

## EXAMINING THE MEASUREMENT ESTIMATION SKILLS AND STRATEGIES OF SEVENTH GRADE STUDENTS ON THE BASIS OF METACOGNITIVE KNOWLEDGE

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### Abstract

The aim of this research is to examine the measurement estimation skills and strategies of 7<sup>th</sup> grade students on the basis of metacognitive knowledge. The workgroup of the study is consist of 32 seventh grade students studying in a public secondary school in the province of Eyup in Istanbul in 2016-2017 school year. The data of the study has been obtained from 30-item "Metacognition scale" and "Estimation skills on measurement test" consisting of 12 open-ended questions. In the study a mixed method consisting of both qualitative and quantitative data was applied. Quantitative data were analyzed by using frequency, percentage and correlation test. Qualitative data were obtained from interviews with students and were used to support quantitative data. As a result of the study it has been found that there is a positive, mid-level, statistically meaningful relation between measurement estimation skill and metacognitive knowledge. In addition, it has been determined that students prefer different strategies according to the level of metacognitive knowledge. Various suggestions were presented to the researchers in consideration of findings obtained.

**Keywords:** Metacognition, estimation skill, measurement estimation