

Implementation Supports and Outcomes of Online Professional Development Workshops

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Introduction

Online professional development (PD) workshops can be more accessible for math instructors whose responsibilities, constraints, or preferences do not align with participation in in-person PD (e.g., caregiving responsibilities, under-resourced institutions, concerns for environmental impacts of travel). In response, the MAA offered a series of online workshops that covered a variety of teaching topics (e.g., content-focused PD vs. pedagogy-focused PD) in the summers of 2022 and 2023. While the workshops appeared to be effective in helping instructors make changes to their teaching (Valadez Fraire et al., 2024), we also wanted to know how participants were changing their teaching and which workshop features, if any, were impactful in supporting these changes and how these supports and implementation may differ by workshop topic.

Methods

We surveyed math instructors who participated in any of 16 online workshops in the summers of 2022 and 2023. Surveys were administered about one year after instructors took part in the workshop. Respondents were asked if they had implemented anything in their classes that they had learned in the workshop, and if so, what, and which workshop features, if any, helped them to make these teaching changes. We computed descriptive statistics for quantitative items and conducted thematic analysis for open-ended items.

Results and Discussion

Respondents reported incorporating concrete examples, group work, and pedagogy changes (e.g., classroom activities and classroom materials). Respondents identified several workshop features that aided their implementation of what they learned at the workshop, such as access to resources, concrete examples, time to plan how they would use what they learned in the workshop in their teaching, and interactions with peers and facilitators. These findings demonstrate the different ways that participants implemented what they learned during an online PD workshop and the workshop features that helped them to enact their planned implementation in their classrooms. PD providers could utilize these features to create implementation-focused PD opportunities.

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References

- Valadez Fraire, J., Archie, T., Laursen, S., & Gallion, K. (2024). Opening access to professional development: Outcomes of teaching-focused online workshops. In Cook S., Katz, B., & Moore-Russo, D. (Eds.), forthcoming. *Proceedings of the 26th Annual Conference on Research in Undergraduate Mathematics Education*. Omaha, NE.