Often it was a paraphrase of others."

"...some of the issues with disciplines - LW - hard to find artifacts that had any mention of The Role of Science in Historical and Contemporary Issues."

"A lot of students were relating what they were learning in class to how they will do it in lives - more like contemporary issues - used a looser definition of the outcome."