Psychology Department Learning Outcomes Evaluation

Initial Evaluation of all Outcomes, 2016-2017

The Department of Psychology has adopted five primary learning goals, adapted from those of the American Psychological Association’s guidelines for undergraduate psychology majors. These learning goals, along with specific outcomes, are listed below.

**1. Develop a thorough and broad knowledge base of psychological concepts**

* 1.1 Describe key concepts, principles, and overarching themes in psychology
* 1.2 Develop a working knowledge of psychology's content domains
* 1.3 Describe applications of psychology

**2. Demonstrate competence in scientific Inquiry and Critical Thinking**

* 2.1 Use scientific reasoning to interpret psychological phenomena
* 2.2 Demonstrate psychology information literacy
* 2.3 Engage in innovative and integrative thinking and problem solving
* 2.4 Interpret, design, and conduct basic psychological research
* 2.5 Incorporate sociocultural factors in scientific inquiry

**3. Demonstrate ethical and social responsibility in a diverse world**

3.1 The skills in this domain involve the development of ethically and socially responsible behaviors for professional and personal settings in a landscape that involves increasing diversity.

**4. Develop strong written and oral communication skills**

 **Communication**

* 4.1 Demonstrate effective writing for different purposes
* 4.2 Exhibit effective presentation skills for different purposes
* 4.3 Interact effectively with others

**5. Apply foundational knowledge and skills to career/professional development**

* 5.1 Apply psychological content and skills to career goals
* 5.2 Exhibit self-efficacy and self-regulation
* 5.3 Refine project-management skills
* 5.4 Enhance teamwork capacity
* 5.5 Develop meaningful professional direction for life after graduation

This reportpresents an analysis of whether and how courses required for the major, as well as student work completed within those courses, adequately ensure that students meet our learning outcomes. Based on that analysis, we sought to identify two learning outcomes for focus in 2017-2018.

**Method**

**Background assumptions**

1. The psychology department maintains that students' course grades are meaningful in assessing how students have performed. Thus, exams, course assignments, and individual course grading rubrics are meaningful for assessing learning outcomes. It is assumed that if. If those items reflect increasing sophistication on learning outcomes, then students who succeed at those requirements will, by definition, have achieved more advanced status on the learning outcome.
2. For written assignments it is useful to look at actual student work in addition to grades, and we do so where applicable. This allowed us, in this initial evaluation, to validate our assumption that grades are meaningful in assessing learning outcomes.

**Goals**

Our focus for this initial learning outcome evaluation was as follows: 1) For each learning outcome, identify what differentiates assignments and student work at different levels within the major by examining materials that were relevant for that outcome; and 2) For each learning outcome, discuss and determine the extent to which observed differences are aligned with our learning goals.

**Approach**

1. We gathered materials from a variety of courses chosen to reflect novice and more advanced achievements for each learning outcome. Materials included syllabi, assessment items (multiple choice exam items, assignment descriptions), and selected small samples of student work such as written assignments, chosen by instructors to reflect high, average, and low quality work.
	1. For written work, we asked for excellent, adequate, and poor examples – approximately 6 per instructor. This gave us a minimum of 6 examples of student work, and more in cases where a course is offered by multiple instructors or where instructors simply provided more examples.
2. Although we had initially hoped to use quantitative approaches to evaluating these items, we chose, in this initial pass, to approach the data qualitatively. This was more consistent with the relatively small and non-randomly chosen sample sizes for student work that we had gathered (see below for sample sizes); and b) the widely varying nature of assignments given in different courses, making direct comparisons on particular dimensions quite difficult.
3. To do so, the undergraduate committee sat together and examined materials, focusing on a single learning outcome at a time, and reading either all examples or subsets of examples. We then discussed whether and how the examples addressed the target learning outcome, and whether earlier and later courses within the major reflected increasing competence on the targeted learning outcome. The results of this discussion were a consensus evaluation of the program with respect to the target learning outcome that formed the basis for the report below.
4. Beginning Spring 2016, we also assessed student perceptions of the extent to which their courses fulfilled each of the five learning goals in the context of student evaluations. Students rated the extent to which a course had helped them attain each of the broad learning goals on a 6-point scale with 1 signifying very little, and 6 signifying that a course was important in helping them attain a particular learning goal. These data are reported in Part 3 of the Results.

**Description of Materials Evaluated for Each Learning Outcome**

1. Syllabi from all syllabus-based courses offered.
2. Knowledge base in psychology: multiple choice exams from Psy 1010 (General Psychology) and from the 3000 level core area courses (e.g., Psy 3120 (Cognitive Psychology), Psy 3410 (Social Psychology), Psy 3215 (Development in Infancy).
3. Scientific method/critical thinking: in addition to the multiple choice items above, critical thinking exercises from Psy 2010 (Psychology as a Science and Profession; n = 16), and the research paper from Psy 3010 (Research Methods in Psychology; n = 17).
4. Communication/writing: Brief writing assignments from Psy 2010 (n = 16); Research papers from Psy 3010 (n = 17); writing assignments from Psy 3215 (n = 2).
5. Ethics in a diverse world: Syllabi for courses; exam items from Psy 1010 and Psy 3010; discussions with UG committee faculty; no student work evaluated.
6. Career and professional development: resume and interest exploration assignments from Psy 2010 (Psychology as a Science and Profession, n = 16), and self-reflection and journal article assignments from Psy 4810 (Internships and Field Experience, n= 5).

In all cases where we examined student work, we asked instructors to provide deidentified examples of high- quality, adequate, and low-quality student work. This allowed us to validate the idea that student grades are an important indicator of whether individuals meet learning outcomes.

**Results**

**Results Part 1: Syllabus Review**

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|  | Learning Goals |
|  | Knowledge  | Scientific Inquiry/Critical Thinking | Ethical/Social Responsibility in Diverse World | Communication | Career/Professional Development |
| “Backbone” Required of all Majors |  |  |  |  |  |
| 1010 | X | X | X | X | X |
| 2010  | X | X | X | X | X |
| 3000 | X | X |  |  |  |
| 3010 | X | X | X | X | X |
| Core Area Content Courses (20+ possible courses across 5 core areas, students must select 4)  | X | X | Some courses address this explicitly and others more implicitly | Some courses require papers or presentations; the ‘stakes’ of these assignments vary  | Some courses address this explicitly (e.g., Survey of Clinical Psychology); others via particular assignments (Core courses in Developmental Area).  |
| Lower division electives (2000 level – 5 possible courses, students are limited in the number of lower division credits that can be counted for their major) | X | Varies | Varies  | Varies | Varies |
| Upper division electives (30 + courses; 3000 level and up; includes honors seminars, undergraduate enrollment in graduate coursework, and ‘extra’ area core courses) | X | X | Varies | Varies | Varies |
| **“Signature Experiences”**- Upper division coursework providing specialized opportunities in research, peer advising, and internships.  |  |  |  |  |  |
| Peer Advising |  |  | X | X | X |
| Internships and Field Experience | Students learn about applications of psychology to varying degrees; but the instructor does not teach content knowledge explicitly. |  | X (Students read the APA Ethics Code and answer reflection questions on ethics.) | X (Reflection papers and oral communication about internship work during class meetings). | X |
| Research Experience  | X | X | X | X | X |
| Honors Research and Thesis work | X | X | X | X | X |

Summary: **Required coursework ensures that all majors encounter material related to all of our learning outcomes over the duration of their undergraduate experience**. However, there remains significant variability in the extent to which students encounter multiple exposures to some outcomes based on the courses they take, their overall course of study and major emphasis, and their participation in major-related educational activities/opportunities that are not technically required for the major (e.g., participation in research intensive or internship focused experiences. While numbers vary, over the past years, approximately 200 students per year participate in one or more of these more intensive experiences, representing roughly 25% of our majors by some counts. We are working towards making these opportunities available to more students, but there will be limits to the number of students who can be included without additional resources for instruction and advising. In addition, while ethics as a learning outcome is covered in varied ways in required and elective coursework, required coursework generally does not involve assignments that would allow assessment of student’s ability to apply ethical principles.

**Results Part 2: Qualitative examination of less and more advanced coursework and student work for each learning outcome**

 **Knowledge Base in Psychology.** Our committee evaluated multiple-choice exams from the introductory psychology course and three of the area cores (Psy 3120, Cognitive Psychology; Psy 3215, Development in Infancy; Psy 3150, Sensation and Perception), as well as input from UG committee members regarding exams in Psy 3410, Social Psychology; and Psy 3230, Adult Development and Aging). While all exams assess knowledge acquisition, we noted some important differences in the nature of this assessment. The introductory course assessed knowledge of basic concepts and their straightforward application to real world problems; typically items had one clear right answer. More advanced course exams asked more sophisticated questions requiring a more thorough understanding of the subject matter, for example by assessing students’ ability to correctly identify and distinguish theorists and models, to fill in missing aspects of models, and to apply the knowledge in more sophisticated and nuanced ways. Such assessments clearly required more extensive knowledge, as well, in the form of questions like “which of the following is NOT an example of a principle of Bowlby’s attachment theory?”, requiring students to recognize several principles underlying attachment theory, as well as to distinguish those principles from principles covered in the course, but connected to other theories. **Our conclusion is that the major is doing an excellent job in attaining and assessing the knowledge learning outcome.**

 **Critical Thinking/Scientific Inquiry.**  Multiple choice exams also indicated an increasing demand for critical thinking and scientific inquiry skills as majors advance towards completion of their degree. In addition, the committee reviewed examples of analyses of research articles and research programs from Psy 2010 and Psy 3010. These examples indicated an increasing sophistication of students' ability to understanding important elements of research design (and their limitations) as students advanced within the major. Psy 3010 requires students to complete their own research projects. **Our conclusion is that the major is also doing an excellent job in attaining and assessing the critical thinking/scientific inquiry outcome.** Note that students completing more intensive research experiences (through research experience coursework and honors thesis coursework) acquire significantly more experience in designing, conducting, and, as we consider next, communicating about their own projects.

 **Communication/Writing.** The committee also reviewed samples of student written work from Psy 2010 (Psychology as a Science and Profession), Psy 3010 (Research Methods), and Psy 4810 (Internships and Field Experience). The assessment of the committee was that student writing samples clearly increase in complexity and sophistication from Psy 2010 to Psy 3010 papers. In terms of what is required for all majors, the most demanding writing assignments are the research paper(s) required in the writing intensive Psy 3010 (Research Methods in Psychology) course. Papers which received high grades reflected a good grasp of a research content area, communicated that area clearly and with some sophistication, and did so using the APA style that is part of professional communication within psychology. In reviewing our major with this learning outcome in mind, the committee 1) debated the merits of learning APA style, which (at least in its detailed instantiation) is primarily relevant for PhD level researchers; and 2) considered whether other writing and communications skills might also be considered as important for the major, especially skills that would be broader relevance. With respect to 1), faculty noted that there is merit in learning a detailed and demanding set of procedures and citation rules, or indeed, of learning any writing genre at a more fine-grained and demanding level. With respect to 2), faculty noted that while some courses provide experiences with other types of writing (congressional briefing sheets, letters to the editor), this might be an area where our program could be improved. **Our conclusion is that the major is doing a good job in promoting our communication/writing learning goal, but the scope of students’ experiences in communication/writing could be broadened to include more generally relevant communication tasks, including oral presentation**.

 **Ethics and Social Responsibility in a Diverse World**. Ethics and social responsibility issues are quite broad in scope for our field, ranging from ethics regarding treatment of human and animal research participants to ethics regarding scientific integrity to ethics about one’s professional expertise and values regarding diversity, inclusion, and social justice. Most of our courses clearly address material related to a broad range of ethical issues and often assess knowledge of ethical issues via exams (e.g., in Psy 1010, General Psychology and in Psy 3010, Research Methods), , but no required courses include assignments that clearly assess students’ application of ethics content. Some courses, which are not required, carry diversity (DV) designations that signify the course fulfills bachelor’s degree requirements for the University of Utah (e.g, Psy 3040, Psychology of Gender; Psy 3245, Human Sexuality in a World of Diversity; Psy 4450 and 4455,Intergroup Relations: Our Prejudices and Stereotypes, standard and honors sections). These courses are highly subscribed, and clearly incorporate issues of ethical and social responsibility into assignments, but are not taken by all majors. **For this reason, we did not evaluate student assignments for this learning goal, and plan to focus on this learning goal in the coming year, by doing a more comprehensive identification of courses and assignments relevant to this goal and considering ways to expand coverage.**

 **Career/Professional Development.** Career and professional development has long been a concern for our program, and more than 10 years ago, we developed Psy 2010 – Psychology As a Science and Profession to encourage students to consider their future career directions early in the major. Psy 2010 asks students to create a resume, explicitly explore research and career interests within the major, and provides students with extensive information about opportunities for signature experiences within the major. Once students leave this course, their exposure to career/professional development education is dependent on their pursuit of either an internship through Psy 4810, or signature experiences within the context of research experiences, the honors program, and our human factors certificate. In reviewing student work from these two contexts, the committee determined that the program has the potential to do an excellent job promoting students’ career and professional development. However only students who complete additional, non-required experiences are likely to maximize this learning outcome. This is an issue worth further consideration. **Our conclusion is that we need to consider how to encourage more internship and signature experiences where possible, and to consider how to advance this learning outcome for a broader range of students if resources are not available to fully expand signature experiences for all students.**

Results Part 3: Student Perceptions of Learning Outcomes by Category for Spring 2016 and Fall 2016.

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|   | Learning Goal |
|   | Knowledge | Scientific Inquiry/Critical Thinking | Ethical/Social Responsibility in Diverse World | Communication | Career/Professional Development |
| “Backbone” Required of all Majors |   |   |   |   |   |
| Psy 1010 General Psychology | 5.22 | 5.14 | 5.13 | 5.10 | 4.99 |
| Psy 2010Psychology as a Science and Profession | 5.44 | 5.58 | 5.38 | 5.29 | 5.24 |
| Psy 3000 Statistics in Psychology | 5.44 | 5.23 | 5.25 | 4.94 | 4.89 |
| Psy 3010 Research Methods in Psychology | 5.34 | 5.51 | 5.38 | 5.21 | 5.19 |
| Cognitive Core | 5.36 | 5.33 | 5.30 | 5.31 | 5.24 |
| Developmental Core | 5.62 | 5.55 | 5.63 | 5.61 | 5.52 |
| Clinical Core | 5.27 | 5.31 | 5.28 | 5.32 | 5.21 |
| Social Core | 5.11 | 5.27 | 5.19 | 5.00 | 5.11 |
| Behavioral Neuroscience Core | 5.30 | 5.08 | 5.40 | 5.30 | 5.21 |
|  Elective Options |   |   |   |   |   |
| Diversity courses | 5.29 | 5.27 | 5.34 | 5.17 | 5.12 |
| Lower division electives (2000 level) | 5.46 | 5.25 | 5.25 | 5.49 | 5.41 |
| Upper division electives (includes 5000 level) | 5.43 | 4.72 | 5.44 | 5.42 | 5.46 |
| Psy 4810 Internships | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 |
| Psy 4800 Research Experience | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 |

Summary. Students rate individual course contributions to department learning outcomes very highly on average. Ratings do not generally discriminate immensely between different learning outcomes, suggesting that student perceptions reflect a broad sense that a course has furthered their academic development. Three other aspects of the table are worth noting: 1) Signature experiences have quite strong ratings across all learning outcomes; 2) Both upper and lower-division electives are viewed as contributing more strongly to career/professional development than the Psy 2010, Psychology as a Science and Profession course; and 3) Psy 3000, Statistics, although it provides students with a transferable, marketable skill, is not perceived as contributing to career/professional development. These findings underscore the value of “signature experiences” in promoting our departmental learning goals. They also suggest that students are seeing electives as relevant to their professional/career development in ways that instructors don’t perceive (based on syllabus review). Finally, they suggest that Psy 3000, Statistics instructors might close a communication gap by helping students recognize that their course is providing skills that can be of real utility in the workforce.

**Summary and Plan for 2017-2018**

 In sum, the committee concluded 1) that the major is covering all learning outcomes to some extent; 2) that three of our five learning outcomes: writing/communication, ethics and social responsibility in a diverse world, and career/professional development, deserve further consideration as we seek to improve the value of the major for students. Of these, we chose to focus on ethics and career/professional development in the coming year as these were the areas with the greatest need and potential for improvement of our program; we anticipate further consideration of writing/communication learning goals in the 2018-2019 academic year. The beginning of that process will involve sharing these findings with the broader faculty, and engaging in departmental discussion of the results and potential actions that could be taken by faculty.