

Peirce College 2020-21 Institutional Learning Outcomes Assessment Report

This report is divided into three main sections. The first section is a status report of the action items scheduled resulting from 2019-20 assessment agenda that were to be completed in 2020-21. Next is a section dedicated to the current year's assessment activities' methods, results, and implications. Finally, action item plans for the coming 2021-22 year are established and discussed.

2019-2020 Action Items in Review

Action items determined after the 2019-20 ILO assessment cycle regarding critical thinking included the following bulleted items. The current status of each item is provided in italics. Note that the COVID-19 crisis dramatically impacted our ability to achieve this agenda.

Curriculum

- Consider whether it makes sense for a critical thinking course to be a culminating GE course given that critical thinking is absolutely foundational to academic success generally. *This item was addressed in a General Education faculty meeting. The consensus was that while critical thinking is indeed foundational, basic writing skills should precede a specific focus on critical thinking and that ENG 103, given its focus on persuasive and research writing, introduces students to CT issues appropriately. It was resolved that COM 312's status as a culminating GE course will continue, although the issue may be reconsidered at a later date. Our curricular focus moving forward will be to assure better CT support for COM 312 throughout the GE curriculum*
- Assure that COM 312 is well supported by several other critical thinking-rich assignments 100- and 200-level GE and non-GE classes across the curriculum - *Pending*

Pedagogy - *Pending*

- "Selling" CT to students as crucial – in class, at work, in life
- Modeling good CT ourselves
- Having high expectations regarding CT
- Providing examples of good CT
- Embracing teaching methods that promote CT (e.g., Socratic or other dialectical method, student debates, etc.)
- Crafting assignments that promote CT
- Evaluation that explicitly calls for critical thinking (e.g., Specific CT rubric items in non-COM 312 courses)
- Swapping limited critical thinking assignments – reaction/opinion papers, assignments requiring description or exposition, "book report" assignments – for critical thinking-centric assignments – justify, defend, argue, critique, recommend, or anything else centered on a thesis claim or argument to be made and defended

Faculty development

- “Maximizing opportunities for Critical Thinking in your course” professional development in 2020-21. *This session did not happen in 2020-21. We will schedule it for 2021-22*
- Collaborative rubric development session(s) - This item needs to be incorporated into larger institution-wide initiatives related to rubrics and will be tabled until such time as it can be so integrated
- CT Audit of 100- and/or 200-level GE electives - *Pending*

2020-2021 Assessment Activities

Introduction

Since 2008 it has been Peirce’s practice to assess one of its six institutional learning outcomes (available in Appendix A below) each year using a faculty-led, rubric-based direct assessment of student learning. 2020-21 was the year of writing assessment, which had last been assessed by similar means in 2016-17. The following sections summarize the methods, results and implications of that assessment.

Method

Approach

Assessment occurred via a descriptive, analytic writing rubric drafted by Dr. Melissa Kowalski, our lead English composition faculty member, and revised collaboratively by the full Peirce faculty in a live session held April 16, 2020 in response to a preliminary norming exercise conducted using the draft rubric. The final version of the rubric used in the assessment can be viewed at https://docs.google.com/document/d/1l4UZH2m3kksLk0mdk_km-hEsjDOm2nCmGBkk9bo8BHW/edit?usp=sharing. The revisions to the draft rubric related to clarifying the distinction between grammar / mechanics and style / vocabulary and to clarify expectations related to formatting and presentation.

Assessors

All full-time faculty members -- 22 in all -- participated in the assessment. Each assessor read and rated either 16 or 17 papers. Each paper was read independently by 3 assessors. Scores were submitted via the online form available at <https://forms.gle/Zfg3KvxxVbPADBey5>.

Learning Outcome Targeted

In keeping with our multi-year ILO assessment plan, we examined ILO 1, “Communicate clearly and effectively both orally and in writing,” focusing specifically on written communication for the 2020-2021 assessment cycle.

Student Work Targeted

We seek to understand student learning outcome performance as close to graduation as possible. Additionally, evaluating the same student work for all students is ideal for both ease of evaluation and consistency. As such, we chose to evaluate the final argument paper for COM 312, Practical Reasoning,

a course required of all bachelor’s students that serves as an informal capstone to the Peirce general education core, and that requires students to complete all other required GE courses prior to enrollment and is thus normally taken in the final year prior to graduation.

The COM 312 syllabus is available at Syllabus for Master COM312 Critical Reasoning.pdf. Multi-stage instructions to students regarding how to complete the assignment can be found in the document “Final Paper (Final Copy).docx”.

Sample

Our target population was the 198 students graduating with a bachelor’s degree between June 1, 2019 and September 31, 2020. Of those students, 158 were working from a set of degree requirements that included COM 312, Practical Reasoning, the course that was our assessment target. Of those students, two transferred COM 312 from another institution, 6 completed COM 312 in a year no longer accessible via our LMS (pre-2017), 2 passed COM 312 without completing the final paper (the locus of the assessment).

Two students completed the final paper in a section where students completed the paper as part of a small group (a practice since discontinued), and 26 had other quality control issues related to the paper accessible in the LMS (only a rough draft was available, the document was unavailable, or an incompatible prior version of the final paper requirements was employed in the section), leaving a total sample of 120 papers for evaluation, representing 61% of the total bachelor’s class. The average career GPA of the 120 students in the sample was 3.4, identical to the overall population GPA, giving us at least some indication that the sample students were representative of the population of interest.

Breakdown of the sample students by degree program was as follows:

Program	Count	AVG GPA	AVG COM 312 Grade
Accounting	15	3.5	3.8
Business	37	3.3	3.5
Healthcare	22	3.6	3.7
Information Technology	11	3.3	3.6
Legal Studies	35	3.3	3.3
Total	120	3.4	3.5

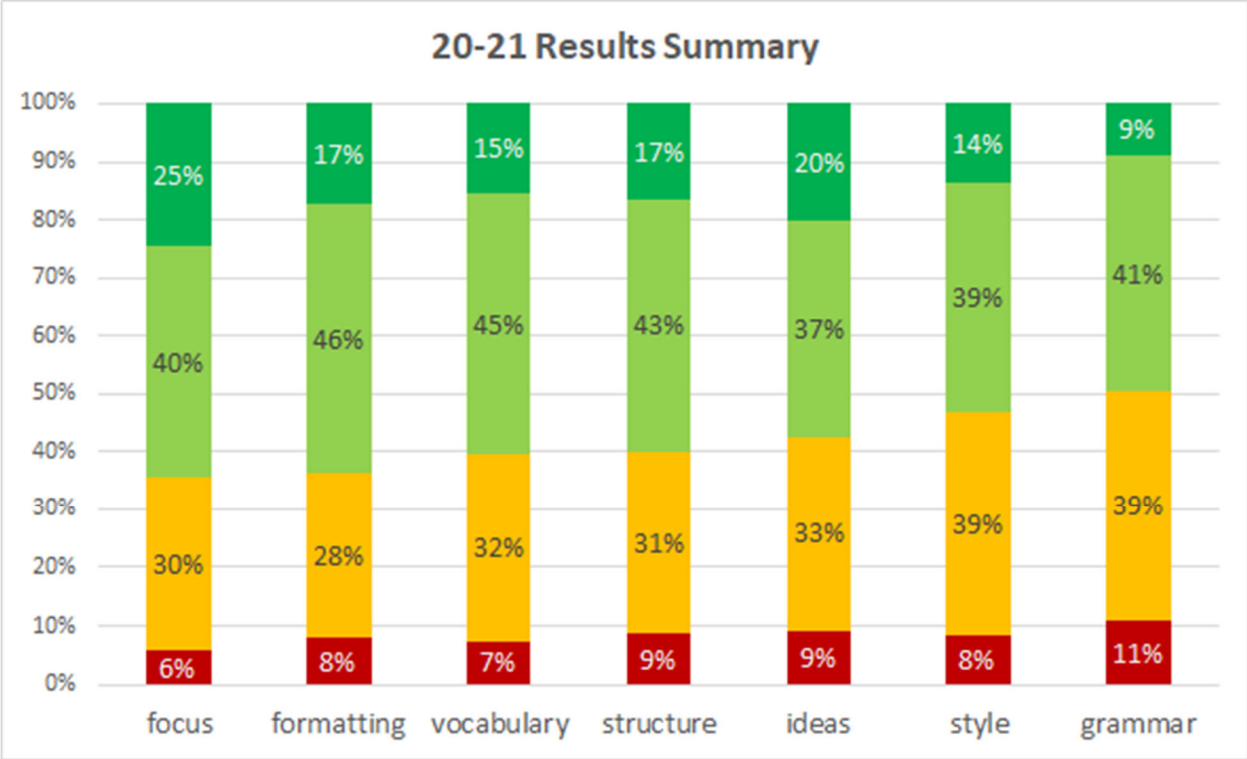
Norming

We conducted a “trial run” assessment in spring 2021 to gather feedback on the assessment rubric and to calibrate our ratings for improved consistency and reliability. Papers selected for the norming exercise were not among those included in the actual sample and were selected specifically to represent a wide range of achievement in the outcome of interest. Each rater was presented with a personalized report situating their individual scores among those of the group as a whole. Further detail regarding the norming exercise can be found in the ILOA Norming Results Discussion 02-18-2021 document.

Results

Per Criterion

Criterion	Emerging	Developing	Competent	Exemplary	Competent+
Focus	6%	30%	40%	25%	65%
Formatting	8%	28%	46%	17%	64%
Vocabulary	7%	32%	45%	15%	61%
Structure	9%	31%	43%	17%	60%
Ideas	9%	33%	37%	20%	57%
Style	8%	39%	39%	14%	53%
Grammar	11%	39%	41%	9%	50%
Overall	8%	33%	42%	17%	58%



Per Student

In addition to examining results per criterion, it is also useful to view results per student and particularly to look at the percentage of scores each student receives that meet or exceed faculty expectations (i.e., receive a score of “competent” or “exemplary”).

Ten students (8% of the total sample) received scores of competent or better in all categories by all three of their respective raters. Thirty-one students (26%) received scores of competent or better at least 75% of the time. Sixty-two percent of students received a score of competent or better for at least half of their overall scores. These percent competent data are summarized as follows:

Pct of total ratings that were competent or better	Pct of papers earning or exceeding that percentage
100%	8%
90%	19%
80%	30%
70%	44%
60%	56%
50%	62%

40%	70%
30%	80%
20%	88%
10%	95%

Analysis & Implications

Criteria Priorities

A rank ordered list of the writing rubric criteria and their respective percentage rated as proficient or better is as follows:

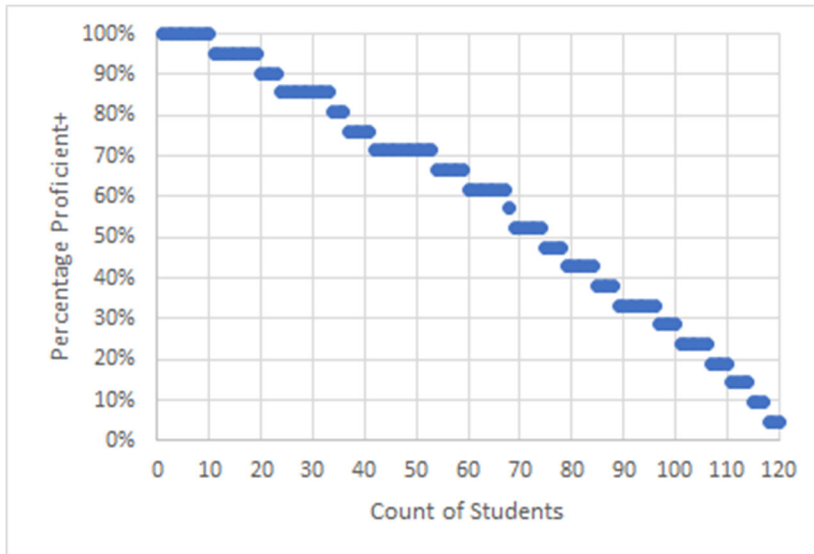
Criterion	Proficient +
Focus	65%
Formatting	64%
Vocabulary	61%
Structure	60%
Ideas	57%
Style	53%
Grammar	50%

Our benchmark for an average per-competency proficiency percentage is 75% when assessing students near graduation. Overall, we fall short of this mark here, although considerably less so in some areas than in others. The grammar and style criteria score lowest on the whole, indicating that students fall short in these areas more often than in higher order areas like ideas and focus. While this does not necessarily mean that students are *better* in these more abstract endeavors, or even that such absolute scale comparisons between criteria are meaningful, but it does mean that on average students from the sample met raters' expectations (as codified in the rubric descriptors) least often when it came to usage and mechanics criteria like grammar and style. As such, improving students' mastery of grammar and usage, and improving the extent to which those skills endure through graduation, remain a top priority after this analysis. Specific measures intended to do that are addressed in the "2021-22 Plans" section that follows.

Summative Results per Student

To report an overall summative measure of student achievement, one needs to look beyond performance per criterion to analyze overall performance per student. As discussed above, one mechanism to do so is to calculate the overall percentage of scores earned per student that were proficient or better. The overall mean per-student proficient-or-better percentage was 59%. The mean

here, however, is likely not the most useful metric as it obscures the underlying distribution of scores. Instead, we set a benchmark percentage proficient-or-better threshold of 75% and then measure the percentage of students achieving that score. Our benchmark there is for at least 75% of students to achieve this threshold score. Thirty-four percent of students in this year’s sample earned this overall score or better, well short of our goal. A rank-ordered graph showing per-student proficiency-plus is shown in the following:



Writing Performance over Time

The mean percentage of scores assessed as proficient or better over the last three writing assessment cycles is as follows:

Year	% Proficient +
2020-21	58%
2016-17	56%
2010-11	57%

The proficiency percentage performance across these 3 assessment periods is remarkably consistent over time, particularly given that the criteria sets and corresponding rubrics did change slightly for each assessment period. Happily, the slight variation that is evident reflects a slight gain in the performance of our most recent sample of graduates after a small dip in 2016-17. While there is no indication that this gain is of any statistical significance, it is encouraging that this metric is at its highest to date nonetheless. We intend to do what we can to keep that trend going (as detailed in our action items under the “2021-22 Planning” section that follows).

Writing Compared to Other ILOs

The following table shows the percentage of scores reflecting proficiency or better in the last year assessed for each of the three ILOs that are assessed via rubric:

Year	ILO	% Proficient +
2020-21	Writing	58%
2019-20	Critical Thinking	53%
2017-18	Information Literacy	58%

While writing remains a high priority at Peirce and there is still much work to be done to move toward our 75% proficient+ goal, critical thinking looks to be the area in which students are falling most significantly short.

Summary

The 2020-21 graduate sample's writing was assessed as consistent with the faculty's expectations for students at graduation 58 percent of the time. This result falls short of our 75 percent proficient-or-better benchmark. While this result represents an all-time high, student performance as measured over the last decade is essentially flat. In terms of relative priorities, among the ILOs assessed via rubrics, student performance in writing and information literacy outperforms that in critical thinking.

Meta-Assessment

In addition to measuring student performance, we also strive to understand and improve our performance as raters over time. We work to assure accuracy by iteratively and collaboratively developing our assessment rubric and reflecting on and seeking to improve its validity. We assess the precision of our measurement by looking at inter-rater reliability, i.e., the reliability of our assessments one rater to the next. Meaningful, actionable assessment is predicated on the assumption that the raters are able to agree consistently on what constitutes excellent or subpar work.

While there are many ways to assess inter-rater reliability, we find one of the most straightforward ways to also be the most instructive: by doing a pairwise comparison of each rater's score for a given paper and criteria to every other such score and calculating the percentages where there is an exact match, scores that are adjacent to each other (i.e. off by one), scores that are off by two, and scores that are antithetical (i.e. off by three) and then comparing these percentages to past performance and to those results expected to arise by chance.

Accuracy	2021 Writing	2020 Critical Thinking	2018 Info Literacy	Random Chance
Exact Match	41%	43%	35%	25%
Off by 1 or Match	89%	93%	83%	62.5%
Off by 2 or Less	99%	100%	98.5%	87.5%
Maximum Disagreement	1.0%	0.0%	1.5%	12.5%

Inter-rater Reliability Analysis

Rater agreement was solid in 2020-2021, with just shy of 90% of the pairwise rating comparisons either equal or only off by one. Agreement was higher than for the information literacy assessment conducted in 2018, but lower than that for critical thinking last year. It is surprising to see rater agreement for critical thinking outperform that for writing, given that critical thinking would seem to be necessarily more abstract.

Actions for Improving Assessment Practices Going Forward

A post-mortem discussion of agreement results among the raters involved indicated that differing attitudes towards keeping results scrupulously reflective of written expression and written expression alone -- a manifestation of the so-called “lumpers vs splitters” dichotomy -- were likely a significant source of disparity. As a potential remedy, we will assess writing, critical thinking, and information literacy simultaneously next year so that the inclination to look holistically may be directed more appropriately.

2021-2022 Plans & Action Items

The following items resulted from a post-assessment discussion with the full faculty regarding promising actions to improve student writing at Peirce. The items are broken out into those related to improving the writing outcome itself, e.g., actions to improve student writing performance, versus actions to improve future assessment efforts, e.g., meta-assessment:

Improving Writing Outcomes

- Curriculum
 - Share terminology from ENG 101/103 to all (actual process probably inappropriate given emphasis on writing process in comp classes) with faculty & improve consistency
 - Provide pointers to “refresher” materials for students, e.g., grammar, writing process
 - Incorporate Smarthinking more/more effectively

- Pedagogy
 - Develop standardized, baseline writing rubric, incorporate into WI courses
- Tutoring
 - Involve tutors in assessment activities in some meaningful way
 - Review and improve writing tutor training & development
- Faculty development
 - “Teaching/assessing writing for non-writing teachers” seminar
 - Collaborative rubric development session(s)

Improving Assessment Processes

- Improve paper choice for assessment, maybe just look at introduction and/or conclusion
- Assess critical thinking, writing, and information literacy simultaneously, more holistically and with less fine-grained decomposition, for the following reasons:
 - Improve reliability: these skills blend together and are hard to examine in isolation from one another
 - Three-ILO-in-one assessment should increase efficiency
 - Improve validity: Doing all three at once should make results more comparable to one another
- Assessing ILOs as “Power Skills”, i.e., things that employers very much care about and seek out in prospective employees, and thus focusing on ILOs from the perspective not of what we most care about necessarily, but rather what employers care about (e.g., perhaps de-emphasizing APA compliance and formatting generally in lieu of increased focus on clarity and effectiveness of expression.

Plans for Ongoing Routine ILO Assessment

ILO assessment for 2021-22 academic year will involve designing and conducting a three-in-one writing, information literacy, and critical thinking assessment as discussed in the recommendations above. Additionally, SLOAC will assess the prospect of conducting an ex-post assessment of speech communications, a component of ILO 1 that has historically gone under-assessed due to the practical challenges of conducting a large-scale live faculty audience. With the rise of online speech communication sections, it may be possible to capture large samples of student speeches for subsequent assessment, although technical and ethical issues remain to be elicited and addressed.