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Logical and psychological aspects of rational number pedagogical reasoning.

Hiroshima J. Math. Educ. 3, 63-75 (1994).

This paper synthesizes research on content knowledge of rational numbers, the learning of rational number order and equivalence concepts, and teachers' pedagogical reasoning about these concepts. The paper uses teacher's descriptions of how a hypothetical student would understand rational numbers to sketch a formative model of pedagogical reasoning. The idea behind the model is to use what is known about the learning of rational number concepts as a normative base for the assessment of teachers' pedagogical reasoning. "Good" and "bad" examples of teacher reasoning, from the perspective of the model, are described. The evaluation is made by comparing teachers' explanations of student thinking about rational numbers with what is known about the logic and the psychology of rational number learning. (orig.)

Classification: F40