

ABSTRACT

THE EFFECT OF METACOGNITIVE INQUIRY BASED LEARNING ON 4TH GRADE STUDENTS' ACADEMIC ACHIEVEMENT, SCIENTIFIC PROCESS SKILLS AND METACOGNITIVE PROCESSES IN SCIENCE COURSE

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The aim of this study is to examine the effect of metacognitive inquiry based learning on 4th grade students' academic achievement, scientific process skills, and metacognitive processes in science course. Mixed methodology method was used in this study. In the quantitative section of the study, the model of quasi experimental method with pre test post test control group was used. In the experimental group the instruction was based on metacognitive inquiry based learning. In the control group, the instruction was held as the way teacher did depending on the recommendations of the Science and Technology Curriculum by National Ministry of Education. The sample of the study consists of 70 fourth grade students in a primary school in İnegöl district of Bursa. In the quantitative section of the study, three target students were selected and semi-structured interviews were conducted with them in order to monitor the changes in their views on the inquiry based learning and metacognitive process. Moreover their views on these processes were evaluated through essay questions. According to the post test scores, there were significant differences between the experimental and the control groups in favor of the experimental group in terms of both tests except the acquired scores of the Metacognitive Awareness Scale. The target students' views on the inquiry based learning and metacognitive processes have changed in a positive sense.

KEYWORDS: Metacognition, Inquiry-based Learning, Science Process Skills, Academic Achievement, Metacognitive Process.