

Examining the Field Knowledge of Secondary School Mathematics Teachers on Posing Problems Regarding Multiplication of Fractions*

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Abstract

This study aims to examine the problem-posing skills of middle school mathematics teachers on the topic of multiplication with fractions, specifically from the perspective of the "content knowledge" subcomponent of pedagogical content knowledge. The study was conducted using a qualitative method, specifically a case study design, and was carried out with a middle school mathematics teacher selected through purposive sampling. Data were collected using the Problem Posing Content Knowledge Test (PPCKT). The participating teacher was asked to create problems suitable for the given operations, and these problems were evaluated and analyzed according to the scoring guidelines determined by Örnek (2020), which include the dimensions of "meaningfulness," "solvability," "language," and "realism." The analyses revealed that the teacher created problems that were "partially adequate" in terms of language, realistic stories, and problems where the data were meaningful and solvable in a formal sense.

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