Expected Outcomes: Scientific Literacy

1) Students will be able to recognize basic psychological concepts on a name recognition task, and 2) students will be able to demonstrate scientific literacy and knowledge for basic psychological concepts on a content measure.

Related typical general education outcomes:

11 Scientific Literacy

Assessment methods

Method: Psychology Print Exposure (PPE) Measure

Extensive data are available on the psychometrics of this measure using undergraduate psychology majors and non-psychology majors at Auburn University. Based on numerous semesters, pretest scores were ~50%, or roughly at chance in a two-choice format without psychology instruction (based on PSYC 2010: Introduction to Psychology administration of this test at beginning of semester). After completing psychology courses, students should be better at a rejecting psychological-sounding, but not ‘real’ psychology terms. The psychology department has a long history of experience with this test, and the test satisfies the academic requirements for standardized test construction.

Findings:

Administration of the PPE to graduating seniors during Fall 2011 (n = 35, response rate: 97%), Spring 2012 (n = 68, response rate: 76%), and Summer 212 2011 (n = 18, response rate: 72%) semesters, indicated that students demonstrated the ability to correctly identify between real and phony psychology terms. Performance means (standard deviations) and range were as follows: Fall 2011: 70.65% (6.97), range 51%-88%; Spring 2012: 76.41% (7.74), range 55%-91%; and Summer 2012: 71.72% (7.42), range 60%-83%. In comparison, we administer the same test during PSYC 2020: Orientation to the Psychology Major course when most students are commencing their psychology curriculum. Students for Fall 2011 and Spring 2012 (n = 237, response rate: 99%) completed the PPE at the end of the semester. Performance for this academic year cohort was as follows: 54.80% (8.51) range 39%-82%.

How did you use findings for improvement?

Because PSYC 2020 is a required course for all psychology majors and students are starting to take this course in their sophomore year, we plan to use the baseline data and compare to graduating seniors performance data in future to demonstrate performance improvements throughout the time course of psychology major. Previously, the majority of students were juniors and seniors in this course, so comparison data would include people with experience with courses in the psychology major curriculum. We plan to continue to monitor performance in PSYC 2020: Orientation to the Psychology Major and then during the semester that students plan to graduate with their bachelor's degree.

Additional comments:

The results of the assessment were shared with the Undergraduate Program Committee and
The Psychology Content Measure was designed by the Undergraduate Program Committee. First, the committee identified the core classes of the undergraduate curriculum that should be included in our assessment effort. Next, we contacted department of psychology faculty who teach the core courses and asked them to provide exemplar terms to be used for undergraduate assessment. Based on the exemplar terms we received from the panel, we generated multiple choice items for statistics and research methods (the only two required content classes beyond PSYC 2010 Introduction to Psychology that all psychology majors must take before advancing to upper level courses. The cohort of graduating seniors

Findings:

Administration of the Psychology Content Measure to graduating seniors during Fall 2011 (n =35, response rate: 97%), Spring 2012 (n =68, response rate: 76 %), and Summer 212 2011 (n =18, response rate: 72%) semesters, indicated that students demonstrated knowledge of statistics and research methods. Performance means (standard deviations) and range were as follows: Fall 2011: 70 % (3.5), range 20%-95%; Spring 2012: 77% (3.0), range 30%-100%; and Summer 2012: 66% (4.0), range 25%-85%.

How did you use findings for improvement?

Although we are able to capture statistical and research methods knowledge, we would like to improve the content measures to reflect more psychology content. Because we have a new curriculum where students take foundational classes in basic and applied psychological science courses, we plan to implement assessment of these content courses. Because the assessment is administered online, we can ask students which courses they have taken in the Department of Psychology and then have them respond to content assessment for psychology courses completed at Auburn University.

Additional comments:

The results of the assessment were shared with the Undergraduate Program Committee and will be shared with departmental faculty.

Method: Exit Survey.

An anonymous exit survey was designed for graduating seniors. The aim of the exit survey was to generate an indirect measure of our undergraduate program goals, determine whether students were involved in research and outreach opportunities, and the number of graduating students pursuing post-baccalaureate education (and indirect measure of students prepared to become future scientists and/or practitioners). Because research and/or outreach opportunities are fundamental to pursue graduate or professional degrees, we wanted to determine whether our students were getting the skills outside of the classroom to prepare them to pursue psychology careers.

Findings:

Graduating seniors during Fall 2011 (n =35, response rate: 97%), Spring 2012 (n =68, response rate: 76 %), and Summer 212 2011 (n =18, response rate: 72%) semesters completed the survey. Goal #1: 94% (FALL), 93% (SPRING), and 70% (SUMMER) “agreed” or “strongly agreed” that completing the psychology major helped them to recognize basic psychological concepts. Goal # 2: 67% (FALL), 88% (SPRING), and 63% (SUMMER) “agreed” or “strongly agreed” that completing the psychology major increased their scientific literacy. Goal #3: 91% (FALL), 97% (SPRING), and 77% (SUMMER) “agreed” or “strongly agreed” that completing the
psychology major increased their critical thinking skills. In terms of taking advantage of research opportunities (to assist with faculty research), 61% (FALL), 75% (SPRING), and 73% (SUMMER) of graduating seniors endorsed “very much” and “somewhat’ responses as “To what extent did you take advantage of research opportunities provided by the department of ps

**How did you use findings for improvement?**

We have implemented a new curriculum for the psychology major that provides more structure to the curriculum by setting basic courses as a requirement for advanced courses, and students select from course options from different content in applied and basic science to ensure that they are getting a well-rounded sample of psychology courses and that they are prepared to pursue future endeavors such as graduate and professional degrees. We expect that implementing this structure will increase scientific literacy for our students. The number of students seeking research and/or outreach opportunities is quite large given the number of majors in psychology, and the department will continue to provide opportunities such that are students can be competitive for future work. The number of students pursuing post-baccalaureate degrees is on par with the average for national universities.

**Additional comments:**

The results of this assessment were shared with the Undergraduate Program Committee and will be shared with departmental faculty.