

ANALYSIS OF ELEMENTARY SCHOOL STUDENTS' THINKING ABILITIES BASED ON SOLO TAXONOMY IN SOLVING HOTS MATHEMATICS PROBLEMS

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ABSTRACT

The low level of high-order thinking skills of elementary school students in mathematics is a problem that requires in-depth and systematic study. This study aims to: (1) describe the profile of elementary school students' thinking skills based on the Structure of Observed Learning Outcomes (SOLO) taxonomy; (2) identify the dominant level of the SOLO taxonomy achieved by students in solving Higher Order Thinking Skills (HOTS) mathematics problems; and (3) analyze the factors that influence differences in the levels of the SOLO taxonomy of elementary school students. This study uses a literature study method (library research) with a qualitative content analysis approach to ten relevant and verified scientific literature sources. The results of the study indicate that the profile of elementary school students' thinking skills is still dominated by the multistructural level, where students are able to use more than one piece of information but have not been able to integrate it comprehensively and coherently. Achievement of the relational and extended abstract levels is still very limited. Factors that influence variations in these levels include cognitive style, metacognitive abilities, initial mathematical abilities, and the learning methods applied. This study confirms that the SOLO taxonomy is an effective diagnostic instrument for mapping students' thinking quality hierarchically and comprehensively.

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