

THAI IN-SERVICE TEACHER'S REACTIONS TO A UNITED STATES-BASED TEACHING PRACTICE

Nitchada Kamlue¹, Jessica L. Postma¹, Zeynep Arslan², Blake E. Peterson³, and Laura R. Van Zoest¹

¹Western Michigan University, ²Trabzon University, ³Brigham Young University

To better understand how teaching practices developed in the context of one country translate to other countries, this exploratory study investigated how a Thai mathematics teacher reacted to the United States-based teaching practice, building on a MOST. The teacher's reactions indicate that the use of misconceptions for the purposes of learning and providing opportunities for students to explore mathematics may differ from Thai teaching norms.

INTRODUCING A UNITED STATES-BASED TEACHING PRACTICE TO THAILAND

Focusing whole class discussions around student mathematical thinking has been encouraged in the United States for several decades (e.g., NCTM, 2014). The teaching practice *building on a MOST* (Mathematical Opportunity in Student Thinking) provides a usable structure for teachers to more productively lead discussions around high-leverage student contributions (e.g., Stockero et al., 2023). So far, building on a MOST has only been explored in the context of United States secondary mathematics classrooms. Thus, we drew on the construct of *cultural transposition* (Mellone et al., 2019) to consider how this teaching practice might support teachers in other cultures to examine their teaching. As part of a larger on-going project that aims to gain insight into how to make this practice more accessible to teachers across cultures, we began investigating the research question: *What are a Thai in-service mathematics teacher's reactions when introduced to the ideas of building on a MOST?* As the first phase of this project, we identified a Thai teacher who had expressed interest in learning about the [MOST project](#). The first three authors are from Thailand, the United States, and Turkey, respectively, and had all worked on the MOST project. They collaborated with the researchers who conceptualized the practice (Stockero et al., 2023) to develop session materials for sharing the practice with teachers outside the United States. To reveal the teacher's reactions, we used responsive interviewing throughout three sessions: (a) an *orientation session* for introducing the practice to the teacher for the first time, (b) a *Q&A* session for the teacher to ask any questions to help prepare for implementing the practice in two classroom enactments, and (c) a *reflection session* for understanding the practice through the teacher's experience after implementing the practice in Thai classrooms. Our preliminary findings reveal two crucial reactions. First, the teacher was surprised that the mathematical tasks used to introduce the practice was designed to trigger a misconception. In her experience, tasks were created with only the correct solutions in mind. Second, after being introduced to the practice, the teacher realized opportunities for students to explore mathematics in their own ways were not previously provided in her classroom. Instead, leading questions to narrow student mathematical thinking towards the correct solutions were the classroom norm. These insights allow us to reflect on the building on a MOST teaching practice to better plan professional development materials for teachers.

References

- Mellone, M., Ramploud, A., Di Paola, B., & Martignone, F. (2019). Cultural transposition: Italian didactic experiences inspired by Chinese and Russian perspectives on whole number arithmetic. *ZDM Mathematics Education*, 51, 199-212.
- National Council of Teachers of Mathematics (NCTM). (2014). *Principle to action: Ensuring mathematical success for all*. NCTM.
- Stockero, S. L., Van Zoest, L. R., Peterson, B. E., & Leatham, K. R. (2023). *A conceptualization of the teaching practice of building*. Manuscript submitted for publication.