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Procedural and conceptual knowledge: exploring the gap between knowledge type and knowledge quality.

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Summary: Following the first author [J. Res. Math. Educ. 36, No. 5, 404–411 (2005; ME 2009a.00151); ibid. 38, No. 2, 131–163 (2007; ME 2007b.00067)], we continue to problematize the entangling of type and quality in the use of conceptual knowledge and procedural knowledge. Although those whose work is guided by types of knowledge and those whose work is guided by qualities of knowledge seem to be referring to the same phenomena, actually they are not. This lack of mutual understanding of both the nature of the questions being asked and the results being generated causes difficulties for the continued exploration of questions of interest in mathematics teaching and learning, such as issues of teachers' knowledge.

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