

## **A STUDY ON THE IMPACT OF 7<sup>th</sup> GRADERS' PERCEPTION OF MATHEMATICAL SELF-EFFICACY ON THEIR MATHEMATICAL COMPETENCY IN RATIO-PROPORTION**

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### **Abstract**

The objective of this research is to examine the impact of students' perception of self efficacy in mathematics on their competence regarding ratio and proportion. The research was conducted at a public school situated in the European Side of İstanbul. The group on which the research was conducted consisted of 31 7<sup>th</sup> graders. The data in this research was acquired using the 'mathematics self efficacy scale' developed by Umay (2001) and an open-ended 'ratio and proportion competency test' which aims at determining students' academic competency regarding ratio and proportion. A mixed method which includes both qualitative and quantitative data was put forth in the research. For quantitative data, correlation and regression analyses were used. Qualitative data was acquired through student interviews to support the quantitative data. The data shows that there is a positive relationship between student's perception of self efficacy and competency in mathematics. According to findings the data shows that there is a high level, meaningful and ship between student's perception of self efficacy and competence in mathematics. Furthermore, student's perception of self efficacy is considered to be a meaningful predictor of their mathematical competence. The researchers were provided with various proposals based on the research findings.

**Keywords:** Mathematics self-efficacy perception, mathematics success, ratio-proportion.