



Practicing Mentorship: Graduate Supervision of Undergraduate Research

Olivia K. Lima, Amanda C. G. Hege, J. Patrick Seder, & Dennis R. Proffitt

Abstract

Many research universities rely on graduate students to supervise undergraduate research assistants (RAs) who collect data and handle research logistics. This experience can be mutually beneficial, as RAs receive hands-on learning, and graduate students practice mentorship in preparation for assuming a faculty role. However, assistantships must be intentionally designed to meet educational (not just practical/data collection) goals. In the first survey, undergraduate RAs reported on satisfaction, educational benefit, and desired changes. In a second survey, graduate students reported on their goals, challenges, and the support they receive in their duties as mentor to undergraduate RAs.

Background

The benefits of undergraduate involvement in research have long been touted, and are now beginning to be documented through rigorous research (see Kardash, 2000, and Seymour, Hunter, Laursen & Deantoni, 2004, for a review). However, less is known about the specific elements of RA programs which make them educationally valuable. The inclusion of meaningful tasks and the importance of a good mentoring relationship has been suggested (Swager, 1997).

Participants

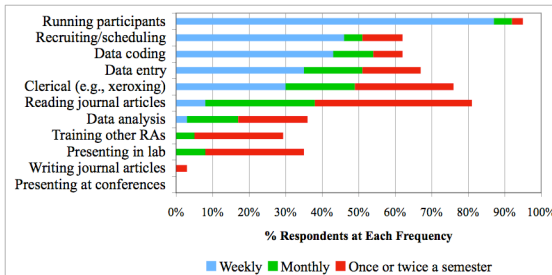
In the first survey, 38 UVA undergraduates from clinical, social, developmental, cognitive, and neuropsychology labs responded. RAs worked on average 9 hours weekly for course credit; 91% were female, and 88% were juniors or seniors.

In the second survey, 26 UVA graduate students from the same areas responded. Most (84%) had been in graduate school for at least 3 years, and supervised RAs (81% - 68% of these since their first year).

This poster was presented at the 30th Annual National Institute on the Teaching of Psychology: Jan. 3-6, 2008 (St. Petersburg, FL). It is available online, with contact information, at <http://ok-lima.blogspot.com>.

Undergraduate Activity

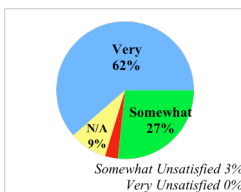
Time Spent on Different Research Activities



When asked what changes would make their experience more educational, 61% of RAs requested more exposure to data analysis, and 41% were interested in spending more time reading the psychology literature. As the graph shows, such activities are now rare, though 57% of RAs who did data analysis found it "extremely" or "very" educational", as did 57% of those who read articles.

Mentoring Relationship

Satisfaction with the quality of mentorship



Most RAs had graduate student mentors, and were generally satisfied with the mentorship they received: 85% of RAs who met with graduate students (either individually or in groups) found this "very" or "extremely" educational.

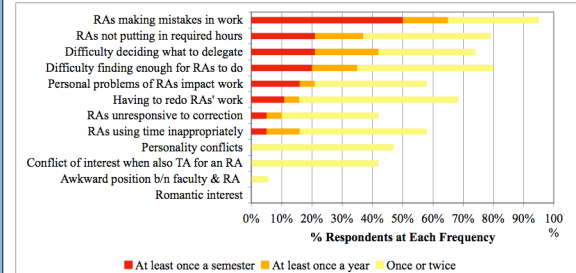
Even so, 52% of Ras requested to spend more time discussing theory, and 62% of RAs wanted more discussion on the topic of graduate school. (97% of RAs surveyed intended a graduate career, but only 58% were "definitely sure" of that decision.)

Sample Survey Comment:

"I have worked as an RA in three areas of Psychology: social, developmental, and clinical. I have learned the most from being an RA in the clinical lab because of the weekly lab meetings and discussion of relevant literature. It makes the little tasks that I do more meaningful (even if it does involve a more significant amount of time)." -Senior RA

Graduate Perceptions

Problems Graduate Mentors Face



Graduate students report seeking multiple sources of support for these problems. At least once a year, 63% consult other graduate students, and 42% consult their advisor (74% tackle these problems alone). Most respondents (90%) said it was "very important" to them to be a good mentor; however, none of the students surveyed had received formal training (e.g., a course or workshop) in preparation for the role. A majority (55%) said they did not receive training of any kind; 45% were given written material and 35% had a "how-to" talk with their advisor.

Conclusions

The undergraduate research assistants surveyed were generally satisfied with their experience, but expressed desire for more opportunities for advanced activities, such as data analysis and reading journal articles. Graduate students reported that they received little training for the challenging role of mentor, and mostly resolved problems by consulting with other grad students. Overall, results suggest that greater formal support from faculty might help the RA experience reach its full educational potential, for both undergraduates and graduate student mentors.