

# MOTIVATION AND METACOGNITIVE SCIENCE LEARNING CONSTRUCTS OF EIGHTH GRADE STUDENTS

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This study aims to examine the relationship between eighth grade students' metacognitive science learning orientation towards science and their motivation towards science. In this study, quantitative research was conducted to determine and analyze the current situation. The causal comparison design will be used as the design of the research. The target population of the research consisted of all eighth grade students studying in middle schools in the province of Kütahya. The sample consists of 590 eighth grade students from seven different schools in the center of Kütahya. In this process, two scales were planned to be used: Self Efficacy and Metacognition Learning Inventory- Science (SEMLI-S) (Thomas, Anderson, & Nashon, 2008) and Science Motivation Scale to measure the motivational attitudes of eighth grade students in their science learning orientation. Exploratory and confirmatory factor analyses were performed to check the construct validity of the scale. At the same time, various descriptive and inferential statistics were performed. The first scale used in the research; SEMLI-S, which is a 5-point Likert type and consists of 4 sub-dimensions, was translated into Turkish in another study (Gokalp & Kirbulut, 2013). The validity and reliability were tested in a sample consisting of students at higher education level and the students were evaluated. In this study, the validity and reliability of the measurement tool were evaluated at the primary education level. The Science Motivation Scale, which will be used in the research, consists of 5 sub-dimensions, and its validity and reliability were tested in a sample consisting of secondary school students and the students were evaluated. In this study, the validity and reliability studies of the measurement tool were also evaluated at the primary education level. The results of the current showed that there is a strong correlation between students' science motivation and their metacognitive science learning orientations ( $r=0.69$ ).

## REFERENCES

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