

## Resource Guide

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### **Undergraduate Participation in Research: A High-Impact Practice**

Undergraduate involvement in research has been identified by the Association of American Colleges and Universities as a “high-impact practice.” High impact practices, as outlined by Kuh (2008), are core teaching practices that increase student retention and engagement. Kuh recommends students take part in at least two of these practices, ideally at least one early in their undergraduate education and then at least one more at the end of their studies. For research-driven fields, undergraduate involvement in research represents an opportunity for students to participate in the actual act of generating field-specific knowledge. Some information about challenges and benefits of engaging undergraduate students in research are found below, with further resources listed if you wish to learn more.

- **Increased likelihood of attending graduate school**
  - Students who were involved in undergraduate research attended graduate school at a much higher rate than those who did not. While this may have been a result of those students’ efforts to reach graduate school, participation in undergraduate research also led to higher rates of using faculty members for letters of recommendation for non-graduate school employment and keeping in touch with faculty after graduation.
- **Universal benefits for students, including those not pursuing graduate study**
  - Citing data from participants in summer undergraduate research experiences, David Lopatto (2010) noted that many students reported gains in tolerance for dealing with obstacles, self-confidence, written and oral communication, and teamwork. Entering the work force, students who have participated in undergraduate research will be able to draw on these increased capabilities, and the confidence that comes with them, in order to be more successful after graduating.
- **Challenges in engaging students in undergraduate research**
  - Researchers in Northern Arizona University’s psychology department identified five factors that students reported as inhibiting their participation in undergraduate research: lack of student awareness, poor curricular timing, unequal student access, unequal access/incentive for faculty, and lack of publicity for previous student success. To address these short-comings, formalized information for students was created, including an application process helping them get started in undergraduate research. A newsletter was also introduced to showcase student success in research. Slight shifts in how undergraduate research opportunities were presented led to a large increase in student involvement (Wayment & Dickson, 2008).

## Resources

Hathaway, R. S., Nagda, B. A., & Gregerman, S. R. (2002). The relationship of undergraduate research participation to graduate and professional education pursuit: an empirical study. *Journal of College Student Development, 43*(5), 614-631.

Kuh, G.(2008). High-impact educational practices: What they are, who has access to them, and why they matter. Washington, DC: Association of American Colleges and Universities

Lopatto, D. (2010). Undergraduate research as a high-impact student experience. *Peer Review, 12*(2), 27-30.

Wayment, H. A., & Dickson, K. L. (2008). Increasing student participation in undergraduate research benefits students, faculty, and department. *Teaching of Psychology, 35*(3), 194-197.

*For more information or to discuss how you might incorporate these ideas into your courses, contact the Reinert Center at [ctl@slu.edu](mailto:ctl@slu.edu).*