



## AN INVESTIGATION OF THE CONCEPT OF VARIABLE IN TURKISH ELEMENTARY MATHEMATICS TEACHERS' GUIDEBOOKS

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### Abstract

This research was aimed to investigate the presentation of the concept of variable in the algebra learning domain of Turkish elementary mathematics teachers' guide books. Furthermore, it is particularly focused on whether explicit guidance on the teaching of the concept of variable for teachers is in these books. For this purpose, mathematics teachers' guide books for sixth, seventh, and eighth grade level were examined by using document analysis as the method of research. Results indicated that variables were situated in the books with the meanings of pattern generalizer, unknown, placeholder, parameter, varying quantity and arbitrary symbols. Furthermore, although pattern generalizer was being touched in all grade levels, parameter and arbitrary symbols were only given in eight grade levels. On the other hand, explicit guidance for teachers was not found in the books. There was limited information about students' misconceptions and different definitions of variable in the teachers' guide books of all grade levels.

**Key words:** The concept of variable, elementary mathematics teachers' guidebooks, algebra