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A Conceptual Framework for Designing Pedagogical Problems to Investigate Mathematics Teachers' Pedagogical Reasoning

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Researchers have identified and measured different categories of knowledge for teaching mathematics and different types of beliefs about learning and teaching mathematics. Nonetheless, one critical construct, teachers' pedagogical reasoning, seems to be less investigated in the literature. Teachers' pedagogical reasoning is required to make pedagogical decisions with their knowledge and beliefs. The aim of this study is to propose a conceptual framework for designing pedagogical problems to investigate mathematics teachers' pedagogical reasoning. This framework is composed of two dimensions: pedagogical phases and learning tasks. Pedagogical problems regarding each phase with learning tasks will be designed and a basis for further investigation.