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In-service teachers' reasoning about scenarios of teaching mathematics to English language learners.

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Summary: The student population in the U.S. and worldwide is becoming increasingly diverse, creating a need to support all learners, especially linguistically and culturally diverse subpopulations such as English language learners (ELLs). From a social equity standpoint, the need to support these learners is critical especially in mathematics classrooms. In the U.S, the demand for mathematics teachers who are adequately prepared to teach ELLs has in fact risen. Yet, little is known about what knowledge base is essential to teach mathematics to ELLs. Driven by the need to explore this knowledge base, in this paper I explore what is involved in reasoning about teaching mathematics to ELLs. To this end, a set of instructional scenarios illustrating the work of teaching mathematics to ELLs was utilized within an assessment environment. Interviews with 10 mathematics teachers reasoning about the scenarios showed that they drew on the information provided about ELLs' proficiency levels while reasoning through the scenarios. Also, teachers' reasoning seems to be qualified by the extent to which they could both use their content knowledge in mathematics and modify their instructional choices according to ELLs' language needs specified in the scenarios. This study motivates large-scale future studies examining what systematic teacher knowledge base might differentiate good teaching for ELLs from good teaching for all students.

Classification: D69 D39 C50

Keywords: teacher education; professional knowledge; second language learners; teacher knowledge base; research; interviews; instructional scenarios; teaching; equal opportunities; professional development; multicultural education; linguistic features

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