

Best Practices: Teaching Introductory Psychology

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Conference Web site: teachpsych.org

Poster Abstracts

Ideas worth Spreading: Using TED.com in Undergraduate Psychology Courses

Michael Amlung

Integrating online content with the college classroom can help make courses more relevant and tailor our teaching to our students' virtual worlds. This is particularly important for the field of psychology where research and prevailing ideas are dynamically changing. This poster will present the results of a multi-semester study investigating the implementation of one such resource, TED.com, in two sections of an undergraduate psychology course. Students participated in a semester-long "virtual conference," in which they viewed a series of short lecture podcasts by prominent psychologists. Students wrote brief commentaries on each lecture that required them to extract the main ideas from the lecture, identify concepts they found particularly interesting or confusing, and critically evaluate the speaker. Students then wrote a reflection paper in which they synthesized the overlapping themes in the lectures. Quantitative data indicated that the conference had a significant impact on student learning while also stimulating critical thinking. Qualitative student feedback was generally positive, with several students commenting that they especially liked that they were able to choose the topics they wanted to learn about. Students also noted that the reflection paper strengthened their ability to make connections between seemingly unrelated topics in psychology. This poster will discuss innovative ways to infuse resources like TED.com into psychology courses, with a particular focus on addressing the unique demands of an introductory psychology course.

The Benefits of In-Class Mastery Quizzing

Dina M. Battaglia

Mastery quizzing involves administering a pre-lecture quiz and a post-lecture quiz with the intent of improving student class attendance, student attention during lecture, and greater retention of information as evidenced by exam scores and final course grade. Previous research on mastery quizzing used one multiple-choice item for each the pre and post lecture quiz (Nevid & Mahon, 2009). Students earned one point or points applied towards their final course grade if they a) participated in both the pre and post lecture quiz and b) answered either one or both quiz items correctly (Nevid & Mahon, 2009). Believing that a one item quiz does not adequately assess the wealth of material presented in a 75-minute lecture, each mastery quiz created for the current research contained at least three multiple-choice items, but no more than six ($M = 5$ items). Students earned one extra credit point if they a) were present to complete the pre-lecture quiz and b) completed the post-lecture quiz in its entirety. Two sections of introduction to psychology students at a small, Midwestern liberal arts college served as participants in the current study ($N = 57$). Both sections were taught by the same instructor who did not deviate teaching techniques

or content across sections. Independent samples t-tests showed no statistically significant difference between the sections on total points earned, $t(55) = -.89, p > .05$, or final course grade, $t(55) = .14, p > .05$. Mastery quizzes were administered in approximately 65% of each section's total class meetings which resulted in 15 mastery quizzes per section. It was predicted that mastery quizzing would be positively correlated with final course grade (before extra credit points were added). As predicted, mastery quizzing was found to positively correlate with final course grade, $r(55) = .66, p < .001$, one-tailed. It was further expected that post-lecture quiz scores would predict grades on respective course exams. While three separate simultaneous multiple regression analyses were conducted to test for the predictive effects of post-lecture quizzing on each of the three respective course exams, none of these analyses yielded significant results. The benefits of mastery quizzing on class attendance, student attention, course exams, and final course grade for introduction to psychology students is discussed in detail as well as the psychological implications this teaching strategy may have for students.

We are the (Memory) Champions: Exploring Memory Strategies in an Introduction to Psychology Course Through a Memory Competition
Brooke Bennett-Day

Introduction to Psychology classes offer the opportunity for faculty members to incorporate many activities within class sessions. These activities serve to increase student attention and facilitate learning (Svinicki & McKeatchie, 2010). One such activity that I have successfully used within an Intro to Psychology course is that of the Memory Championship. Memory Championships involve individuals competing to show that they can memorize the largest amount of information (<http://www.worldmemorychampionship.com/>). Competitors, in videotaped interviews, have noted that they use a variety of memory strategies to store and retrieve the massive amounts of information that are part of the competition (CBS News, 2009). These strategies map onto those that are often taught in psychology courses, including chunking and the method of loci.

Sixteen students in an Introduction to Psychology course (mean age = 20; all women) were introduced to the concept of the Memory Olympics through a number of tasks that were similar to those used in the actual competition. Students took turns administering and competing in activities; after all students had taken a turn with the games, we discussed the ideal memory strategies for different types of materials. At the conclusion of the activity, students completed a questionnaire regarding their experiences. Students provided responses on a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Among the results were that students reported having fun with the activity ($M = 6.0$), but more importantly also agreed that this activity made them more likely to share psychological topics with others outside of class ($M = 5.31$). Further details will be provided as to the post-activity feedback, as well as instructional details on how to include a Memory Olympics in your own Introduction to Psychology course.

The Best Practices for Teaching Research Methods in Introductory Psychology
Diane Byrd & Sonya Shavers

The purpose of the current study was to present material in a manner that would facilitate learning and critical thinking skills. The teaching focus was the distinction between qualitative and quantitative methodology and basic research concepts. Participants were 30 college students ranging from 18-27 years of age. The quasi-experimental a pre-test post-test design was utilized. Participants were given a pre-test on basic concepts in research methods. For the qualitative portion, participants were watched a video clip involving destruction of property and commented on whether the victim should be reimbursed. For the quantitative portion, participants were randomly assigned to groups (misinformation or correct information) and responded to questions about the clip. Afterwards, the research process was explained from start to finish including informed consent, instructions to participants, random assignment and other concepts. Participants were given a post-test. There was a significant difference between pre-test and post-test scores on basic research concepts.

Psychology in the News Helps Facilitate Critical Thinking
Candice S. Faulring

Scientists conduct research in laboratories and publish their findings in scientific journals. The general public hears about this research via the news media. A recent editorial in the journal *Nature immunology* explained the problem that often occurs when the media attempts to communicate scientific research, it stated:

Although these attention-grabbing headlines might help sell papers and increase traffic to newspaper websites, such reporting is irresponsible to the public and to science in general. Even if the article itself is more balanced, it must be remembered that many readers never get much beyond the headline. The net result is the public comes away with much misinformation.” (“Hyping research”, 2009, p. 795)

On a daily basis one can pick up the newspaper, watch the nightly news, or visit an online news site and find a report on scientific research. Since, most of the general public does not read scientific journals we depend on news organizations to help us understand the latest scientific research. But, are news organizations accurately reporting scientific research?

This assignment entitled, “Psych in the News,” requires students enrolled in Psychology 101 to critically analyze and answer this question. Fundamentally, this is an assignment used to teach students the importance of critical thinking.

The goals of this workshop include: 1) a description of the Psych in the News assignment; 2) examples of egregious reviews by journalists of scientific research; 3) a discussion regarding the serious need for faculty teaching introductory courses in psychology to isolate and weave popular press articles into class discussions.

Teaching to Our Purpose: Examination of Lecture Content in Introductory Psychology
*Jana Hackathorn, Amy Garczynski, Natalie Homa, Erin Solomon, Carrie Brown,
Rachel Tennial, & Ursula Sanborn*

Depending on the university or the instructor, the major goal of Introductory Psychology may vary. For some, the goal may be to simply introduce the topic of psychology, while touching upon its major sub-disciplines. For others, the goal may be to prepare students for future courses in the discipline. The goals of students taking an introductory course may also differ, with some students taking the course because of requirement issues, others taking it to determine if they want to major in psychology, and still others taking it to prepare them for future psychology courses (Miller & Gentile, 2009). As instructors, we attempt to keep all these goals in mind, as well as the APA (2006) suggested learning goals, as we teach the course. The current study examined course content of 100 syllabi for Introductory Psychology courses from around the nation. It was thought that introductory psychology courses likely differ dramatically, and that some courses may teach certain material more or less than others, which would have implications for whether the class achieves its intended goals for students, instructors, and the university. While some differences in material were found to be driven by the instructors' subject areas, a significant pattern was found across disciplines. Results indicated that the lowest percentage of lectures included introducing the breadth of psychology (e.g., careers), research methods, or developmental psychology. Conversely, the highest percentage of lectures introduced cognitive or physiological psychology subjects. This significant disproportion in lecture time may indicate that the topics of cognitive and physiological psychology are valued the most in introductory courses, whereas the topics of careers, research methods, and developmental psychology are valued the least. Implications of these results will be discussed.

Research Participation for *Introduction to Psychology* Students
Jeremy Ashton Houska & Rachel Eells

Subject pools provide *Introduction to Psychology* students exposure to the research enterprise. Students earn course credit in exchange for their participation in IRB-approved research conducted by psychology faculty and students. Literature on the value of research participation and student perceptions of their experience has been unflattering (Britton, 1979; Coulter, 1986; Miller, 1981). Other work, however, has suggested that students view research participation positively and such activities indeed provide pedagogical benefits (Landrum & Chastain, 1995; Nimmer & Handelsman, 1992; Rosell et al., 2005). *Introduction to Psychology* students at a small liberal arts college in the Midwestern United States ($N = 52$) completed a questionnaire regarding their attitudes after the implementation of a research requirement. Questionnaire items were Likert-type and open-ended. Results indicated that students were in favor of continuing the research requirement and the experience provided value and educational benefits. Students noted that they gained a greater understanding of the research procedures used in psychological science, and made connections to content discussed in class. Moreover, 69% of students stated that a full letter grade penalty for not meeting the requirement was appropriate. Our findings underscore the utility of research participation requirements for *Introduction to Psychology* students.

Using a Case Study to Teach Depression and Suicide: Elizabeth Shin's Story
Saera Khan

Teaching mental health issues can be a challenge for non-clinical and counseling professors. After introducing mental illness and spending some time on presenting clinical depression, students are assigned a lengthy New York Times article (April 28, 2002) on the suicide of MIT University student, Elizabeth Shin. Elizabeth was a first year student struggling with severe depression and the challenges of adjusting to college. She simultaneously reached out and pushed away friends, professors and the MIT counseling staff. Tragically, she killed herself in the dormitory and the parents sued the school for not disclosing her fragile state to them. Under FERPA laws, MIT was not obligated to disclose her declining mental state to her parents. In 2006, the case was settled and her death was ruled an accident. However, the case helped spur a debate about student vs. parents' rights to privacy in a college setting and the extent to which universities are responsible for the mental health of their students.

101 students first write an essay on whether they would side with the parents or the university in the legal case. They also assemble in small groups and come up with a jury decision as a group. The class exercise has been conducted five separate times and there has never been a unanimous class vote. The small group discussion and ensuing big class discussion leads to a greater understanding of the real life difficulties in treating depression and preventing suicide. This exercise is also used as an opportunity to discuss the existing on and off campus resources are for mental health at our university. Students typically cite this exercise as their favorite class activity.

General Education Assessment in a General Psychology Course
Stuart Korshavn & Raymond M. Zurawski

General Psychology is frequently included among courses that satisfy undergraduate general education program requirements. Because colleges and universities are expected to demonstrate that they are achieving their general education goals, assessment of student learning outcomes in the General Psychology course can help to provide that evidence. At St. Norbert College, it is expected that "Students will be able to apply the major theoretical orientations and/or research methodology (or methodologies) of at least one social/behavioral science to the understanding of social phenomena." This poster presentation describes a psychometric evaluation of 27 multiple-choice test items developed to assess the extent to which students meet this goal. The items are embedded in all final examinations administered across multiple independent sections of General Psychology at the institution. Item difficulty, discrimination, and validity, and the internal consistency of the measure (based on a sample of 111 students, from five recent sections, taught by two different instructors) are summarized and interpreted. Pedagogical strategies to improve student learning in this domain are described, and accompanying changes in performance on the measure over 16 semesters (1,398 students) are documented. Additional uses and applications are discussed, and copies of the measure will be available.

The Benefits of Cumulative Exams in a General Psychology Course
Natalie Kerr Lawrence

Many college teachers require their students to take cumulative exams but there are surprisingly few studies that examine the benefits of such exams. Szpunar, McDermott & Roediger (2007) found that the expectation of a cumulative final exam enhanced long-term retention. However, their research was conducted in a laboratory where participants took the “final exam” 30 minutes after learning word lists. The purpose of this study was to determine whether there are benefits of cumulative exams in an introductory psychology course. Students in one section of General Psychology took cumulative exams throughout the semester; students in another section took three non-cumulative exams followed by a cumulative final exam. As expected, students who took cumulative exams throughout the semester outperformed the other students. The results of a post-test (to be administered this month) will be presented along with those reported above.

Science Come to Life: Using Research to Inform Classroom Pedagogy and Instructional Design
Gabriela A. Martorell

In the 2007-8 academic year, roughly 22 million undergraduates attended an institution of higher learning (Chronicle of Higher Education, 2010). This represents an enormous expenditure of time, money and energy. Unfortunately, however, recent data shows that at the conclusion of a 2-year period, roughly 45 percent of college undergraduates showed no significant advancements in areas such as critical thinking, logical reasoning, and the ability to communicate effectively (Arum & Roska, 2011). These findings are played out against the backdrop of diminishing resources and ever-higher expectations of productivity for faculty. I argue here that the use of evidence-based pedagogical practices can help faculty promote student learning within these constraints. By using teaching techniques grounded within cognitive and educational psychology, we can help students develop these needed skills without adding additional workload for faculty. In this poster, I will develop this argument in more detail and provide specific examples of instructional design issues, assignments and activities that I have used to promote effective student learning.

Teaching Introductory Psychology “Backwards”
Daniel Motta & Jordan Wagge

Best practices are those techniques that are described as “what works” in a given educational situation or setting. More often than not they are specific activities, models of instruction, or specific behaviors. Backward design is an evidence-based best practice for something a little different, designing a course curriculum. Traditional curriculum design centers on the textbook as a curricular guide, creating lessons for that content, and then deciding what the students should “know” on some assessment. Backward design takes a different approach geared toward enduring understanding not just knowledge. Backward design starts by identifying the enduring understandings and essential questions of the content which can then be used for creating assessments, and then serves as a guide in the creation of day-to-day lessons, activities, and instruction. Backward design is then geared at differentiating between what a student “knows” and what they actually understand about content allowing for scaffolding of knowledge and skills to develop greater depths of understanding. In attempting to improve the teaching of

introductory psychology, in this presentation backward design is used to set curricular priorities and enduring understandings, design assessments to measure those understandings, and create learning activities that could be universally used in teaching introductory psychology. A presentation of the curriculum, how it is employed, and exemplars of assessments and activities will be available.

Do Positive Messages on Exams Help or Hinder Exam Performance?

Karen Z. Naufel, Heather Lambros, & Rebecca G. Ryan

Positive thoughts can influence test scores. For instance, students who remembered a past academic success were more apt to overcome test anxiety, and perform better on a quiz, than students who did not recollect such an experience (Nelson & Knight, 2010). The present study built upon this existing research by examining if instructor-placed positive messages on tests could bolster student performance on exams. Students in a large Introduction to Psychology course took a regularly scheduled exam. Half of students had the positive affirmations, “You can do it!” and “Keep up the good work!” typed on every page of their tests; the other half had no message on their tests. Interestingly, students that had positive affirmations performed *worse* on the exam than those who did not have the messages when controlling for previous exam scores. The results suggest that positive thoughts can play an integral part in test performance, but the role they play may not always yield positive outcomes.

Service Learning Enhances Scientific Literacy of Introductory Psychology Students

Tara Schmidt

Twenty-five students were enrolled in a service learning section of Introductory Psychology during the Fall of 2010. The course met four hours per week, with one of those hours dedicated to the service learning project. Through a partnership with Curative Care Network's (CCN's) Senior Care Center for older adults, students led three different activities targeted to the seniors' cognitive ability. These activities were developed by the staff at CCN, who trained and supervised the students. In the "Mindbenders" activity, high functioning seniors worked on mind puzzles and word games. During the "Storytellers" activity, seniors generated stories as a group about photographs brought in by the students, which encouraged social interaction. "Mary's Moments", named after the CCN team member who developed the activity, was designed to help those seniors with more advanced dementia connect with the environment through their senses. Students in the course were split into two cohorts, with each group leading activities at CCN on alternating weeks. After each session at CCN, students posted observations about their experiences on a discussion board. These observations led to research questions which they investigated during the weeks they were not at CCN. Some of these topics included the effect of experience and emotions on learning, the value of unconditional positive regard, conformity, and the value of human contact, among many others. Comparisons of a survey completed by the service learning class to Introductory Psychology sections without this component revealed that the service learning students were more confident in the area of scientific literacy. They reported significantly higher abilities to distinguish between empirical and non-empirical articles, and to find empirical articles to answer a research question. Students were also personally impacted by the service learning experience. One student wrote a letter saying, "... I think that this service learning class was the best thing that I have ever done as part of a class... I cannot thank you

enough for leading us through this service learning. I will forever be affected (positively) by this experience."

Enhancing Active Learning in Lecture-Oriented Introductory Psychology Classes

James H. Thomas

As a part of its recent re-accreditation, NKU adopted as its Quality Enhancement Program (QEP) the goal of increasing active learning in general education courses. This poster describes three practices designed to address the difficult task of enhancing active learning in large, lecture-oriented classes like introductory psychology. Results of student feedback from a summer section of Psy 100 that incorporated the practices are included.

Testing – The course included six tests, all comprised of multiple-choice items drawn from the text. In order to make the test days an active learning experience, students took each test twice. The second attempt immediately followed the first and students were allowed to use the text and their notes. They earned extra credit points if they scored higher on their second attempt. Results from the student feedback questionnaire given at the end of the term showed that 88% agreed with the statement "Taking the tests again using the book allowed me to learn things I didn't get the first time."

Lectures – Some of the lecture material was covered in the text, but much of it was not, as an attempt was made to incorporate research on new and especially relevant topics. To encourage students to attend class and concentrate on the material, quiz items were integrated into the lectures and students responded using the "i-clicker" student response system. Scores on these items made up 30% of a student's final grade. On the feedback questionnaire, 92% of the students agreed with the statement "Using the "clicker" questions helped me to focus my attention on the lectures."

Tutorials – PsychSim 5 is a workbook and CDR that consist of "interactive graphic simulation and demonstration activities for psychology". In order to provide a more "hands-on" learning experience, students were required to complete 30 selected "tutorials", five associated with each test, and turn in the associated workbook pages. This assignment accounted for about 13% of a student's grade. Student feedback indicated that 72% agreed with the statement "When completing the tutorials and workbook pages I learned more about psychology."

In sum, while none of these practices are especially revolutionary, using them together allowed a large, lecture-oriented class to become more of an active learning experience for students.

Embedding Research Methods Throughout Introduction to Psychology

Katie Townsend-Merino

Most colleges have 3 – 4 course-level student learning outcomes that emphasize the importance of a students' ability to fully understand and use the scientific method in relationship to psychology. Examples from seven colleges include:

- ✓ Explain why psychology is a science and not a pseudoscience.
- ✓ Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation
- ✓ Demonstrate an understanding of the scientific method.
- ✓ Differentiate, explain, and evaluate the basic methodologies used in psychological research.
- ✓ Use a critical analysis of the scientific method as a basis for evaluating psychological information
- ✓ Differentiate and examine methods of research used in psychology.

While faculty view these SLOs as overarching, and don't expect their students to demonstrate competence until the end of the semester, most faculty only specifically discuss methodology solely during the first week of class and are surprised when their students do poorly on their end of term outcome assessments in this area. Introductory Psychology is necessarily a content intensive course and most faculty do not feel they have the time to further cover methods during subsequent weeks. In an effort to improve student learning regarding research methods in psychology and to create passion for psychological research, a partially online model, using any learning management system, is offered that provides students opportunities each week to collaboratively read and evaluate recent original research articles that directly relate to each chapter. This model is designed to take very little extra class time to implement and to reduce time spent grading. Sample articles and rubrics will be provided. In addition to increasing learning about methods, students report that this set of assignments has reduced the intimidation they feel at reading original research, increased their interest in research and increased their ability to carefully read text.

Using the 24/7 Review Technique in Introductory Psychology Courses

Jennifer C. Wong & Denise P. Domizi

Undergraduate courses are often lecture-based; however, it may be difficult for all students to learn in this manner. Students may benefit from a more active approach to learning. The "24/7" was developed by Fenwick Jr., Norris, Dalton, and Krehling (2010) as an exam review technique, and was adapted for use as an active learning strategy (ALS) in Introductory Psychology courses. The 24/7 technique requires a student to summarize a lecture or any given topic in 24 words, and then further summarize the lecture in 7 words. Participants were undergraduate students (N = 50) enrolled in an Introductory Psychology or Introductory Educational Psychology course. Feedback was obtained from all students, including questions regarding the effectiveness of the 24/7 strategy (measured on a five-point Likert scale with five being Strongly Agree). Results indicated that this 24/7 review method could easily be incorporated into any discipline, and results showed that 60% of students felt like they did benefit (mean rating of effectiveness 3.52 ± 1.03) from this alternative learning strategy.