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## **How does task requirement influence the solution strategy and reading pattern of the text of inconsistent, compare problems in case of primary school pupils?**

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### **Abstract**

The present study investigates the effect of different task requirements on solving inconsistent compare word problems, when the relational term is not consistent with the arithmetic operation required for the solution. The objective of this research is to examine whether the task requirement necessitates different solution strategy and how it influences the reading pattern and the success rate of inconsistent compare word problems. Therefore, in this study eye-tracker was used to monitor participants eye movements while reading and solving compare word problems. Fifty-six 4<sup>th</sup> graders' eye-movement behavior and responses were collected to analyze the fixation time and fixation number on different data from the tasks and the solution time on each task. In the test inconsistent compare problems were given requiring the use of multiplication/division operations. The problems were divided in three groups with different task requirements. Firstly, pupils could freely concentrate on the text elements they wanted. In the second case students were forced to spend more time focusing on the context of the problem. Lastly, pupils had to create the graphical representation of the word problem taking into account the relation between the variables. The data collection is finalized and the data analysis is in progress. Detailed results comparing the effect of task requirements will be presented.

**Keywords:** compare word problem, consistency effect, Eye-tracking, inconsistent task, task requirement