

THE EFFECTIVENESS OF METACOGNITIVE APPROACH IN LEARNING PHYSICS REVIEWED FROM THE IMPROVEMENT OF STUDENTS' PHYSICS PROBLEM SOLVING, REASONING, AND CREATIVE THINKING SKILLS OF SENIOR HIGH SCHOOL STUDENTS

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ABSTRACT

This research aims to fine out a more effective approach to improve: (1) physics problem solving skill, (2) reasoning skill, and (3) creative thinking skill between metacognitive and conventional approaches to senior high school X grade students in Simple Harmonic Motion learning. The research is a quasi experimental research with pretest-posttest control group design. The sample was taken by cluster random sampling technique. The results showed that: (1) The metacognitive approach is more effective than the conventional approach in Simple Harmonic Motion learning to improve the physics problem solving skill of class X high school students. (2) The metacognitive approach is more effective than the conventional approach in Simple Harmonic Motion learning to improve the reasoning skill of class X high school students. (3) The conventional approach is more effective than the metacognitive approach in Simple Harmonic Motion learning to improve the creative thinking skill of class X high school students.

Kata Kunci: effectiveness, metacognitive approach, conventional approach, problem solving skill, reasoning skill, creative thinking skill