

TEACHERS' REFERENCING OF PUBLIC RECORDS OF STUDENT MATHEMATICAL THINKING

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Public records of student contributions are a common resource mathematics teachers use to make student thinking accessible in whole class discussions. Studies have implicitly addressed the use of public records in whole class discussions, such as to scaffold students' engagement with each other's ideas (e.g., Webb et al., 2014), but the detailed nature of how teachers use public records is largely unknown. Our research on whole class discussions that leverage student thinking (Van Zoest et al., 2016) surfaced the ways teachers regularly used public records throughout such discussions. In our work, we consider public records of student mathematical thinking to be physical and visual representations of student mathematics that are accessible to all participants within a classroom. This poster will present findings from our analysis of 12 secondary teachers' *explicit referencing* of public records. Our analysis focused on how referencing helped teachers to build on student thinking throughout whole class discussions.

Explicit referencing is a teacher's physical or verbal actions or combination of actions that draws attention to the public record or a portion of the public record. Physical actions include gestures towards specific or general parts of the public record; verbal actions include words that draw attention to the public record in some way (e.g., naming student thinking, using locator words). Early in the discussions, explicit referencing is needed to make a student contribution an object so that there is no ambiguity regarding the contribution as a discussion develops around it. Additionally, explicit referencing can focus and engage the class with specific mathematical ideas of the student's contribution. As discussions continue, explicit references to additions or edits of the public record help the class to identify and coordinate the mathematical ideas emerging in the conversation.

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