

Annual Assessment 2019-2020

The purpose of SAC-level assessment at PCC is to identify the levels of student achievement of course- or program-level outcomes in the name of improving those levels of achievement. The second part of that process is the reassessment of an outcome that has been assessed in a previous year.

In an initial assessment of an outcome, a SAC should identify any areas of student achievement of an outcome that could be improved. The SAC should then target those areas with a teaching strategy appropriate to its discipline during the reassessment year. The reassessment of the outcome then determines if the strategy was effective by measuring any changes to student achievement.

This process, of assessing, analyzing, creating a teaching strategy, and reassessing, is called "closing the loop." It is how assessment can be useful for instructors and, by extension, for students.

On completing the form, please e-mail it to learningassessment@pcc.edu.

Note that questions marked with an asterisk* indicate that the accompanying help document includes information relevant to that question.

The planning section that follows is to be completed and submitted Fall Term. If your SAC is unable to complete it in fall, please fill out the planning section when completing the final report in spring.*

Planning Section: To be completed and submitted in Fall Term

SAC Assessment Contact:

<i>Name</i>	<i>e-mail</i>
Taryn Oakley	taryn.oakley@pcc.edu

1. What SAC do you represent?

Environmental Studies (ESR)

2. What outcome(s) do you plan to assess?

Quantitative Reasoning

3. What course(s) will your assessment focus on?

Both ESR 172 sections taught during the Winter 2020 term.

4a. How will you sample student work?*

Assuming a population size of 50, we will sample 29 student assignments to score.

4b. Will the student work be part of the regular graded assignments for the course(s)?*

Yes.

5. How will you redact student work (i.e. make it anonymous)?*

Student work will be submitted via D2L. Names will be redacted from the assignments which will be given an identifying number. A random number generator will be used to select 29 student assignments based on ID number.

6. Will your project be a direct or indirect assessment of student work? (Include an explanation if relevant.)*

Direct assessment.

7. In what term(s) will you collect student work?

Winter term 2020.

8. Briefly describe the purpose or goal of this project. In other words, what are you hoping to learn?

We would like to refine our ESR 172 signature assignment for Quantitative Reasoning.

9. In general terms, describe the assessment project for the year. What steps will you take in carrying out the project?*

We will be using our piloted signature assignment for ESR 172. It is a quantitative reasoning assignment that asks the student to read some background information on eutrophication and provides real-world data for the students to examine. Students are asked to graph and interpret the given data. This assignment will be given as a class assignment and will be submitted via D2L.

10a. What are the benchmarks (minimum acceptable level of student outcome achievement)?*

We are using the newly developed Quantitative Reasoning rubric v2.5 and the benchmark is a score of 2 or higher on each dimension of the rubric.

10b. What percentage or frequency of students do you hope to see achieve the benchmarks?*

We hope that at least 80% of the students achieve this benchmark.

11. Describe the tools (e.g. rubrics, checklists, standardized exams) you will use in the project to evaluate student work.

We will use the Quantitative Reasoning rubric v.2.5 developed by the Science, Computer Science, and Math DSAC.

12. Describe how the SAC will ensure that the evaluation of student work is consistent (e.g. norming rubrics, verifying inter-rater reliability.)*

We will score the student work during our spring SAC meeting. Many of the questions have right or wrong answers. For the questions that involve interpretation, we will have norming session and come to consensus before scoring.

13. If the results of the project indicate a need for additional instruction on the outcome in the future (i.e. during the reassessment year), what are possible steps the SAC might take to help students improve outcome achievement?*

We are piloting our signature assignment for ESR 172 this year. We anticipate that the outcome of this assessment project will generate suggestions for assignment revision and potentially changes to in-class instructions. We will use this assessment process to improve the assignment and re-assess the modified assignment next year.

14. Different SACs and individuals have different training in assessment. Your LAC coach is available to help with any step. What might you need help with moving forward?

STOP This concludes the planning portion of the form.

Please save this document and submit it to learningassessment@pcc.edu by December 2, 2019.

In the spring, complete the reporting section that continues on the next page.

Annual Assessment Report 2019-2020

The purpose of SAC-level assessment at PCC is to identify the levels of student achievement of course- or program-level outcomes in the name of improving those levels of achievement. The first part of that process is the initial assessment of an outcome.

If this is a reassessment of an outcome that your SAC assessed previously, please use the Annual Reassessment Report instead.

On completing the form, please e-mail it to learningassessment@pcc.edu.

Note that questions marked with an asterisk* indicate that the accompanying help document includes information relevant to that question.

If your SAC was unable to complete the planning section, above, during Fall Term, please fill that section out before completing the following end-of-year report.

15. Were any changes made to the assessment plan submitted in Fall Term? If so, please briefly describe them.

The only change was that only one section of ESR 172 was taught, so we assessed all artifacts instead of a subsample.

16. Please provide an executive summary of your results; include only key data points and your overall findings regarding student learning.

The only dimension where our benchmark was met (80% or more of students receiving a 2 or greater) was for dimension 2. In all dimensions that did not meet the benchmark, there were students who did not complete the questions for that dimension, resulting in a mark of 0. In all of those dimensions except dimension 5, removing those zeros would bring the percentage of students meeting the benchmark to above 80%. Dimension 5 has the lowest percentage of students meeting the benchmark, with many of the students receiving a score of 1.

17a. What were the benchmarks levels (minimum acceptable level of student achievement of the outcome) for the project?*

The benchmark that we were aiming for was a score of 2 or higher for each portion of the rubric. We wanted at least 80% of students to achieve that benchmark.

17b. What percentage or frequency of students achieved the benchmark levels?*

Overall, 95% of students achieved at or above the benchmark in at least one dimension. When split by dimension we see:

Dimension 1: 76% of students

Dimension 2: 81% of students

Dimension 3: 71% of students

Dimension 4: 76% of students

Dimension 5: 62% of students

Dimension 6: 76% of students

Again, if we remove zeros (students who did not attempt to answer questions in that dimension, we would meet our benchmarks for 5 out of the 6 dimensions

18. Please accompany your report with the actual results of your project as an appendix (i.e. along with this report, send the project results themselves as a spreadsheet or document) if possible. If that is not possible, please explain.*

Please see attached spreadsheet.

Susan appended the spreadsheet to the end of this document for easy reference.

19. How was student work redacted (i.e. made anonymous)?*

Students were asked to submit to D2L without a name on top. Files were downloaded as saved as "student 1 artifact, student 2 artifact, etc.". For those who did include a name anyways, it was deleted before it was saved as an artifact to be graded.

20. In general terms, describe the level of SAC involvement in the project (e.g. were both PT and FT faculty involved in contributing and/or scoring student work? Did all instructors or a representative sample of instructors contribute student work to be evaluated?) Identify any barriers to participation within the SAC.

Taryn Oakley (PT) was the only faculty who contributed work, although scoring was done by both part time and full time faculty. The biggest barrier to ESR SAC participation is that we are a small SAC. Although we have full time faculty who are SAC members, there are no full time faculty who ONLY teach ESR. This means that our full time faculty are participating in multiple SACs and multiple assessments each year, and their workload is already high. Without more funds to pay part time faculty for extra work, it is difficult to get full SAC participation. The fact that Taryn Oakley was the only SAC member who contributed work was just due to the fact that only one section of ESR 172 was able to run during winter term.

21. Were potential benefits to student learning identified as a result of the assessment project? How will the SAC use the information during the reassessment of the outcome in the future (i.e. "closing the loop.")*

Yes, I think there were several benefits realized from this assessment. The first benefit was the ability to identify some of the weaknesses in the assignment that was used. In some cases, it was clear that students had a good understanding of the material, but answers were not complete enough. We believe that rewording these questions will encourage students to give more complete answers. The next realization was that including many incomplete assignments in our assessment really brought down the percentage of students meeting the benchmark. For the future, I think it is imperative that we strive for all assessment assignments to be fully completed. When students do not answer sections, we don't know if they just skipped those questions or if they truly don't understand the material. I do believe that part of this was the way that this assignment was executed; most students hand-wrote answers and then uploaded completed assignments into D2L. In several cases, a student simply forgot to scan one of the pages, resulting in a 0 for those questions. The last benefit that was realized was that our weakest area is dimension 5, drawing conclusions. Only 62% of students met this benchmark, which means that we need to provide the students with more practice opportunities to draw conclusions based on data.

22. Please explain how results have been shared, or will be shared, with members of your SAC.

Our results will be shared in an email to the SAC and we will go over this assessment (both the process and the results) at our next SAC meeting.

23. Please comment briefly on any changes to the assessment process that would lead to more meaningful results.

This assessment seems to do a good job at showing the strengths and weaknesses of the assignment that was used. Looking back on winter term, this assessment assignment was given the class period following an exam period. Many students came late and missed the introduction and students were likely exhausted. This is not an excuse for less-than-ideal performance, but when we are basing our SAC results on only one-class, paying more attention to when the assessment is being given might give us a clearer picture of our results.

24. Based on your experience with assessment this year, are there any areas that you might want help with from your LAC coach?

I don't think that we need any help with the assessment process itself. I think the areas we need to work the most on include rewording the assignment to get more complete answers, as well as making a point to work with students on how to draw conclusions.

25. Is there anything else you want to share with reviewers about your assessment project that has not been captured in the form?

The next time that this assignment is used (for the reassessment), we plan on having students complete all sections electronically except for the graphs which they will have to scan/photograph and upload. This should limit the amount of missing answers that we have. Additionally, choosing a better time for the assessment, and spending more time discussing expectations, would likely help us meet our benchmark goals.

Please submit your report to learningassessment@pcc.edu by June 30, 2020.

ESR SAC Winter 2020 Quantitative Reasoning

Dimension	1	2	3	4
Sample #	Problem/Question	Info Needed	Representation	Interpretation
1	3	1	2	1
2	2	3	0	0
3	3	3	4	3
4	3	3	1	2
5	2	2	2	2
6	2	2	1	1
7	0	2	3	3
8	2	2	2	2
9	2	2	2	2
10	2	2	1	1
11	2	3	3	3
12	3	3	4	3
13	0	2	3	2
14	2	1	2	2
15	3	2	3	2
16	1	1	2	2
17	3	3	0	2
18	1	1	0	0
19	1	2	3	2
20	2	2	3	2
21	2	2	2	2
Average	1.95	2.10	2.05	1.86
standard dev	0.92	0.70	1.20	0.85
% at 2 or above:	0.76	0.81	0.71	0.76
remove "0" score	0.84	0.81	0.83	0.84

5	6
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Conclusion	Comm & Env
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1	2
1	0
3	3
3	1
2	2
1	2
3	1
1	1
2	2
1	2
3	2
3	2
2	3
1	2
2	3
2	2
3	3
0	0
3	3
2	2
1	2

1.90	1.90
0.94	0.89
0.62	0.76
0.65	0.84

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