



ASSESSMENT REPORT

College	Science
Department	Psychology
Program	Psychology BA/BS
Reporting for Academic Year	2021-2022
Last 5-Year Review	2021-2022
Next 5-Year Review	2023-2024
Department Chair	David Fencsik
Date Submitted	August 3, 2022

**I. SUMMARY OF ASSESSMENT** *(suggested length of 1-2 pages)*

**A. PROGRAM LEARNING OUTCOMES (PLO)**

List all your PLO in this box. Indicate for each PLO its alignment with one or more institutional learning outcomes (ILO). For example: "PLO 1. Apply advanced computer science theory to computation problems (ILO 2 & 6)."

1. Identify key concepts, principles, and applications of psychology's content domains.
2. Apply scientific reasoning to interpret psychological phenomena and to design and conduct basic psychological research (ILO 1: Critical Thinking).
3. Evaluate the ethics of psychological science and practice.
4. Demonstrate effective communication skills (ILO 2: Written Communication).
5. Describe career options within psychology.

**B. PROGRAM LEARNING OUTCOME(S) ASSESSED**

List the PLO(s) assessed. Provide a brief background on your program's history of assessing the PLO(s) (e.g., annually, first time, part of other assessments, etc.)

During the 2016-2017 school year, we assessed PLO 4 using the CSUEB ILO Written Communication Rubric. During the 2017-2018 and 2018-2019 school years, we created and revised an online multiple-choice test to evaluate PLOs 1, 2, and 3. During the 2019-2020 school year, we used an empirical article analysis assignment to evaluate PLO 2. During the 2020-2021 school year, we used the online multiple-choice test to assess PLO 3 and also surveyed faculty on how they cover ethics in their classes. This year, we assessed PLO 4 using the CSUEB ILO Written Communication Rubric with our advanced research classes (PSYC 491/493).

## C. SUMMARY OF ASSESSMENT PROCESS

*Summarize your assessment process briefly using the following sub-headings.*

**Instrument(s):** *(include if new or old instrument, how developed, description of content)*

We evaluated student papers with the CSUEB ILO Written Communication Rubric.

**Sampling Procedure:**

Members of the assessment committee emailed four tenure-track faculty members who were teaching our advanced research classes titled “Research in [Subarea of Psychology]” (PSYC 491/493) during Spring 2022, asking them to participate in the assessment. Three out of four faculty agreed to participate, and one declined to participate due to their final paper assignment being based on a self-study of behavior change that could deanonymize the students.

**Sample Characteristics:**

We evaluated 42 student papers from three sections. Specifically, we had 18 student papers from PSYC 491B (Research in Physiological Psychology), 19 student papers from PSYC 491C (Research in Cognitive Psychology), and 5 group papers from PSYC 491D (Research in Developmental Psychology). The papers were quite different by section—students in PSYC 491B answered specific questions about their research project and planned a future research project in a worksheet format, students in PSYC 491C wrote their own professional research manuscript in our discipline’s style (American Psychological Association [APA] style), and students in PSYC 491D also wrote an APA style paper, but in groups. We did not collect any demographic information from these students.

**Data Collection:** *(include when, who, and how collected)*

At the end of the semester, all students turned in their final paper assignments. In addition to grading these papers for the course, instructors also evaluated student papers according to the CSUEB ILO Written Communication Rubric. Each anonymized student paper was also evaluated by a second faculty member, one of the three members of the Psychology Department assessment committee. Within each section, the instructor always served as the first rater and then the second rater could have been any of the assessment committee members or a combination of them. The instructor and second evaluators entered their scores for each paper into a Qualtrics survey so all scores were organized into a dataset. For the APA style manuscripts, raters were instructed to focus on only the introduction, but for the worksheet format, raters were not given instructions on how to focus their attention.

**Data Analysis:**

We averaged the two ratings for each paper to produce one score per student. Please see Table 1 below for the summary descriptive statistics by rubric category across sections (see also Appendix A for rubric). The university considers scores of 3 or 4 on the 4-point rubric to demonstrate competence in that skill area, so we highlighted the percentage of students who reached that criterion. The intraclass correlation (ICC) indicates the degree of agreement between the two raters across student papers for each category. Because the actual score matters, we explored the degree of absolute consistency (i.e., the degree to which the raters gave the same scores). Fleiss (1986) noted that agreement of .40 to .75 is fair to good. We

failed to reach this threshold on 3/6 categories and therefore our averaged ratings for those categories should be reviewed with caution. To address concerns about interrater agreement in each category, we also summed across the category scores to form the “Total” row. This row had adequate interrater reliability and gives a general sense of the strength of a paper across the specified categories.

In addition, because the papers from our three sections were different from each other, we included scores for each section in Tables 2 (PSYC 491B), 3 (PSYC 491C), and 4 (PSYC 491D) below. The interrater agreement for scores from PSYC 491C was on par or higher than the agreement for the three sections combined. Alternatively, one of the categories for PSYC 491B yielded negative agreement and four of the categories for PSYC 491D yielded zero agreement due to the negative average covariance of the ratings (i.e., the ratings moved in the opposite direction). Scores from categories with low agreement should be taken with caution.

**Table 1 (All student papers included;  $N = 42$ )**

Skill area	<i>M (SD)</i>	% of students who scored 3 or 4	ICC
Statement of purpose, thesis, or controlling ideas	2.99 (0.70)	61.90%	.49
Audience awareness	3.15 (0.67)	66.67%	.29
Organization, cohesion, and clarity	2.76 (0.60)	47.62%	.44
Presentation of supporting ideas	2.54 (0.78)	38.10%	.39
Language usage, sentence structure	2.90 (0.57)	61.90%	.24
Mechanics: grammar, punctuation, and spelling	2.94 (0.63)	59.52%	.54
Total	17.29 (4.25)	48.81% scored 18 or over	.46

**Table 2 (PSYC 491B;  $n = 18$  – Question and Answer Assignment)**

Skill area	<i>M (SD)</i>	% of students who scored 3 or 4	ICC
Statement of purpose, thesis, or controlling ideas	2.72 (0.69)	50.00%	.50
Audience awareness	2.58 (0.49)	27.78%	.22
Organization, cohesion, and clarity	2.47 (0.53)	16.67%	.36
Presentation of supporting ideas	2.03 (0.63)	16.67%	.32
Language usage, sentence structure	2.50 (0.45)	27.78%	-.13
Mechanics: grammar, punctuation, and spelling	2.61 (0.56)	33.33%	.39
Total	14.92 (2.80)	11.11% scored 18 or over	.31

**Table 3 (PSYC 491C;  $n = 19$  – APA Style Manuscript Assignment Submitted by an Individual)**

Skill area	$M (SD)$	% of students who scored 3 or 4	ICC
Statement of purpose, thesis, or controlling ideas	3.16 (0.69)	68.42%	.55
Audience awareness	3.55 (0.44)	94.74%	.19
Organization, cohesion, and clarity	2.97 (0.59)	73.68%	.67
Presentation of supporting ideas	2.97 (0.68)	57.89%	.62
Language usage, sentence structure	3.24 (0.45)	89.47%	.33
Mechanics: grammar, punctuation, and spelling	3.29 (0.51)	89.47%	.53
Total	19.18 (2.71)	68.42% scored 18 or over	.67

**Table 4 (PSYC 491D;  $n = 5$  – APA Style Manuscript Assignment Submitted by a Group)**

Skill area	$M (SD)$	% of students who scored 3 or 4	ICC
Statement of purpose, thesis, or controlling ideas	3.30 (0.57)	80.00%	.50
Audience awareness	3.70 (0.27)	100%	.00
Organization, cohesion, and clarity	3.00 (0.50)	60.00%	.20
Presentation of supporting ideas	2.70 (0.57)	40.00%	.00
Language usage, sentence structure	3.10 (0.42)	80.00%	.00
Mechanics: grammar, punctuation, and spelling	2.80 (0.67)	40.00%	.56
Total	18.60 (2.48)	60.00% scored 18 or over	.27

#### **D. SUMMARY OF ASSESSMENT RESULTS**

*Summarize your assessment results briefly using the following sub-headings.*

##### **Main Findings:**

Table 1 revealed that the majority of our students successfully stated the central purpose of the paper, demonstrated audience awareness, and had appropriate language usage and grammar. However, less than half of our students successfully supported their ideas with evidence and organized their information around their central thesis. Our analyses by section revealed that section 491B consistently had lower average scores than sections 491C and 491D. Section

491B was the section that had the question and answer format rather than the professional APA style manuscript. The lower scores among students in 491B may have been because the worksheet format prompted more informal responses and thus did not showcase their levels of competence to the raters in the same way as the APA style manuscript from the other sections. Another possibility is that students who submitted the APA style manuscript had received beneficial feedback from their instructor while developing their paper, but students who submitted the worksheet received no such feedback.

**Recommendations for Program Improvement:** *(changes in course content, course sequence, student advising)*

Over half of our students successfully demonstrated skills in 4/6 rubric categories, but ideally all of our students would meet these criteria, so we will continue to instruct students on how to state their central ideas and use appropriate language and grammar. Given that less than half of our students demonstrated skill in supporting their ideas with evidence, we need to spend more time in class helping students find and present evidence that supports their hypotheses, as well as organize their information in a coherent manner. We will also make sure that faculty are aware of student resources on campus like the Student Center for Academic Achievement, as well as faculty resources like workshops through Faculty Development that provide best practices for teaching writing skills. In addition, assigning students to write APA Style manuscripts may be preferable to a worksheet format as the professional style manuscript may better foster research understanding and writing skills.

**Next Step(s) for Closing the Loop:** *(recommendations to address findings, how & when)*

We will discuss results from the 2021-2022 assessment during a faculty meeting fall semester. After presenting the results, we will ask faculty to share their best practices for teaching students these skills and record them in a document that will be shared with all instructors in the psychology department. We will also share the aforementioned student and faculty resources for writing skills and teaching, respectively.

The assessment committee presented the results of the previous year's (2020-2021) assessment of PLO 3 (ethics) at a departmental faculty meeting on September 23, 2021. Because knowledge of ethics increased between PSYC 200 (lower-division research methods class) and PSYC 491/493 (advanced research class), faculty did not have any suggestions for improving instruction in this area. Faculty appreciated learning which ethics topics are covered by their colleagues in our faculty assessment results.

**Other Reflections:**

Analyses by section revealed lower interrater agreement on the papers from 491B and 491D than from 491C. The low agreement on 491B could be due to that assignment being in a question and answer format and raters not being as familiar with where to find evidence of competency in each category as they would be while reviewing an APA style paper. The low agreement on 491D is at least partially due to the low sample size of papers from that section ( $n = 5$ ) such that even disagreement on one or two papers could reduce the overall agreement. In the future, the assessment committee should make sure evaluated assignments are as similar as possible (e.g., all individually written APA style manuscripts). In addition, the assessment committee could hold a meeting with all raters prior to evaluation to ensure they are on the

same page about what types of papers would earn certain scores, they could decide not to have the instructor rate the paper (so all raters are new to the paper), or they could have more raters.

#### **E. Assessment Plans for Next Year**

*Summarize your assessment plans for the next year, including the PLO(s) you plan to assess, any revisions to the program assessment plan presented in your last five-year plan self-study, and any other relevant information.*

During spring semester of 2023, we plan to evaluate PLO 5 (career options within psychology). We will evaluate the degree of psychology career knowledge among our senior students in PSYC 491/493 with open-ended and multiple-choice questions.

#### **Reference**

Fleiss, J. L. (1986). *The design and analysis of clinical experiments*. New York, NY: John Wiley & Sons.