## **Psychology**

The following is a list of resources compiled by UROP that relate to psychology undergraduate research or mentoring topics. While this is not an exhaustive list of resources available regarding undergraduate research, as class activity or as independent study, they give a variety of different perspectives and different reference materials, journals, websites, etc. that pertain to psychology undergraduate research that may be of interest. They are available from the UROP library, GT Library, or on-line. UROP library materials can be checked out by coming to the UROP office. Please contact <a href="UROP">UROP</a> for availability. If you have any suggestions for other pertinent references that you have found valuable, please let us know.

\* Ball, Christopher T., and Pelco, Lynn E. "Teaching Research Methods to Undergraduate Psychology Students Using an Active Cooperative Learning Approach." <u>International Journal of</u> Teaching and Learning in Higher Education Vol. 17 Iss. 2 (2006): pp. 147-154.

Many undergraduate degree programs require students to develop a basic understanding of research methodology. Unfortunately, methods courses are typically unpopular with students because the course material is complex and technical in nature. Consequently, some instructors supplement traditional lecture-text classes with active learning experiences such as a student-developed research project. This paper describes a research methods course in the social sciences (psychology) based solely on multiple student-developed research projects. The paper highlights the strengths and weaknesses of this non-traditional approach to teaching research methods.

http://www.isetl.org/ijtlhe/pdf/IJTLHE38.pdf

\* Bates, Scott C., Rodriguez, Melanie Domenech, and Drysdale, Michael J. "Supporting and Encouraging Behavioral Research among Distance Education Students." Council on Undergraduate Research Quarterly Vol. 28 Iss. 1 (2007): pp. 18-22.

The number of programs and the parallel growth in student enrollment suggests that the time is right for an in-depth examination of the quality and content of distance education courses and programs. This paper focuses specifically on the quality and content of a research methods course in the social sciences. We will examine the pedagogical needs of the research methods course, the barriers or challenges in implementing some of these in a distance education context, and some recommendations generated after a pilot research methods course was delivered through WebCT.

http://www.cur.org/Quarterly/Sept07/Fall07Bates.pdf

\* Buskist, William, Beins, Bernard C., and Hevern, Vincent W., eds. <u>Preparing the New Psychology</u> <u>Professoriate: Helping Graduate Students Become Competent Teachers</u>. Syracuse, NY: Society for the Teaching of Psychology, 2004.

Series of 31 chapters written by individuals in the psychology teaching profession with sections on general introduction, models of teacher training, successful job applicants: what academic departments seek in new assistant professors, making the transition from grad student to assistant professor, and a selected bibliography of books to enhance teaching life.

http://teachpsych.org/resources/e-books/pnpp/index\_pnpp.php

\* Cooley, Eileen L, Garcia, Amber L, and Hughes, Jennifer L. **Undergraduate Research in Psychology at Liberal Arts Colleges: Reflections on Mutual Benefits for Faculty and Students**. North American Journal of Psychology Vol. 10 Iss. 3 (2008): pp. 463-472.

Expectations for undergraduate research are increasing at many liberal arts colleges and faculty-student collaboration is increasingly encouraged. Faculty investment is more likely when faculty research goals also are facilitated. To simultaneously meet faculty scholarship goals and student learning needs, we reviewed five standard options: in-class projects, research-based classes, paid assistants, research volunteers, and the honor's thesis, examining how each can enhance faculty productivity along with student learning. Specific examples demonstrate how undergraduate research goals and faculty development can be simultaneously encouraged. Results from on-line surveys of undergraduate psychology majors (n = 81) and psychology faculty (n = 21) indicate that students and faculty share favorable opinions of each of these options. Thus student-faculty research may provide mutual benefits.

http://www.library.gatech.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=35883343&site=ehost-live

\* Coppola, Brian P. "Full Human Presence: A Guidepost to Mentoring Undergraduate Science Students." New Directions for Teaching and Learning Vol. 2001 Iss. 85 (2001): pp. 57-73.

Mentoring represents a new mode of professional development for the sciences. Mentoring in the sciences can also assure that the next generation of scholars will help break the cycle of perpetuating a narrow, and increasingly untenable, definition of education. Various examples of mentoring are presented.

http://www3.interscience.wiley.com.www.library.gatech.edu:2048/journal/89016483/issue

\* Enerson, Diane M. "Mentoring as Metaphor: An Opportunity for Innovation and Renewal." New Directions for Teaching and Learning Vol. 2001 Iss. 85 (2001): pp. 7-13.

Mentoring can be a useful metaphor for teaching because it derives its reference from the academy and focuses more on the learner and positive outcomes. Examining teaching within this context allows for a different analysis of teaching and the learning process and provides the opportunity for both renewal and change.

http://www3.interscience.wiley.com.www.library.gatech.edu:2048/journal/89016483/issue

\* Forrest, Krista D., Stastny, Bradley J., and Bruns, Jennifer A. "Supervising Undergraduate Students in a Faculty Driven Research Program." <u>Developing, Promoting, & Sustaining the Undergraduate Research Experience in Psychology</u>. Eds. Richard L. Miller, et al. Syracuse, NY: Society for the Teaching of Psychology, 2008. 224-229.

Can you teach and conduct research in your field of interest? Have you ever wanted to have nationally or internationally recognized research? It is possible at a small college or university if you take advantage of your most valuable asset, the student research assistant. This chapter has three goals. First we will address the major differences between faculty driven and student driven research programs including the conditions under which faculty driven programs are better suited. Second, we will discuss the benefits and costs to a faculty driven program for both professors and students. Finally, we will present some practical advice for the implementation of faculty driven programs, using current programs as examples. While from a Psychology Society published book, this is general enough to be relevant to all fields.

http://teachpsych.org/resources/e-books/ur2008/5-4%20Forrest.pdf

\* Gant, Gary D., Dillon, Michael J., and Malott, Richard W. "A Behavioral System for Supervising Undergraduate Research." Teaching of Psychology Vol. 7 Iss. 2 (1980): pp. 89-92.

Most of us, including students, often have trouble completing long-term research projects because rewards may be weak or infrequent, deadlines absent, and other more immediately pressing activities intrude. To overcome such difficulties, we designed a behavioral research supervisory system for undergraduate students based in part on a supervisory system for students conducting master's thesis research. (Dillon, Kent, & Malott, in press). This supervisory system for undergraduate research had four basic features: 1. Written descriptions of required tasks, criteria for task completion, and systems procedures. 2. Deadlines for completion of required tasks. 3. Rewards and aversives for completing and not completing required tasks. 4. Weekly meetings between each undergraduate student and a graduate supervisor. The goal of this supervisory system was to ensure that undergraduate students steadily performed all activities needed for completing research projects. This study also experimentally examined effects on the percentages of specified research tasks completed and not completed by the students after announcements that letters of recommendation would either include or not include performance records.

http://www.informaworld.com.www.library.gatech.edu:2048/smpp/content~content=a788623576~db=all

\* Luyben, Paul D. "Field Studies in Applied Behavior Analysis and Direct Instruction." Council on Undergraduate Research Quarterly Vol. 26 Iss. 2 (2005): pp. 66-68.

This article describes several field-based learning opportunities that the author provides to students at SUNY Cortland. The author offers opportunities to conduct community service learning projects with the HotShotReaders program in which college students use Direct Instruction programs in the schools as well as with a field study in applied behavior analysis where students employ behavioral principles and methods to improve the lives of people with disabilities. He recently added two more field experience options: an opportunity for superior students to do an observational study of behavior in the natural environment and for a few students to work intensively with children with autism in an integrated preschool program. The author describes how he organizes and coordinates these.

Available From: UROP Office

\* McKenna, Maria W., Finn, Paul E., and Ossoff, Elizabeth P. "Evaluation of Process and Outcome of Active Learning: The Undergraduate Research Experience." Eye on Psi Chi Vol. 9 Iss. 2 (2005): pp. 30-32, 41.

Our focus is on the use of a senior research thesis and the role of the faculty member in guiding the student research experience. As a valuable method for assessing the skills specific to critical thinking, learning and reasoning, the thesis is also important in developing research methods and statistical skills which lie at the core of education in psychology. We discuss practical suggestions for the effective implementation and use of an undergraduate research requirement as one method to assess active learning in psychology.

http://www.psichi.org/Pubs/Articles/Article 476.aspx

\* Miller, Richard L., et al., eds. <u>Developing, Promoting, & Sustaining the Undergraduate Research</u> <u>Experience in Psychology</u>. Syracuse, NY: Society for the Teaching of Psychology, 2008.

Highly Recommended! As the surge in undergraduate research has occurred, it is clear that there are many different models for conducting research with undergraduate students. The purpose of this book is to provide a comprehensive overview of the many ways to conduct undergraduate research in psychology with practical suggestions and models for how one can both develop and enhance a research program that involves undergraduate students. The book is divided into seven sections with several essays addressing a different aspect of the undergraduate research experience:

Institutionalizing Undergraduate Student Research

Successful Models of Undergraduate Research

Conducting Undergraduate Research

**Special Types of Research Opportunities for Undergraduates** special research situations (exs zoos, national parks, forensic hospital, autistic children's program). and how students and faculty can use these **Faculty/Student Roles** 

**Sharing the Results of Research** 

**Assessment and Evaluation of Undergraduate Student Research** 

\* Schraw, Gregory, Wadkins, Theresa, and Olafson, Lori. "Doing the Things We Do: A Grounded Theory of Academic Procrastination." <u>Journal of Educational Psychology</u> Vol. 99 lss. 1 (2007): pp. 12-25.

The authors conducted a grounded theory study of academic procrastination to explore adaptive and maladaptive aspects of procrastination and to help guide future empirical research. They discuss previous research on the definition and dimensionality of procrastination and describe the study in which interview data were collected in 4 stages, identifying 33 initial categories and 29 macrothemes. Findings were validated by member checks. The authors describe in detail informants' perceptions of procrastination, which were used to construct a 5-component paradigm model that includes adaptive (i.e., cognitive efficiency, peak experience) and maladaptive (i.e., fear of failure, postponement) dimensions of procrastination. These dimensions, in turn, are related to conditions that affect the amount and type of procrastination, as well as cognitive (i.e., prioritizing, optimization) and affective (i.e., reframing, self-handicapping) coping mechanisms. The authors propose 6 general principles and relate them and the paradigm model to previous research. Limitations of the research are discussed, as well as implications for future theory development and validation.

http://www.library.gatech.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=pdh&AN=edu-99-1-12&site=ehost-live

\* Stephens, Benjamin R. "Laptops in Psychology: Conducting Flexible in-Class Research and Writing Laboratories." New Directions for Teaching and Learning Vol. 2005 Iss. 101 (2005): pp. 15-26.

This chapter describes an undergraduate psychology research methods course in which laptops facilitated online organization, electronic portfolios, and flexible laboratories to improve student engagement, capability, and understanding. This chapter details how laptops were used to enhance a required Research Methods course in psychology. One set of enhancements was organizational. Students actively organized information, materials, and assignments on the course Web site during class. They also used laptops to facilitate organizing and constructing digital portfolios during brief class sessions for updating and revision. Laptops also allowed integration and flexible scheduling of in-class research and report-writing laboratories during class and lab meetings. Student understanding and engagement seemed enhanced by these laptop activities, and instructor-student interaction markedly increased throughout all phases of the experience. With modification, these laptop-based methods transferred well into a pilot module for an Introductory Psychology laboratory course. No doubt they can be applied more broadly to enrich courses with flexible research and communication activities. Here, the author first describes the Research Methods course that he taught without laptops for nearly twenty years, with all its shortcomings. Next he shares his observations on how introducing laptops enhanced the course organization, research activities, and writing activities. Finally, he explains how these techniques will be extended to new required freshman and senior courses in the coming year.

http://www3.interscience.wiley.com.www.library.gatech.edu:2048/journal/110433473/abstract

\* Wadkins, Theresa, and Miller, Richard L. "Bending Twigs: The Act of Mentoring Undergraduate Student Research." Developing, Promoting, & Sustaining the Undergraduate Research Experience in Psychology. Eds. Richard L. Miller, et al. Syracuse, NY: Society for the Teaching of Psychology, 2008. 209-214.

This is an article that briefly covers important mentoring topics that typically new mentors struggle with. Topics include important mentor characteristics, expectations of the mentor and the student, and various challenges of mentoring: selecting students, managing efforts, choosing research topics, research ethics, and handling disappointment. While published in a psychology journal, this article is relevant for all faculty mentors in all research disciplines.

http://teachpsych.org/resources/e-books/ur2008/5-1%20Wadkins%20&%20Miller.pdf

\* Webster, Sandra K., et al. "Multi-Level Integration of Student Research in a Psychology/Neuroscience Curriculum." Council on Undergraduate Research Quarterly Vol. 26 Iss. 3 (2006): pp. 133-139.

Students learn science best by doing science. The faculty members in our department stress the value of research by creating a curriculum that involves students at all levels. The curriculum is composed of a set of sequenced "core" courses that feature student research. In addition, students propose, conduct and report their own research projects in a number of the elective courses. Specific examples of both core and elective courses will be described in this paper. Then a "case" that shows the benefit of the set of research experiences over time for neuroscience students will be presented. Outcomes assessment and faculty engagement issues will follow.

http://www.cur.org/Quarterly/Mar06/Mar06Webster.pdf