

An Integrated Teaching Model for Post-Covid Graduate Teaching Assistants Professional Development

John Sevier
Appalachian State University

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The roles and expectations for many of the GTAs vary across higher education, from assisting instruction through grading and tutoring on a small scale to teaching entire mathematics courses. Graduate teaching assistants (GTAs) are indispensable assets in many undergraduate learning programs in higher education (Di Bendetti et al., 2022; Lang et al., 2020; Mutambuki & Schwartz, 2018). Higher Education has responded to the growing demand for teaching staff by utilizing GTAs in many gateway courses, including entry-level mathematics courses. It is assumed that if GTAs have a background or a degree in mathematics, they can support and teach mathematics. Unfortunately, many of these GTAs have little to no prior teaching experience (Choate et al., 2021; Di Bendetti et al., 2022; Jonnalagadda et al., 2022; Lang et al., 2020; Mutambuki & Schwartz, 2018). This issue only intensified after many educational programs and clinical practice (student teaching) experiences were altered, shortened, or eliminated outright in March 2020 due to COVID-19 (Choate et al., 2021; Flores & Swennen, 2020). Many students now have a perceived gap (K-12 and post-secondary) in content understanding due to the sudden shift to online learning. This gap is especially impactful on mathematics students and pre-service educators (Choate et al., 2021; Flores & Swennen, 2020; König et al., 2020). Many GTAs entering graduate mathematics programs during this time were expected to support students in the gateway mathematics courses with little to no training or professional development. Many higher education institutions provide some professional development, including one-day workshops, one-credit courses, observation/shadowing opportunities, mentoring, and microinstruction, but few provide any extensive, effective teacher training (Di Bendetti et al., 2022; König et al., 2020; Lang et al., 2020). Even so, many GTAs still are underprepared for future teaching beyond graduation (Choate et al., 2021; Lang et al., 2020). However, with the sudden shift to online learning, there needs to be a new emphasis on GTA professional development and effective teaching training to help engage students affected by the changes in mathematical instruction.

This poster will present the development and implementation of a comprehensive GTA effective teacher training and professional development model created to tackle and address the need for a more conducive and thorough professional development framework for teaching and assisting mathematics GTAs in the post-Covid era and the sudden shift to online instruction. This model is divided into three phases and covers a four-term (two-year) graduate program that incorporates clinical teaching (in-person and online), a mentoring program, micro sessions of professional development, peer and student feedback reflections. This poster will review the model with collected GTA insight from the past three years (Fall 2020- Fall 2023) on the impact of their experiences within this model. Specific highlights will focus on areas GTAs felt most prepared in content understanding, pedagogical preparedness, and beliefs about entering the mathematics classroom. The aim is to provide other mentors insight to better support the educational growth of GTAs and other preservice mathematics teachers.

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