

# **Advanced Pace: As AP Psychology Gains Interest, It Gains Colleges' Respect**

May 19, 2004

The first Advanced Placement psychology examination was taken by approximately 4,200 high school students in 1992, and that number has since increased dramatically. More than 62,000 students took the test in 2003, and about 73,000 are expected to take it in May 2004. The exam consists of 100 multiple-choice questions to be completed in 70 minutes, followed by two essay questions to be completed in 50 minutes. Students choose from a list of essays on AP exams in some of the other disciplines, but on the psychology test all students are required to answer both essay questions.

## **Test Development**

A committee of three high school and three college psychology teachers develops the AP psychology test. Each committee member has considerable experience teaching a college level introductory psychology course. Having high school and college teachers on the committee helps to ensure that the test adequately covers what is expected to be included in an introductory psychology course at the college level. In addition, high school teachers on the committee act as informed agents who dispense information to other high school teachers involved with AP psychology.

Members of the test development committee also evaluate and update the course description, which is published by the College Board, ensuring that it includes new information in the discipline. For example, I am confident that AP psychology students will soon be expected to know that new neurons can be created in certain regions of the adult brain, as Elizabeth Gould and others have reported. In addition, Educational Testing Service provides two consultants with expertise in psychology, measurement and test construction. Supporting them are many other experts, including statisticians and psychometricians, at ETS and the College Board. My experience with these individuals suggests that they are highly qualified and devoted professionals. They get as excited as the committee members when a question is written well. Staff members at ETS and the College Board staff provide information at committee meetings about reliability, validity and discrimination indicators.

## **Multiple-Choice and Essay Questions**

Committee members write multiple-choice questions that are reviewed each year at meetings in the fall and spring. Members consider each question for relevance, accuracy, difficulty, and comprehensibility with the goal of ensuring that it is clear, fair, and consistent with the course description. Discussions of questions are eye opening. I never realized how many ways a question can be interpreted. Often lively but always cordial, these discussions are conducted in all seriousness, because committee members feel a great sense of responsibility to the thousands of students and teachers involved with AP psychology. There is no groupthink here, and a committee member will occasionally mention a concern or make a comment about a question that results in its being modified or discarded. Before being included on the AP test, a question is evaluated in at least three committee meetings.

Essay questions undergo similarly rigorous evaluation and revision. A preliminary scoring rubric is

written for each essay question. The goal is for each question to be unambiguous and to cover knowledge of important aspects of scientific psychology. Committee members attempt to write questions that could not be answered correctly by students who have not taken AP psychology. One of the primary goals of the course is for students to learn the vocabulary of psychology with an emphasis on understanding and applying each concept or principle. This is one reason why students need to know and be able to apply correct terminology when writing answers to essay questions. Good essay questions require critical analysis, cogent argument, and integration of information from several substantive content areas of introductory psychology. For example, one question asked students to evaluate a hypothetical research study in social psychology that had inherent flaws in its design and in the author's conclusions. Students were asked to identify, explain, and recommend corrections for each flaw and to predict the outcome of the research.

All questions are intended to reflect curriculum guidelines developed by ETS in collaboration with high school and college teachers of introductory psychology. The criterion for deciding if a topic or question is appropriate for inclusion on the test is whether college professors of introductory psychology would typically teach that particular topic or expect their students to answer that particular question.

#### AP Psychology Is a College-level Course

The AP psychology exam is equivalent to a cumulative final exam in a college-level introductory psychology course. All textbooks for the AP course are college textbooks, and AP teachers are urged to use a book published within the last few years. The AP course covers 14 general content areas, and the multiple-choice questions reflect them proportionally. The areas are: History and approaches, research methods, biological bases of behavior, sensation and perception, states of consciousness, learning, cognition, motivation and emotion, developmental psychology, personality, testing and individual differences, abnormal psychology, treatment of psychological disorders, and social psychology. These areas are subdivided into more specific content sections. Multiple-choice questions get progressively more difficult from the first ones on the test to the last ones on the test, and they are not grouped by content.

#### Scoring Students' Essays

The essay section of the test is scored in early June at one site. For the first test in 1992, there were approximately 20 readers, compared with approximately 230 readers in 2003. Persons designated question leaders and table leaders arrive at the reading site before regular readers. Based on information in current textbooks, these first readers formulate a tentative scoring rubric by examining a sample of students' essays. They often discover that students incorporate an approach or idea that is correct but not included in the preliminary rubric. For example, one section of an essay question asked students to describe egocentrism in a pre-operational child, and some students mentioned that a child at this stage would not yet have developed a theory of mind. Question leaders and table readers had not anticipated this idea, so they incorporated it into the final scoring rubric.

#### College Credit

Many colleges and universities give academic credit for AP psychology if students make a certain score, though the exact score varies among institutions. In my opinion, a few colleges do not give credit because the appropriate officials are unfamiliar with the test and the meticulous care with which it is developed and scored. Several years will pass from the time a question is first suggested until it appears on an actual test. In this long and arduous process, all questions are pre-tested on a selected sample of

college students taking introductory psychology. This procedure is designed to make AP psychology equivalent in content and difficulty to college-level introductory psychology courses.

I know a few students who received high scores on the AP exam and were told by representatives of colleges to which they applied that they would not be granted college credit for the course. After department chairs at some of these colleges were provided information about the AP psychology course and exam, students received college credit. One of my students who graduated in 2001 received the top score of five before attending Yale University. She skipped introductory psychology at Yale and took Frank Keil's developmental psychology course as a first-year student, and received an A.

Based on my experience as a teacher of high school psychology, mathematics, and history, as well as a college psychology instructor, I am convinced that college credit should be given to students who make sufficiently high scores on AP exams in all disciplines, including psychology. Colleges and universities can either grant credit toward these students' degrees, permit students to take courses that are more advanced earlier in their college careers, or both. Such policies would encourage students to enroll in AP courses that are more challenging and that provide the foundation for development of salutary academic skills and habits.

#### Personal Perspective

I enjoy teaching AP psychology more than any other course. Where else can one role-play a schizophrenic, a split-brain patient, a dog with learned helplessness in a shuttle box, or an individual with mind-blindness? This is all done with an emphasis on the empirical foundations of psychology and on teaching respect for diversity and individual differences. My AP psychology students are required to think and write on a college level and to learn the difference between anecdotal and scientific evidence. These students are much better prepared to be successful college students, because they have already taken a college-level course with more advanced reading and writing requirements.

My course tests are challenging but fair. If students in my AP psychology class receive a score of 100 on any test during the course, I pay for their junior or senior prom. This has happened twice since I began teaching the course in 1992. Last year a few students maintained high A averages throughout the course, but no student received a score of 100. Five of my best students from last year now attend Brown, Columbia, Massachusetts Institute of Technology, the University of Pennsylvania, and Princeton. Students in my course observe classic demonstrations (e.g., determining the speed of neural impulses, the Pulfrich illusion, and the Dove test). Students are captivated to read and hear about adapting to displaced vision and then to experience it when they put on goggles that displace their own vision.

In addition, I use materials received from the Yale Summer Psychology Program in 1993. Taught by Mahzarin Banaji and directed by Robert Sternberg, this advanced introductory psychology course was taken by some of the top high school students in the country. Sternberg and his colleagues developed analytic, creative, and practical activities for the teaching of psychology that are very useful in my teaching. Perhaps because they are inundated with analytic questions in other courses, my students especially enjoy the creative and practical activities. For example, recent students designed their own fun house that incorporated illusions of motion and depth using the principles of sensation and perception. It is important to note that Sternberg's research concerning triarchic instruction and curriculum has shown that students who employ creative and practical activities and thought process score higher on tests, even if these tests only ask analytic questions.

I was also fortunate to have spent four summers at Texas A&M University as a participant and group leader in Ludy Benjamin's summer workshops for the teaching of psychology. This transformed my teaching, especially in regard to demonstrations that invigorate the course, as these demonstrations link activities the students could perform or participate in with empirical explanations.

#### Helpful Resources

Resources from many organizations enhance my teaching. I especially like the APS publications, *Psychological Science* and *Observer* for short, informative, and interesting articles. Many times I have used the issue celebrating the 100th anniversary of Jean Piaget's birth as a valuable resource. The *Observer's* Teaching Tips column is always useful. Two collections of Teaching Tips have been published, *Lessons Learned: Practical Advice for the Teaching of Psychology* (Volumes 1 and 2). Every instructor of introductory psychology, including the AP course, will benefit from the suggestions, activities, and demonstrations in both books.

*Author's Note:* The author would like to thank Charles Brewer, Jane Halonen, and Ken Keith for their editorial feedback on this article.