

# Why Teaching Professional Development for Graduate Teaching Assistants (GTAs) Should be a Priority at Every University



Biology Teaching Assistant Project

*The Biology Teaching Assistant Project (BioTAP) is a research coordination network funded by the National Science Foundation (DBI 1539903) to empower universities to use research to improve the quality of graduate student teaching*

## **Providing high-quality teaching professional development to graduate students is essential to the quality of undergraduate education at colleges and universities.**

***Biology GTAs play critical instructional roles in introductory science courses.*** Increasing the retention of undergraduate science majors is enhanced by increasing the quality of teaching in science classrooms. Teaching quality is particularly important in introductory science major courses, where many students decide whether they will continue in the degree program. These science lecture courses are often paired with smaller labs/recitations, the majority of which GTAs teach. By consequence, GTAs often have more frequent face-to-face contact with first-year science majors than science faculty.

***Improving the teaching practices of GTAs can impact thousands of undergraduates.*** Faculty / staff who lead departmental teaching professional development (TPD) mentor an average of 22.5 GTAs per semester/quarter; each of these GTAs teaches an average of 43 undergraduate students (unpublished BioTAP network survey). A commitment to improve GTA TPD at 100 institutions would impact 2,250 GTAs and almost 100,000 undergraduate students each semester / quarter.

***Biology GTAs are provided little TPD to support their teaching.*** The quality of current and future university teaching can be improved via TPD for future faculty such as GTAs. Graduate students are increasingly interested in teaching-focused academic positions, yet, support, training, and/or continuous mentoring for teaching is often not a priority in graduate programs.

## **Institutional change is needed to support GTA TPD**

***There are several institutional barriers to improving biology GTA TPD.*** Faculty and staff who implement GTA TPD often work in isolation on these programs. A lack of research on GTA TPD outcomes means that there are no uniform standards for how these programs should be conducted, leaving providers few resources to guide program development. Funding for these programs and time for GTAs to participate in them are often not prioritized by institutions.

***Institutions can do several things to support quality GTA TPD.*** Faculty and institutional leaders should be aware of and advocate for effective biology GTA TPD. These programs are essential for undergraduate success and the professional development of graduate students. Faculty and staff who lead GTA TPD need to be given the time, money and praise for their efforts, particularly for conducting research on the effectiveness of their programs. This collection of data is critical to identify the most effective practices for GTAs and undergraduate students.

**How will you improve GTA TPD at your institution?** Visit [biotap.utk.edu](http://biotap.utk.edu) for more information.