

Comparison of Graduate Teaching Assistants' Ratings of Individual Program Components in a Multi-Component Pedagogical Training Program

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Sadera et al's (2024) scoping review on sustainable professional development (PD) of graduate teaching assistants (GTAs), teaching assistants, and tutors, noted that continuous, discipline-specific training, both before and during teaching, was important to the development of GTA's teaching identity and self-efficacy and their attitudes towards teaching-oriented PD and research. Designed to be a continuous, multi-component pedagogical development program using a framework of community of practice (Lave, 1991; Wenger, 1988), the National Science Foundation (NSF) funded *Promoting Undergraduate Success in Mathematics through Graduate Teaching Assistant Training* (PSUM-GTT) project (Harrell-Williams et al., 2020; Manzanares et al., 2024) provided (1) practical training, grounded in relevant literature, regarding issues in undergraduate mathematical sciences instruction prior to or during their first semester of teaching; (2) opportunities to mentor and be mentored by peers; (3) K-12 outreach opportunities to gain an understanding of the student pipeline, (4) a Critical Issues in Undergraduate STEM Education/Learning (CIUSE) seminar series; and (5) instructional support through a peer TA Coach. Hence, knowledge of how beneficial each component was to the GTAs is important information for the current institutions and for other institutions considering which component(s) they might adopt.

Due to the COVID-19 pandemics' impact on institutional policy and instructional format in the early project years, assessment of early outcomes heavily relied on GTA-provided data. Specifically, this poster focuses on quantitative data from end-of-year surveys administered in each of the four academic years of program implementation (2019-2020 to 2022-2023) by summarizing and comparing GTAs' ratings of how beneficial each of the five program components were to them. Results varied across the three universities and four years, indicating that the importance of each component could be dependent on the specific cohorts of GTAs as well as other factors such as institutional policy and changes in department culture. For example, at one university, the peer mentoring program had the highest average ratings component in the first year (4.39 out of 5), which was .74 higher than the other two schools. At the same university, the K-12 outreach had the highest average rating (4.5) in the last two years. However, average ratings for outreach were low at the other two universities, with means at or less than 2. Implications for program component adaptation and adoption will be discussed.

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