DOCUMENTING ADAPTIVE EXPERTISE THROUGH THE EVOLVING USE OF AN ENACTMENT TOOL

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While orchestrating a whole-class discussion, a teacher draws upon a variety of "moves" (Boerst et al., 2011) to maintain the structure and goals of the discussion. In this paper, we focus on the orienting move of asking students to restate what a peer has said as a means to have an idea made public and mark it as a worthwhile part of the discussion (Chapin et al., 2013. We follow Ghousseini and colleagues (2015) by conceptualizing such moves as *enactment tools*, which "translate abstract conceptual tasks into more concrete steps and objectives" (p. 462), and considering the context, steps, and goals surrounding the move. To facilitate and document the development of adaptive expertise (Hatano & Inagaki, 1986), researchers have centered the use of enactment tools in coached rehearsals (e.g., Ghousseini et al., 2015), leaving more to know about how tool use transitions into more complex settings, such as student teaching. In this work, we address the following research questions: In what ways has a teacher candidate's (TC's) use of the restating tool evolved over time? In what ways has the purpose and goals associated with the restating tool changed?

We focus on one TC ("Diana") who regularly and explicitly "took up" this move in a secondary mathematics methods course and in her student teaching. She used the restating tool in coached rehearsals (e.g., Campbell et al., 2020), scripting tasks (e.g., Baldinger et al., 2018; Campbell et al., 2019), classroom videos from student teaching, and reflected on her use of the tool in interviews. To focus on Diana's evolving use of the restating tool, instances of the tool's use were identified in the data and paired with rationale and contextualization Diana provided for using the tool. Instances underwent open coding and analytic memo writing (Miles et al., 2014), which focused on: (1) the sequence of how the dialogue unfolded, (2) consistencies and changes in the restating tool, and (3) the purposes and goals associated with the tool's use.

Initial findings illustrate Diana's adaptive use of the enactment tool, as well as the purposes associated with its use. Over the course of a year and across contexts, Diana adapted the tool and her enacted sequence based on contextual, mathematical, and social purposes. These purposes included highlighting an important mathematical idea, orienting students to an idea, and positioning students productively in the classroom. Contextual and situational factors across contexts and time also contributed to nuances in the tool's use and purposes in enactment.

We found that TCs can develop adaptive expertise through opportunities to be responsive to students' social and mathematical needs. Such development can be documented by attending to changes in enactment tools—specifically how changes in the sequence and associated goals relate to contextual factors. These findings have implications for the contextualization and authenticity of the design of approximations of practice (Grossman et al., 2009) in teacher education and in research on TC development.

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