

# A THEORETICAL FRAMEWORK FOR EXAMINING DISCOURSE IN MATHEMATICS CLASSROOMS

Eric Knuth, University of Wisconsin-Madison

Dominic Peressini, University of Colorado-Boulder

The purpose of this session is to present a theoretical framework for examining discourse in mathematics classrooms that draws upon work from outside the body of mainstream mathematics education literature. Specifically, we draw upon Mikhail Bakhtin's notions of speech genre and voice (see Knuth & Peressini, in press). Bakhtin (1986) posited that discourse can be characterized—in terms of speech genres—by the nature of its utterances: “A speech genre is not a form of language, but a typical form of utterance.... Genres correspond to typical situations of speech communication, typical themes and, consequently, also to particular contacts between the *meanings* of words” (p. 87). Bakhtin differentiated between different types of speech genres in terms of the degree to which one voice can come into contact with and interanimate another (Wertsch, 1991). According to Bakhtin, true understanding results only when the voice of a listener comes into contact with and confronts the voice of the speaker, that is, through the interanimation of voices. Yet, the degree of interanimation of voices—and thus the understanding developed—may differ depending upon the nature of discourse in which the interlocutors engage.

Using this framework, we explore the theoretical underpinnings of discourse and how discourse actually functions in mathematics classrooms. We then address possible ramifications of these different functions of discourse in mathematics classrooms. In conclusion, we discuss a variety of issues that have arisen as we have used this theoretical framework as well as considerations for future research.

## References

- Bakhtin, M. M. (1986). Speech genres and other late essays, ed. by C. Emerson and M. Holquist, trans. by V. W. McGee. Austin: University of Texas Press.
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- Wertsch, J. (1991). Voices of the mind. Cambridge, MA: Harvard University Press.