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Measuring K-8 teachers' perceptions of discourse use in their mathematics classes.

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Summary: This article documents the development and use of a survey instrument designed to measure K-8 mathematics teachers' perceptions about discourse in mathematics classes. In particular, the 5-point Likert-type survey sought to address teachers' perceptions of their use of dialogic (dialogue to construct new meaning), univocal (conveying information), and general discourse in their mathematics classes. Factor analysis revealed three reliable factors that were compatible with the original constructs, these include: dialogic discourse ($\alpha_3 = .67$), univocal discourse ($\alpha_1 = .83$), and general discourse ($\alpha_2 = .68$). These results suggest a framework that could be used to uncover K-8 teachers' perceptions of their use of discourse in mathematics instruction, especially if there is interest in tendencies toward univocal or dialogic discourse. In addition to research implications, the survey could be used to inform the design and implementation of teacher professional development that focuses on discourse in mathematics instruction. (Contains 1 figure and 8 tables.) (ERIC)

Classification: B50 C70

Keywords: classroom discourse; teacher perception; teacher attitudes; classroom communication; teaching methods; faculty development; questionnaires; test construction; psychometrics; test validity; test reliability; educational research

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