University Summary Report:
Written Communication and Information Literacy
Assessment of Student Learning for
Graduate Programs
Version 2: April 2, 2020

INTRODUCTION

Purpose
Institutional Learning Outcomes (ILOs) are those learning outcomes that are expected of every graduate of the institution, both undergraduate and graduate, and are closely aligned with General Education requirements. ILO Assessment follows the ILO Long Term Assessment Plan which aligns the schedule for undergraduate, graduate, and general education assessment.

Following the schedule for the ILO Long Term Assessment plan, Cal State East Bay has gathered recent student learning data to support the assessment of the University's Written Communication and Information Literacy Institutional Learning Outcomes. These data are intended to provide additional context for existing academic review discussions, analysis, and decision making to improve student learning.

Overview of Writing

Graduate students would be expected to have mastered general writing skills as part of their undergraduate degree. Writing goals in graduate programs would then be aimed at developing and mastering discipline-specific writing skills such as writing technical reports, lab reports, scholarly research articles, and professional news articles. Development of these discipline-specific writing skills is completed within major courses in a student's degree major. Students who have not mastered general writing skills prior to admission may address that deficiency by completing undergraduate writing courses, or by completing a major-specific course incorporating writing in programs which support that option. Co-curricular writing support for all students is available through the Student Center for Academic Achievement (SCAA).

Writing Skills Requirement

Per Executive Order 665, the CSU Chancellor's Office requires that all undergraduate and graduate students demonstrate competence in writing skills as a requirement for graduation. This system-wide requirement is called Graduation Writing Assessment Requirement (GWAR). To fulfill the GWAR at Cal State East Bay, students demonstrate competency by passing the Writing Skills Test, passing designated upper-division writing course(s) or passing a designated major-specific graduate course.

Overview of Information Literacy
Graduate students would again be expected to have mastered general information literacy skills as part of their undergraduate degree.   Information literacy goals in graduate programs would be aimed at developing and mastering discipline-specific skills such as working with discipline-specific databases. The University Libraries provides additional opportunities for students to develop information literacy skills through individual instruction including reference services or group instruction such as information literacy workshops or instructional sessions embedded in disciplinary courses.

METHODS

CSUEB Academic Senate policy requires that each graduate program align to at least two university ILOs, as specified in the ILO Long-Term Assessment Plan. All graduate programs have submitted ILO-PLO mappings to indicate the ILOs to which they would align, and these alignments are available on the College assessment web pages.

Due to the wide variation in the goals of the various graduate programs with respect to the written communication ILO (e.g., proficiency in technical report writing vs. persuasive essays), each aligned graduate program was asked to develop program-specific rubrics for assessing the Written Communication ILO. The same is true for the programs which aligned to the Information Literacy ILO. This process is in contrast to the assessment of ILOs in the undergraduate program where a common rubric is used to assess all undergraduate work across all programs for each ILO.

 Each aligned graduate program identified one or more graduate courses in which the ILO was to be assessed, and the instructor of the course was asked to identify or develop an assignment that could be effectively used for assessment purposes. Individual programs decided how many samples they would gather in each assessed course and also identified faculty members responsible for applying the program-specific rubrics to generate the assessment data. The results of the assessment efforts were provided in each program's annual report to the Academic Senate Committee on Academic Planning and Review (CAPR) and to the Office of Graduate Studies.

Assessment of Graduate Level ILO Written Communication Student Work 2018- 2019

Eighteen of the thirty-five graduate programs at CSUEB chose to align one or more of their Program Learning Outcomes with the Written Communication ILO and hence participated in assessment of that ILO in 2018-2019. Multiple programs from each college were represented. One graduate program chose to align to the Information Literacy ILO.

Table 1. Numbers of programs aligned by college for Written Communication and Information Literacy ILOs 2018-19.

College	Programs Represented	# Programs Aligned to Written Communication ILO	#Programs Aligned to Information Literacy ILO
CBE	Accounting Business Analytics Economics	2	1
CEAS	Early Childhood Education Educational Technology Online Teaching and Learning Reading and Literacy Hospitality, Recreation, and Tourism	5	0
CLASS	Communication Multimedia Public Administration TESOL	4	0
CSCI	Biostatistics Chemistry and Biochemistry Computer Science Engineering Management Environmental Geosciences Mathematics Statistics	7	0

As no common process was initially specified for collecting data, each program decided upon their own process.   Some programs assessed assignments from all students in an assessed class, and others chose a small number randomly. Most programs used a single assessor to assess each assignment.

RESULTS

Assessment of Graduate Level ILO Written Communication Student Work 2018-2019

Student Performance Written Communication

The results of the assessment from each graduate program were specified based upon the rubric that they used.   Five programs used the university ILO rubric for assessing undergraduate programs.   The remainder developed their own rubrics or used the ones required by their accrediting bodies. The variations in rubric criteria and the number of criteria may exemplify wide variation in the outcomes specified by the graduate programs at CSUEB in terms of written

communication skills or may be the result of discipline-specific terminology and proposed assessment methods in specifying those outcomes.

Table 2. Characterization of Rubrics for Written Communication ILO Assessment

College	Program	Rubric	# Criteria	Scale
CBE				
	Accounting	Discipline-specific	5	1-8
	Business Analytics	Discipline-specific	4	1-4
CEAS				
	Early Childhood Education	Discipline-specific	1	1-4
	Educational Technology	Discipline-specific	3	1-4
	Online Teaching and Learning	University	6	1-4
	Reading and Literacy	Discipline-specific	5	1-4
	Hospitality, Recreation, and Tourism	University	6	1-4
CLASS				
	Communication	University	6	1-4
	Multimedia	Discipline-specific	3	1-4
	Public Administration	Not available		
	TESOL	Discipline-specific	3	1-4
CSCI				
	Biostatistics	Discipline-specific	1	1-5
	Chemistry and Biochemistry	Extension to University	8	1-4
	Computer Science	University	6	1-4
	Engineering Management	Discipline-specific	1	1-8
	Environmental Geosciences	University	6	1-4
	Mathematics	Discipline-specific	3	1-4
	Statistics	Discipline-specific	1	1-5

Given the variation in criteria used for assessment, direct comparison is problematic. That said, all programs have a common goal of measuring various aspects of proficiency in written communication skills. As such, there appears to be a degree of commonality in the criteria with many programs using at least a number of criteria similar to the university rubric criteria. In the absence of a mapping from discipline-specific criteria to university rubric criteria, which might allow for detailed comparisons on a per-criteria basis, a rough comparison was completed using the following method. Scores were averaged across criteria on a per-program basis, rescaled to a 1-4 scale, and then averaged across all programs in a college, and finally across all programs in the university. One might interpret these numbers as estimates of how programs themselves see the proficiency levels of their students, where various programs may hold very different expectations as to the proficiency expected of their students.

The results of the assessment of writing performance for the ILO Written Communication on a per-program basis ranged between 2.68 to 3.91 on a 1-4 scale. The interpretation of the ranking

values for the university rubric is given below. Only one program from CBE reported Written Communication ILO assessment results, and so those results have not been shown in the College view for confidentiality reasons.

Table 3. Average score on all Written Communication criteria on scale of 1-4

	University	CBE	CEAS	CLASS	CSCI
Average score	3.36	Withheld due to low N	3.53	2.98	3.44

1 – Major Gaps   2 – Some Gaps   3 – Competent   4 – Fully Competent

Perhaps more useful are some themes that emerged throughout the ILO assessment reports.

- Most programs were satisfied with the written communication proficiency of their students across most of the criteria that they assessed.
- Many programs identified one or two criteria in which their students struggled to show proficiency, where the criteria of concern varied with the program. In some cases, the programs identified solutions that could be addressed within the program itself, while others suggested solutions using resources from the university library or new service courses.
- Programs with large proportions of international students or students who speak English as a second language experienced additional difficulties in helping their students to show proficiency in written communication skills. The Language usage and Mechanics criteria were identified as areas of concern.

Program Feedback Highlights for Written Communication

Highlights of feedback from programs which aligned to the ILO of Written Communication, taken from their ILO assessment reports, included:

Example Successes
- "Data suggest that students are able to develop their thesis and support it with summary and synthesis of scholarly works in the field."
- "… our students have learned how to use correct and appropriate academic language in the discipline by graduating from our program."
- "All of our students have learned how to use correct academic language by the end of their first semester in the graduate program."
- "However, it is very satisfying to have all of our MS graduate students able to meet the Institutional Learning Outcome for written communication by the time of their capstone experience."

Example Challenges
- "Students enter the program with highly variable writing skills, and many, many faculty hours are spent working with students to improve the written product."
- "One important finding is that most students struggle with APA formatting, despite explicit instruction and access to multiple online resources."

- "The literature review assignment was more difficult for many … students both in terms of writing and information literacy. The main difficulties included developing a clear purpose for the literature review, finding appropriate sources, and using sources appropriately to support the writer's purpose."
- "Student's weakest areas were in language usage and mechanics. As nearly all students in our graduate program are not native English speakers, this is not surprising."

Assessment of Graduate Level ILO Information Literacy Student Work 2018-2019

Only one graduate program aligned with the Information Literacy ILO. For confidentiality reasons, that data is not reported here. In addition, an "n" of one is too small to provide meaningful results. The ILO Subcommittee will address this issue in the future.

PROCESS CONSIDERATIONS FOR FUTURE GRADUATE PROGRAM ILO ASSESSMENT CYCLES

In discussions with Educational Effectiveness Committee (EEC) members and Institutional Research (IR), it became clear that it would be advantageous, in terms of data analysis and comparison of assessment results, to follow the data collection processes used in assessing undergraduate programs to the extent possible. That process is given here from the ILO Calibration Guide for the Assessment of Student Learning:

> *Faculty Assessed Student Work:* For each participating course section, four student samples were selected using Blackboard Outcomes, an electronic assessment platform within Blackboard. Each student work sample was assessed by two faculty assessors. Assessment calibration training was provided to the participating faculty representing the four colleges and Library Services. Trained faculty assessed four samples of student work from participating courses using the Written Communication ILO Rubric or the Information Literacy ILO Rubric at the end of academic year 2018-19.

The number of samples taken in 2018-2019 was lower however than the sample size of 10 suggested by Institutional Research.   For undergraduate program assessment in 2019-2020, samples sizes of 10 will be taken for assessment of the Quantitative Reasoning ILO.

No process was suggested to graduate programs doing assessment, and hence, each program developed their own methods or used methods required by their accreditation body. Going forward, graduate programs may consider following the undergraduate process where possible, and where compatible with accreditation body assessment requirements.

It should be noted that many graduate programs performed more extensive assessment even as suggested by Institutional Research. In many cases, graduate programs assessed all students in a section rather than selecting ten, and often assessed multiple assignments rather than one. As a result, following the undergraduate process would, in many cases, lead to fewer assignments being assessed. This would produce fewer data points but would reduce the burden on the faculty tasked with doing the assessment.   Following the undergraduate assessment process

would also require that each assignment be assessed by two different assessors to protect against individual assessor scoring bias. Most graduate programs used a single assessor. Undergraduate programs will be using a single assessor to assess Quantitative Reasoning in 2019-2020 due to the discipline-specific nature of the ILO. One could argue that most of the ILOs become discipline-specific at the graduate level, and hence a single assessor might always be appropriate. Graduate programs which chose to use two assessors to assess a limited number of assignments could still reduce the burden compared to assessing large numbers of assignments with a single assessor.

On a related note, in terms of reporting, it would be helpful to provide the number of assignments which were scored at each ranking for each criteria in a program's rubric rather than a single average score. This additional granularity of data would be useful for analysis purposes. Again, no guidance was provided as to the format of the data to be reported, and each program used their own reporting method.

A second consideration identified by Institutional Research was that analysis of collected data is challenging given the wide variety of rubrics chosen by the individual graduate programs. Due to the variability in the writing goals for the students in the various graduate programs, it is appropriate to allow for differences in the rubrics used to assess the student assignments. It would be advantageous, however, to emphasize any commonality that does exist. IR suggested that programs might re-evaluate whether the university rubric could be used for a given program, either in whole or part. Many programs however have developed rubrics to closely match their program goals or are bound to use rubrics specified by the accrediting bodies. In these cases, it may be reasonable to specify a mapping of program-specific criteria to the criteria in the university rubric. Even a partial mapping of program criteria to the university criteria as appropriate would allow for a reasonable level of data analysis.

SUGGESTIONS FOR COLLEGE AND GRADUATE ADVISORY COUNCIL DISCUSSIONS

Role of ILO Subcommittee
The ILO Subcommittee will review calibration results and faculty feedback in order to recommend potential changes to the ILO Written Communication Rubric and the ILO Assessment process for undergraduate work. Graduate programs currently using the university rubrics may then decide whether to adopt any proposed changes or move to a discipline-specific rubric.

Graduate Advisory Council meetings
Discussion of ILO assessment results will be placed on the agenda for the Spring 2020 Graduate Advisory Council meetings. Graduate coordinators will be asked to review results and discuss changes made to improve students learning, as well as evaluating the assessment process in order to add meaning to the results and help to improve processes for future assessment cycles.

College/Unit Discussions
Led by associate deans, each college/unit will decide their own approach to reviewing results and conducting discussions generally following the schedules outlined in ILO Long Term

Assessment Plan and EEC Communication Plan focused on discussions in fall of 2019 and implementation in Spring 2020. This includes reviewing those results that add meaning to their discussions about improving student performance in Written Communication and Information Literacy.

Support for College and Graduate Advisory Council Discussions
Please see University Summary Report for contacts and potential meeting format.   Possible additional graduate-specific discussion questions include:

1. How do results of graduate assessment compare to undergraduate assessment in departments with both undergraduate and graduate programs?   Were results as expected?
2. Were there commonalities between programs in areas of student proficiency or gaps? Can common solutions for addressing gaps be suggested?
3. What is the importance of each criteria within a rubric?   Should weights be assigned?
4. Are expectations for proficiency for similar criteria different between programs or colleges?   Should they be?
5. Which writing interventions are working well, and which are not, for graduate students in particular?
6. What else can be done to improve student writing and information literacy skills?

PLANS FOR ACTION TOWARDS CLOSING THE ASSESSMENT LOOP

Actions are being taken at the level of individual programs and across programs. For instance, at the level of individual programs, the M.S. Accounting program will require that the UWSR is fulfilled before a student may enroll in their capstone course.   The M.S. Educational Technology program will re-design course materials and learning activities to help students master written communication skills. The M.S. Reading and Literacy is creating a reader response assignment that asks students to evaluate a sample paper using the program's written communication rubric and are developing a self-paced, competency-based module on APA.   The M.A. Communication program will assess more than one section of their selected course to provide more assessment data. Each program that is aligned to the Written Communication ILO provided suggestions for improving student writing within their discipline.

As most graduate programs indicated the need for additional university support for writing, action across programs is also needed.   The Office of Graduate Studies will work with the Student Center for Academic Achievement (SCAA) to identify possible resources to support graduate-level writing.   The Office will also investigate the types of writing supports provided to graduate students at other universities to determine if they could be offered at CSUEB.