

Psychology Department Assessment Report

AY 2019-2020

The psychology department focused assessment during the 2019-2020 academic year on evaluating learning outcomes associated with participation in our program of Experiential Learning Opportunities in Psychology (ELOPsy), which includes mentored undergraduate research and internships. The psychology department has dedicated itself per the current strategic plan to promoting equity and inclusion, including making involvement in our ELOPsy courses more accessible to all students. This year's assessment included an investigation of the process by which students apply and are admitted to faculty-run research labs. In addition to examining the accessibility of collaborative lab research, we completed two tasks assessing common learning outcomes associated with the ELOPsy courses, including "career preparation," "critical analysis and reasoning," and "written communication." Assessment was a department-wide effort, conducted by faculty and staff of the department. However, a committee of three full-time faculty members was appointed to evaluate the data and write up the results for this report.

First, we assessed the department's procedure for soliciting applications and admitting students to faculty-run research labs. The department's Diversity, Equity, and Inclusion (DEI) committee created a survey that was sent out to all students to identify what motivates them to participate in ELOPsy (e.g., why they decided to apply to become a member of a research lab), as well as what deters them from pursuing these opportunities. The DEI committee also surveyed faculty about their process for soliciting applications and admitting students to their labs. We present these data in tables (see Appendix A) and briefly discuss our findings below.

Next, the psychology department assessed learning outcomes associated with ELOPsy courses. First, we surveyed alumni to assess the degree to which they believe the psychology curriculum at TCNJ adequately prepared them for their current career paths. We were particularly interested in common learning outcomes associated with our ELOPsy courses, including effective communication, critical analysis and reasoning, psychological knowledge, information literacy, and career preparation. We present the data in a table (see Appendix B) and briefly discuss our findings below.

We further assessed learning outcomes of our ELOPsy courses by surveying psychology faculty regarding scholarly outcomes that resulted from collaboration with students. The faculty reported the number of journal publications and conference presentations that they coauthored with students. Coauthoring papers and presentations is an important career building activity, particularly for students who plan to attend graduate school. In identifying ELOPsy courses that yielded the most scholarly outcomes for students, we were able to indirectly assess whether all students had the same opportunity to coauthor publications and conference presentations. We present the data in tables and graphs (see Appendix C) and briefly discuss our findings below.

Assessment of Lab Accessibility and Equitability

Psychology students participating in a research lab during the spring 2019 semester were surveyed about their experiences applying for and participating in research labs. Approximately half of all students participating in a lab responded to the survey ($N = 63$). Of those who responded, 33.3% reported that it was their 1st semester participating in a research lab, 31.7% reported that it was their 2nd semester participating in a research lab, and 34.9% reported that it

was their 3rd semester participating in a research lab. A majority of students (65.1%) reported only participating in a single lab for credit. A total of 22.2% of students who participated in a research lab for credit were first-generation college students (i.e., the first in their family to attend a 4-year college/university). The majority (68.3%) identified their ethnicity as European American/White; 15.9% as African American/Black; 11.1% as Asian/Asian-Pacific Islander; and 11.1% as Latinx/Hispanic. Most students (82.5%) identified as female (15.9% male).

In response to open ended questions about their lab experiences, students responded about what motivated them to join a lab, positive and negative aspects of being in a lab, and ideas to improve equity and inclusion in lab. Students responded that they were motivated to join a lab because 1) they were interested in gaining research experience; 2) they had a positive relationship with the faculty member or another student in the lab; and/or 3) they wanted to extend their learning beyond the classroom and advance their future plans or goals (e.g., to attend graduate school). Students' responses about positive aspects of being in lab included 1) gaining skills and leadership or research experience; 2) building connections with professors and other students; and 3) experiencing a different learning environment (e.g., a relaxed and supportive academic environment, no exams). Negative aspects included 1) a more difficult work load and larger time commitment; 2) a lack of interest in the topic; and 3) challenges to working in groups, as well as challenges specific to their experience (e.g., limited opportunity to publish; little autonomy). Students' ideas for improving lab inclusion and access consisted of 1) better advertising of these experiences (e.g., flyers, student involvement fair and lab fairs); 2) being clearer about benefits and what the lab experience entails; and 3) other strategies to increase access (e.g., events to increase awareness and interest in faculty research).

The psychology faculty was also surveyed about the characteristics of their lab students and the ways in which they recruit and admit students into their research labs (see Appendix A. Almost all of the full time psychology faculty members (19 of 20) completed the survey, which included open-ended questions about their selection criteria for joining lab. While approximately half of the faculty (52.6%, $n = 10$) reported that demand for spots in their lab is too great, other faculty reported that demand is either too little (21%, $n = 4$) or it varies (26.3%, $n = 5$). Some faculty members (31.6%, $n = 6$) stated that criteria for joining lab are flexible (i.e., criteria can be waived). The number of criteria varied: 26% of faculty ($n = 5$) listed 3-4 criteria; 26% ($n = 5$) listed 2 criteria; 36.8% ($n = 7$) only gave one criterion; and 10.5% ($n = 2$) responded that they do not require that students meet any specific criteria to join the lab. Some criteria were listed as preferred rather than required. A relatively common criteria listed by faculty (57.8%, $n = 11$) was that students earned a specific grade in a course (e.g., B or higher in Psy121 Methods and Tools or Psy203 Design and Analysis). Seven of the faculty (36.8%) listed that invited students must express an interest in the lab topics. Four of the faculty (21%) required that invited students meet a certain overall GPA cutoff (2.5-3.0). Two faculty members (10.5%) invite students to join if they directly observed their strong performance in a course or if another faculty member recommends the student. Two of the faculty (10.5%) listed that the students must be "responsible." One faculty (5%) required that the students commit to being in the lab for more than one semester. When asked about factors they consider in selecting students to join their lab, the majority of faculty listed three (42%, $n = 8$) or more factors (31.6%, $n = 6$), but some listed only one (10.5%, $n = 2$) or two factors (15.8%, $n = 3$). See Appendix A, Table 3 for the list of factors provided by the faculty.

Assessment of ELOPsy Learning Outcomes

We assessed learning outcomes associated with our ELOPsy courses by surveying recent alumni about learning outcomes they believed they achieved as a result of their participation in these courses. The Office of Career and Leadership Development included these questions in their “One-Year-Out” survey. A total of 76 alumni from the psychology class of 2019 responded to the survey. Of those who responded, 36 (47%) reported that they had completed at least one ELOPsy course: 33 had taken Psy390/492, 18 had taken Psy391/393/492, and 20 had taken Psy399/499. A summary of their responses is presented in Appendix B, Table 3. Although the sample size was too small to test for statistically significant differences across the courses, it would appear that students reported achieving the learning outcomes of effective communication, ethical reasoning and compassion, and career preparation more often in the internship courses compared to the research courses where they were more likely to report achieving scientific and quantitative reasoning, critical analysis, and technological competence. Surprisingly, the ratings for the research ELOPsy courses were similar to the non-ELOPsy courses at the same designation levels (PSY3xx/4xx).

Assessment of Scholarly Outcomes

The final task of the 2019-2020 Psychology Department’s assessment plan was to survey faculty about the number of student coauthored scholarly outcomes. Findings showed that publications only resulted from research-based ELOPsy courses (Psy390/492, Psy391/393/493, Psy396/496) and Research Seminar (Psy299), though some poster presentations resulted from 300-level non-ELOPsy courses. Although publications spanned all research-based courses, most resulted from projects students completed for the honors thesis (PSY396/496). Given that only a small percentage of students complete the honors thesis compared to the other research-based courses, it would appear that this course is much more likely to result in a coauthored publication or presentation than the other research courses.

Summary and Conclusion

The psychology department focused their assessment during the 2019-2020 academic year on the accessibility of research lab participation and learning outcomes associated with ELOPsy courses. Findings suggest that the psychology department might not offer all of its students access to the same learning outcomes. Opportunities for participation in research vary across different labs. Although research labs appear to be relatively diverse overall, most of the diversity comes from only a few research labs. Additionally, most student-coauthored publications and presentations resulted from the senior honors course (Psy396/496). Given that the department’s 2018-2019 assessment found that Black students are less likely to enroll in the honors thesis, findings from the current assessment suggest that Black students have less opportunity than other students to coauthor journal publications and conference presentations, important career building activities for students who plan to apply to graduate school. The psychology department will consider findings from this assessment in making changes to increase the accessibility and equitability of its ELOPsy program.

Appendix A

Table 1: Lab Descriptive Statistics

| | <i>Mean</i> | <i>SD</i> | <i>Min</i> | <i>Max</i> | <i>N</i> |
|---------------------------------|-------------|-----------|------------|------------|----------|
| Typical Size | 8.78 | 2.24 | 7 | 15 | 19 |
| Ideal Size | 8.23 | 1.83 | 6 | 12 | 13 |
| Max Size | 10.31 | 1.55 | 7 | 13 | 13 |
| Hrs. outside Lab Meeting | 5.89 | 2.45 | 2 | 10 | 18 |
| Percent Return | 58.42 | 23.07 | 20 | 100 | 19 |

Table 2: Psychology Labs with Varying Proportions of Student Characteristics (% (N))

| <i>Lab Diversity</i> | <25 | 25-50 | 50-75 | >75 | <i>N</i> |
|-------------------------|---------------|--------------|--------------|---------------|----------|
| First Generation | 41.7 (5) | 25.0 (3) | 33.3 (4) | 0 | 12 |
| Non-White | 50.0 (9) | 38.9 (7) | 5.6 (1) | 5.6 (1) | 18 |
| Male | 61.0 (11) | 33.3 (6) | 5.6 (1) | 0 | 18 |

Table 3: Factors Used in Decision to Accept Students into Labs

| Factors | % (N) |
|--|--------------|
| Interest in Lab Topics/Research | 78.9 (15) |
| Special/Relevant Skills (e.g., Spanish speaker, cultural literacy, writing & analyses, experience with urban setting, worked with children) | 36.8 (7) |
| Interpersonal/ Social Skills | 31.6 (6) |
| Responsible/work independently | 26.0 (5) |
| Relevant Course work | 21.0 (4) |
| Motivated | 15.8 (3) |
| Grades | 15.8 (3) |
| Ethnic Diversity | 10.5 (2) |
| Faculty Recommendation | 10.5 (2) |
| Other: factors mentioned only once (time in schedule; not done ELOPsy; balance student doing 390/492; commit to more than 1 semester; year in school; number needed) | 5.0 (1) |

Appendix B

| Learning Outcome | Psy390/492 Collaborative Research/La b (<i>n</i> = 33) | Psy391/393/493 Independent Study/Research h (<i>n</i> = 18) | Psy399/49 9 Internship (<i>n</i> = 20) | Psy3XX/4X X Seminars (<i>n</i> = 33) |
|--|---|--|---|---|
| Effective Communication | 78.79% | 61.11% | 95.00% | 66.67% |
| Scientific/Quantitative Reasoning | 93.94% | 83.33% | 30.00% | 69.70% |
| Technological Competence | 45.45% | 38.89% | 30.00% | N/A |
| Critical Analysis and Reasoning | 87.88% | 88.89% | 65.00% | 84.85% |
| Information Literacy | 66.67% | 44.44% | 55.00% | 63.64% |
| Ethical Reasoning and Compassion | 66.67% | 38.89% | 80.00% | 57.58% |
| Career Preparation | 63.64% | 66.67% | 100.00% | 63.64% |

Appendix C

| Course | Number of student-coauthored papers | % | Number of student coauthors who presented at a conference | % |
|----------------------|-------------------------------------|--------|---|--------|
| PSY 299 | 3 | 5.26% | 4 | 2.90% |
| PSY 300 (Non-ELOPsy) | 0 | 0.00% | 2 | 1.45% |
| PSY 400 (Non-ELOPsy) | 0 | 0.00% | 0 | 0.00% |
| PSY 390 | 14 | 24.56% | 55 | 39.86% |
| PSY 492 | 9 | 15.79% | 19 | 13.77% |
| PSY 391/393 | 4 | 7.02% | 5 | 3.62% |
| PSY 493 | 8 | 14.04% | 15 | 10.87% |
| PSY 396/496 | 19 | 33.33% | 38 | 27.54% |
| PSY 399 | 0 | 0.00% | 0 | 0.00% |
| PSY 499 | 0 | 0.00% | 0 | 0.00% |
| Total | 57 | | 138 | |

