

Examining Middle School Students' Visual Mathematics Literacy Self-Efficacy Perceptions According to Various Variables

Selda ÖZDİŞÇİ¹, Yasemin Katrancı²

PhD Student, Dokuz Eylül University, Graduate School of Education Sciences, Türkiye¹
Kocaeli University, Faculty of Education, Department of Mathematics and Science Education, Türkiye²

Abstract

In this study, first, we aimed to determine the level of visual mathematics literacy self-efficacy perceptions of middle school students. Then, we aimed to examine whether these perceptions differ significantly according to various variables such as gender, grade level, mathematics achievement, getting support, and parental educational level or not. It is a survey study. Hence, 278 middle school students participated in the study. The data was collected with the Visual Math Literacy Self-Efficacy Perception Scale. The results of validity and reliability analyses of the data collected showed the analyses could be done. After this, it was determined that the data distributed normal or not. According to this, all the data show normal distribution so that parametric tests such as independent sample t-test and One-Way ANOVA were used to analysis the data. As a result of the analyses, middle school students' visual mathematics literacy self-efficacy perceptions are at the high level. While their visual mathematics literacy self-efficacy perceptions do not show a significant difference according to gender, getting support, and father educational level, these perceptions show a statistically meaningful difference according to grade-level, mathematics achievement, and mother educational level.

Keywords: gender, grade-level, math achievement, getting support, parental educational level