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Meta-Instruction Theory in Mathematics Education and Critique of Bloom's Theory

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Abstract : The purpose of this research is to present a different perspective on the basic math teaching method called Meta-Instruction, which reverses the learning path. Meta-Instruction is a method of teaching in which the teaching trajectory starts from brain education into learning. This research focuses on the behavior of the mind during learning. In this method, students are not instructed in mathematics, but they are educated. Another goal of the research is to 'criticize Bloom's classification in the cognitive domain and reverse it' because it cannot meet the educational and instructional needs of the new generation, and 'Substituting math education instead of math teaching'. This is an indirect method of teaching. The method of research is longitudinal through four years. Statistical samples included students ages 6 to 11. The research focuses on improving the mental abilities of children to explore mathematical rules and operations by playing only with eight measurements (any year 2 examinations). The results showed that there is a significant difference between groups in remembering, understanding, and applying. Moreover, educating math is more effective than instructing in overall learning abilities.

Keywords : brain education, mathematics teaching method, Bloom's taxonomy, remembering, understanding, applying, Meta-Instruction, Starmath method
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