

## **AN INVESTIGATION OF DIFFICULTIES OF THE SEVENTH GRADE STUDENTS IN THE RATE AND PROPORTION TOPICS**

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### **Abstract**

The aim of this study is to investigate what the seventh grade students have difficulty in the rate and proportion topics. A total of 90 students who are studying in the seventh grade in a district of Bursa province participated in the study. In accordance with this purpose, quantitative data were collected through the test which was developed according to the goals, besides this, to determine how they interpret problem cases, qualitative data were collected from interviews were conducted with 10 students. In order to analyze data, descriptive statistics, as frequency and percentages, were used. The results showed that lots of the students have difficulty in the direct and inverse proportionality problems and they can't decide whether two variables are direct or inverse proportional. The students have also lack of conceptual information in ratio –proportion concepts.

**Keywords:** Rate, proportion, proportional reasoning, difficulties encountered.