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## **Pre-Service Mathematics Teachers' Responses to Mathematics Word Problem with Contradictory Information in Context**

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### **ABSTRACT**

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Most mathematics word problems contain real-life context, but not all are relevant to real-life reality. Despite the mathematical solvability of these problems, their contexts may be contrary to the facts in the real world. This study explored the responses of pre-service mathematics teachers while facing the mathematics word problem containing contradictory information within a real-life context. A total of 48 pre-service mathematics teachers from various cohorts participated in this study. The participants were asked to solve a mathematics word problem that was designed to be solvable mathematically but presented a situation that contradicted to real-life context. The findings reveal that while the participants are adept at mathematical procedures, many did not realize and some were confused by the anomalies within the problem context. Only a few of them recognized the contradictory information and stated that the problem was illogical or impossible. This study specifically explores the gap between mathematical solvability and the relevance of real-world contexts in word problems. Most previous research has primarily focused on pre-service teachers' ability to solve mathematical problems without examining whether they notice the anomalies in the problem's context. This study emphasizes raising pre-service mathematics teachers' awareness of the real-life context in mathematics word problems.