When I began my stint as editor of the Psi Chi Journal of Undergraduate Research (PCJUR), I wrote an editorial (Smith, 2009) in which I laid out my philosophy and my reasons for working with PCJUR. I noted that I was supported and encouraged to engage in research as an undergraduate and graduate student. I also noted that I carried this support over to my teaching, and that I believed that students benefited greatly from engaging in research. In this parting editorial, I want to provide some support for that statement about students benefitting from the research process.

I am not alone in the belief that research experience is important for students. Kiernesky (2005) surveyed 355 small psychology departments about the opportunities students had for research. He found that 95% of the departments reported that they had students who engaged in research—almost equally divided between a free elective and a requirement of the major. The most frequently reported source of ideas for student research was that “Students choose their own ideas to research with help from the faculty member” (p. 86), so students were primarily engaging in original research based on their ideas and interests. Perlman and McCann (2005) conducted a national survey of psychology curricula to assess the opportunities that students had for research. They studied catalogs of 500 colleges and received survey responses from 203 of those schools. They found, on average, that schools offered nearly seven courses with research opportunities for undergraduates. Further, 98% of schools offered at least one such course; 79% required such a course. Thus, research experiences for students are widely available, which indicates that psychology faculty believe in their importance.

There are numerous claims in the literature that students benefit from their research experiences. One of the standard benefits touted for undergraduate research experiences is higher acceptance rates for graduate study (Collins, 2001; Purdy, Reinehr, & Swartz, 1989). Many students are probably aware of this benefit—in fact, it may motivate many of them to pursue research experience. Not surprisingly, students report that undergraduate research improved their general research skills and professional socialization skills (Buddie & Collins, 2011). For example, in the first category, Landrum and Nelsen (2002) found that students believed that they better understood the research process and the ethics of research, as well as developing skills at generating research ideas, searching the literature, engaging in data collection and analysis, and delivering presentations. In the second category, Thiry and Laursen (2009) found that students reported feeling that they had been initiated into the world of a scientist, had experienced academic and professional socialization, and had acquired skills and knowledge necessary for scientists.

However, faculty members know that only a minority of psychology majors go on to graduate school. What about the majority of psychology majors? Can they also benefit from engaging in research? The answer to this question also appears to be yes, based primarily on self-report studies. For example, students and faculty mentors report that students show improvements in thinking analytically and logically, critical thinking, writing, and time management (e.g., Landrum & Nelsen, 2002; Thiry & Laursen, 2009), as well as in problem solving (Seymour, Hunter, Laursen, & Deantonio, 2004).

Research shows that students also have positive reactions to their research experiences. Lopatto (2004) surveyed students who had participated
in research as undergraduates. An overwhelming majority of the students (almost 90%) responded that the research experience had met or surpassed their expectations. Page, Abramson, and Jacobs-Lawson (2004) found even higher endorsement, as 95% of the students they surveyed indicated they had gotten what they wanted out of the undergraduate research program. Perhaps even more positively, over 92% of the students in Lopatto’s study indicated that they would be likely or very likely to pursue another research experience.

Although the findings of these various surveys of undergraduate research experience are all positive, they are self-report surveys and, thus, could suffer from bias on the part of the respondents. Conducting actual experimental research to assess the benefits of research experience would be difficult if not impossible. Bauer and Bennett (2003) conducted a study that, although based on self-reports, allowed for a comparison between groups. They surveyed 418 graduates of the Undergraduate Research Program (URP) at the University of Delaware (UD) and 355 alumni who had no research experience. The alumni responded to a 4-page survey about their undergraduate experiences. One question concerned skills and abilities that the alumni believed were enhanced by their undergraduate experiences. Alumni who had gone through the URP experience rated themselves significantly higher on speaking effectively, acquiring information on their own, acting as a leader, understanding scientific findings, carrying out research, analyzing literature critically, possessing clear career goals, and developing intellectual curiosity when compared to alumni without research experience. When Bauer and Bennett conducted a factor analysis of the 32 skill items, they found four groupings of skill factors: science/math/logic/problem solving, literature/language/mastery of contexts, personal initiative/communication, and personal/social skills. The alumni with research experience scored higher than the alumni without research experience on all of the factors except personal/social skills. Also, 80% of the URP alumni reported attending graduate school compared to only 59% of the alumni without research experience. Finally, the URP alumni reported higher overall satisfaction with their undergraduate experience than the alumni without research experience.

Although Bauer and Bennett (2003) also used student self-reports, they were able to make comparisons between students with and without research experience. All comparisons that were significant favored the students who gained research experience as undergraduates.

Although I doubt that readers of this journal need much convincing, I have made a brief case as to why research is important for undergraduate students. Faculty believe that many benefits accrue, which is reflected in the widespread offering and requirement of research courses in the psychology curriculum. Both student and faculty mentors report that students benefit in many ways by engaging in research, such as increasing critical thinking skills. Finally, a direct comparison study (Bauer & Bennett, 2003) has shown that students who engaged in research reported several significantly higher outcomes of their undergraduate experience than students who did not engage in research projects. For all of these reasons, Psi Chi is providing this outlet for students to showcase their research efforts. I encourage you to take full advantage of any research opportunities that your school may offer!

References


