

## ÖĐRENCİLERİN RASYONEL SAYILAR KÜMESİNİN YOĐUNLUĐUNU ANLAMALARI

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### Abstract

The aim of this study is to determine students' understanding of density in the set of rational numbers. The participants of this study were students who were studying at a high school in the city of Ordu. Data were collected by using the question set which was presented by Vamvakoussi and Vosniadou(2010). In this question set there were intervals with different typed endpoints(natural number-natural number, natural number-decimal, decimal-decimal and fraction-fraction). The participants were asked how many and what type of numbers were there in these intervals and their responses were interpreted within the framework theory approach to conceptual change. At the end of the study it was determined that students' had some difficulties with the density of rational numbers because of their ideas of discreteness. Additionally it was revealed that their responses about the number of intermediate numbers in those intervals effected by the symbolic representation of endpoints.

**Key Words:** Conceptual change, rational numbers, density.