# EXPLORING VIDEO COACHING PRACTICES OF ONLINE MATHEMATICS COACHES

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Keywords: Teacher Education – Inservice / Professional Development, Technology

Coaching has become a common practice to support teachers (Coburn & Russell, 2008; Foltos, 2014; Knight, 2007). While much of the coaching research has focused on the roles and responsibilities of coaches (Gibbons & Cobb, 2017; Mudzimiri et al., 2014) there is a lack of empirical research on what occurs in the interactions between a coach and teacher and the mechanisms by which these interactions support teacher learning. This study aims to understand both *how* and *why* coaches engaged in specific coaching practices.

We analyzed interviews with four mathematics coaches in which they reflected on the purposes, goals, and practices they perceived as critical for supporting teachers in a fully online coaching model. For three years, these coaches had used an online content-focused coaching model with rural middle school mathematics teachers. The online coaching model was an adaptation of West and Staub's (2003) content-focused coaching, which prioritizes focusing on mathematical content knowledge and student thinking. In this study, the coach and teacher co-planned a lesson via Zoom, the teacher enacted the lesson and recorded with a Swivl robot and iPad, and the coach and teacher debriefed the lesson via Zoom. The lesson video was uploaded automatically to a shared library, through which the coach and teacher viewed and annotated the lesson video prior to the post-lesson conference.

## Analysis and Findings

We used Barlow et al.'s (2014) dimensions of coaching purposes: interacting with teachers about mathematics content, promoting teacher reflection, and negotiating professional relationships between coach and teacher. This framework helped us to identify specific coaching practices and connect the coaches' rationale to how these practices supported teacher learning. For example, coaches described doing the mathematics of the lesson with the teacher in the planning meeting because it afforded richer discussions of how students learn the mathematical content and how instructional decisions would influence whether they met the goals of the lesson. Coaches also reported that doing the mathematics together provided opportunities for the coach to deepen the teacher's mathematical content knowledge.

Additionally, several coaching practices were indicated as being critical to prompting teacher reflection and negotiating professional relationships: annotating the lesson video, making suggestions, and discussing evidence from the video related to the learning goals of the lesson and instructional practices goals of the teacher. The coaches indicated these practices led to collaborative and more reflective relationship with a teacher.

The results of these analyses provide examples of how and why specific coaching practices can support the development of teachers' instructional practices. We believe this study will support the coaching research community.

## Acknowledgments

The material is based upon work supported by the National Science Foundation under Grant DRL-1620911.

In: Sacristán, A.I., Cortés-Zavala, J.C. & Ruiz-Arias, P.M. (Eds.). (2020). *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Mexico. Cinvestav / AMIUTEM / PME-NA. https:/doi.org/10.51272/pmena.42.2020

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