**Department of Psychology**

**Undergraduate Assessment Report 2015-2016**

**Paul C. Price**

**Undergraduate Assessment Coordinator**

**Constance Jones**

**Department Chair**

**What Learning Outcomes Did You Assess This Year?**

Learning Outcomes Assessed

* 1. Students can demonstrate knowledge and understanding of theory and research in at least two of the following areas: biopsychology, cognitive, learning, motivation, sensation, and perception.
	2. Students can demonstrate knowledge and understanding of theory and research in at least two of the following areas: clinical, developmental, personality, social.
	3. Students can demonstrate knowledge and understanding in history and systems, research methods, and statistics.

3.1 Demonstrate effective written communication skills.

3.2 Demonstrate effective oral presentation skills.

3.3 Demonstrate numerical literacy.

**What Instruments Did You Use To Assess Them?**

Departmental Exit Exam

In Summer 2015, Fall 2015, and Spring, 2016 we administered the online Departmental Exit Exam developed over the past few years by faculty member Dr. Ron Yockey. The Exit Exam consists of 78 multiple-choice items covering all major content areas of psychology, including those mentioned in Outcomes 1.1, 1.2 and 1.3. We administered the Exit Exam online for extra credit to students in our required capstone Psych 182 course, where the vast majority of students are graduating seniors. We focus here on the data from Spring 2016, when 150 students completed the Exit Exam.

Dr. Yockey’s previous work on the Exit Exam has focused on its psychometric properties as a *norm-referenced* assessment, where the primary concern is how students score relative to each other (as with the SAT or GRE). From this perspective, he has already shown that the Exit Exam has fairly good reliability and validity so that we should be able to use it to see how student performance relates to various student characteristics and experiences.

However, for purposes of this report we are treating it as a *criterion-referenced* assessment, where the primary concern is whether students are reaching a particular standard of performance (as with the CBEST or a driver’s license exam). This is a more meaningful perspective given the nature of the outcomes we wish to assess. Not having used the test in this way before, we decided on a tentative performance standard that students would average 75% correct overall and that they would average 75% correct for each of the three sets of content areas collectively covered by Outcome 1.1 through 1.3.

Departmental Senior Survey

*The Instrument*. In conjunction with the Exit Exam, we also administered our online Senior Survey. To address Outcomes 3.1 (written communication skills), 3.2 (oral presentation skills), and 3.3 (numerical literacy), we focused on three items on the Exit Exam asking students to self-report their improvement in these areas as psychology majors at Fresno State. They made their responses on a four-point scale: *not at all*, *a little*, *somewhat*, or *a lot* (coded 1, 2, 3, and 4 for analysis). Our standards were that their mean response would be at least 3.00 (somewhat) on the four-point scale, that at least 50% would respond *a lot*, and that at least 80% of would respond either *somewhat*.

Psychology 144 Poster Presentation Rubric

In May, 2016 we used a newly developed rubric to evaluate poster presentations made by students in Psych 144—our undergraduate research methods course. Faculty members on our Undergraduate Committee visited the poster sessions, interacted with the student presenters, and rated a small sample of them on their ability to describe their hypothesis, the rationale for their hypothesis, their method, their results, and the implications of their study. They also rated their overall oral presentation skills. All ratings were made on a five-point scale: *beginning*, *developing*, *proficient*, *advanced*, or *accomplished*. Our primary performance standard was that 80% of the students should be rated proficient or above on their overall presentation skills. Our secondary standard was that 80% of the students would be rated proficient or above on each of the more specific content areas.

**What Did You Discover From These Data?**

Departmental Exit Exam

As a criterion-referenced assessment, the results of the Exit Exam were somewhat disappointing. (See Table 1.) The overall mean score was 65% with a standard deviation of 12%. For the content areas in Outcome 1.1, the mean score was 66% with a standard deviation of 14%. For the content areas covered in Outcome 1.2, the mean score was 60% with a standard deviation of 15%. And for the content areas covered in Outcome 1.3, the mean score was 68% with a standard deviation of 14%. In addition, there was no individual content area that produced a mean score above 75%.

The foregoing analysis could be misleading, though, in that Outcomes 1.1 and 1.2 both specify that students should be knowledgeable in “at least two” out of a larger number of content areas. So it is possible that students are in fact tending to score well in two areas but that their overall scores are brought down because they are scoring poorly in the other areas. To test this idea, we counted the number of students who scored 75% or higher on two or more of the content areas specified in each of Outcomes 1.1 and 1.2 For Outcome 1.1, only 64 students (53%) met this standard. For Outcome 1.2, only 49% did.

 Thus, we discovered that our students are generally answering large numbers of questions on the Exit Exam correctly—demonstrating some knowledge of the fundamentals of psychology. But their performance still seems a bit low on average.

*Table 1. Number of Items, Means, and Standard Deviations for Each Content Areas on Exit Exam*

|  |  |  |  |
| --- | --- | --- | --- |
| **Content Area** | **# Items** | **Mean** | **SD** |
| History | 7 | 74% | 17% |
| Sensation | 7 | 73% | 21% |
| Cognitive | 7 | 72% | 18% |
| Personality | 4 | 69% | 26% |
| Methods | 8 | 68% | 19% |
| Social | 5 | 66% | 25% |
| Biological | 11 | 63% | 16% |
| Statistics | 8 | 63% | 20% |
| Developmental | 6 | 57% | 21% |
| Motivation | 2 | 58% | 38% |
| Abnormal | 8 | 56% | 18% |
| Learning | 4 | 56% | 26% |
| Outcome 1.1Bio, Cog, Sens, Lrn, Mot | 31 | 66% | 14% |
| Outcome 1.2Soc, Pers, Dev, Abn | 23 | 60% | 15% |
| Outcome 1.3Meth-Stats-Hist | 23 | 68% | 14% |
| Total | 77 | 65% | 12% |

Departmental Senior Survey

The basic results are presented in Table 2. Means for all three ratings either exceeded our standard of 3.00 or were very close. (It may also be worth noting that all three of these means are slightly higher than they were last year.) The percentage of students responding *a lot* came close to our standard for written communication skill, missed by a bit more for oral presentation skill, and missed by quite a bit for numerical literacy skill. However, the percentage of students responding at least *somewhat* either exceeded our standard or came very close. So overall it seems that students’ perceptions of improvement in these three domains are fairly positive.

*Table 2. Self-Ratings of Improvement in Written Communication, Oral Presentation, and Numerical Literacy Skills. Means and Standard Deviations (on 1-to-4 Scale).*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Domain** | **Mean** | **SD** | **% *A Lot*** | **% At Least *Somewhat*** |
| Written Communication | 3.31 | 0.79 | 48% | 87% |
| Oral Presentation | 3.20 | 0.82 | 41% | 84% |
| Numerical Literacy | 2.96 | 0.88 | 28% | 75% |

Psychology 144 Poster Presentation Rubric

Table 3 presents a detailed summary of ratings for this sample. Note that there were 16 students in the sample but, due to technical issues, we have a complete set of ratings for only 13 of them. We found that all 13 of these students were rated as proficient or advanced on their overall presentation skills—meeting our primary target performance standard. However, for the more specific content areas, we found that 80% of the students met the target performance standard only for describing the hypothesis.

This tells us that although our students seem to have fairly good presentation skills in terms of delivery, they struggle somewhat in communicating the details of their research projects—especially the method, results, and implications. We also learned that this assessment approach is difficult to carry out because of the somewhat chaotic nature of poster sessions. The order in which information is presented is non-standard, research collaborators tend to jump into the discussion, and there are numerous distractions for both presenters and raters.

*Table 3. Number of Students Whose Poster Presentations Were Rated at Each of Five Levels Along Each of Six Dimensions.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Dimension* | *Beginning* | *Developing* | *Proficient* | *Advanced* | *Accomplished* | *Met Target* |
| Hypothesis | 2 | 1 | 6 | 6 | 1 | 81% |
| Rationale | 2 | 4 | 8 | 2 | 0 | 62% |
| Method | 2 | 7 | 2 | 4 | 0 | 38% |
| Results | 2 | 6 | 5 | 1 | 1 | 44% |
| Implications | 2 | 8 | 2 | 2 | 1 | 31% |
| Presentation | 0 | 0 | 6 | 7 | 0 | 100% |

**What Changes Did You Make as a Result of the Findings?**

Departmental Exit Exam

These are fairly new results so we have not had much opportunity to make changes yet. However, we will be sharing the results with the entire faculty at our faculty meeting in September to get their reactions and ideas. We also need to discuss the norm-referenced versus criterion-referenced assessment issue and decide whether the Exit Exam as it now stands is an appropriate assessment given the nature of outcomes in our SOAP. As a department we will also revisit an idea that we have considered in the past, which is to have a required capstone course that involves reviewing the entire field of psychology.

Departmental Senior Survey

These results are generally fairly encouraging and do not suggest any obvious changes (although see below for more on oral presentation skills).

Psychology 144 Poster Presentation Rubric

These results have been shared and discussed with all current Psych 144 instructors. We have added “oral presentation skills” to our list of topics to be covered in all sections of this course and are working on a list of resources for teaching oral presentation skills that will make available to the Psych 144 instructors and to the entire psychology faculty. Although we will probably use this assessment approach again in the future, we will also look for other opportunities to assess oral presentation skills—especially in more advanced courses.

**What Assessment Activities Will You Be Conducting in the 2016-2017 Academic Year?**

Per our SOAP, we plan to administer the Exit Exam and Senior Survey again this year—although it seems likely that we will make modifications to the Exit Exam. Also per our SOAP, we plan to evaluate research papers written by our Psych 144 students based on a rubric developed last year.

**What Progress Have You Made on Items From You Last Program Review Action Plan?**

The following goals are listed in our 2014-2018 Action Plan:

*Track undergraduate student progress via a “pipeline” analysis of an “average” psychology student, and track failure rate in Psychology 10, Psychology 144, and Psychology 182.*

Pipeline analyses have not been performed, but careful analyses of failure rates were done and presented in faculty meetings during the 15-16 academic year. Failure rate for Psychology 144 and Psychology 182 are deemed acceptable; failure rate for Psychology 10 remains a concern. Based on this, this semester we are implementing an intervention for one of our Psychology 10 classes, with iCicker questions based on assigned text readings added to the beginning of each class session, to encourage reading the text and attending class. Effects on pass rate will be analyzed, and if the intervention is effective, additional Psychology 10 instructors will be encouraged to add iClicker questions. In addition, the mandatory writing assignments for Psychology 10 were modified, to be more interesting and student-friendly.

*Track undergraduate student alumni career progress via telephone survey of recent graduates.*

Data were collected from Psychology alumni Spring 2013 via telephone survey and were analyzed and presented, both to faculty and in a scientific venue at the Western Psychological Association in Spring 2014. The College of Science and Mathematics is currently in the process of tracking and contacting alumni from across the entire college. A call went out to faculty Spring 2016, with follow up requests occurring this month, to identify alumni they know with interesting professions, with the hope that these alumni would be willing and able to reach out to current students. CSM alumni will be encouraged to post their information with the Fresno State Alumni Association “Career Connections.”

*Revise our B.A. SOAP*

We revised our SOAP, clarifying and simplifying goals and learning outcomes, Spring 2015.

*Increase number of tenure-track faculty*

2015-2016 we requested, searched for, and successfully recruited a new faculty member in Applied Behavior Analysis. Dr. Laura Grow has joined the faculty Fall 2016.