

IMPROVING ELEMENTARY SCHOOL STUDENTS UNDERSTANDING TOWARDS MATHEMATICAL WORD PROBLEM THROUGH COMMUNICATIVE APPROACH

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ABSTRACT

According to the students' point of view, word problems are considered more difficult than common type of problems that causes them to dislike it. Some research has identified the key factor contributing to the students' failure to solve the problems correctly, which is the mismatch between the language used in the problem and the language competence of students. Hence, it is important to develop a model for word problems that is able to accommodate the discrepancy. This model will involve communicative language as the key of the model improvement. This research is done in order to identify the effective procedures in: (1) implementing the word problems model with communicative language and (2) implementing the reference books which are developed by researchers in mathematical studies. The goals could be achieved through an analysis of its implementation towards elementary school students in 3 action research cycles. The research is done collaboratively with education experts from mathematic and language fields, together with teachers from 12 elementary schools in Surakarta and Karanganyar. The activities involve: (1) planning, (2) acting, (3) observation of the action, and (4) analysis and reflection of the process and its results. The results show that the word problems which are developed with communicative language could improve the students' ability to solve the problems if it is relevant to their communicative competence. It means that the more relevant the word problems character to the linguistic competence, sociolinguistic, and discourse competence that students possess is, the higher their understanding level will be. Another finding is that the process of problems making by teachers will be easier if it is done using paraphrase method and analogy method. For fourth grade students, word problems made by their teachers are more effective if it is delivered orally, while for fifth and sixth grade students, it is more effective if it is delivered in text. The teachers made word problems which are longer than those in the textbooks are easier to be understood and more preferred by students if there are story characters, setting, and theme which is similar to their real life. The long word problems are identical with the presence of 3 discourse components which are initial situation, events, and questions.

Kata kunci: soal cerita, menerjemahkan soal cerita, pendekatan komunikatif, kompetensi komunikatif