

Bibliometric Analysis of Theses on Sets in the Field of Mathematics Education*

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Abstract

The aim of this research is to determine the research trends of postgraduate theses on the topic of "Sets" in the field of mathematics education in Turkey. To this end, 13 master's theses and 2 doctoral theses on the topic of sets in the completed in the field of mathematics education in the YOK (Council of Higher Education) database were examined using descriptive content analysis. In this context, the studies were analyzed according to seven criteria: publication year, sample level, sample size, aims, methods and designs, data collection tools, and teaching methods preferred in the studies. The findings obtained from the studies were presented in tables by calculating frequency and percentage values. Furthermore, the analysis of the theses was carried out by two researchers specializing in mathematics education in accordance with the determined criteria, and the reliability of the study was ensured by considering the agreement between the results. As a result of the research, it was determined that the vast majority of theses were conducted in 2009 and later, and the studies were predominantly conducted at the middle school level, especially with 6th-grade students. The study revealed that 6 of the theses examined were experimental in design, and these studies investigated the effects of different teaching methods on academic achievement. The results indicate that postgraduate research on clusters tends to focus on specific themes, and methodological diversity remains limited. This suggests that future studies should incorporate different research designs and variables.

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