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**Language, diversity, and assessment in mathematics learning.**

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After describing the classroom diversity in the US the author points to the underlying assumption of the mathematics education reform movement being that all children will learn mathematics, including those from groups that are traditionally underrepresented within mathematics, science and technology careers. One of the recommendations of the reform movement is that students are to communicate mathematically using a variety of tools, including written and spoken language. This emphasis on language and other communication tools raises the question: How do the language and mathematical meanings of a teacher from the majority culture differ from the language and mathematical meanings of children from diverse cultures, not only psychologically, but also socio-culturally? To begin the dialogue this paper examines the theoretical framework of Vygotsky with respect to communication tools, cognition, and socio-cultural effects on these tools. Included in this discussion is the work of Luria, who developed instruments for diagnosing children's conceptual understanding. Adapting Luria's instruments for alternative assessments, this paper reports the results of several studies of students' word meanings of division. Finally, the implications of socio-cultural diversity, teaching, and assessment are discussed.

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