

ABSTRACT

The main topic of this thesis is the conceptual process in the field of geometry, more specifically the process of pupils' cognition of geometric objects during the didactic game Owl. The research of the thesis is focused on pupils of younger school age 9-11 years old. The aim of the thesis is to map pupils' ideas about geometric objects, their accompanying phenomena and relations between them through experiments, the tool of which is the Owl game and its modifications. The didactic game Owl is described in detail in the theoretical part of the thesis. Here, the theoretical background for the design of the experiments and the analysis of the pupils' discussions are also presented and the terms used in the practical part are defined. These backgrounds include the terms concept and conceptual process, the stages of development of geometric language, the theory of levels of understanding and the theory of generic model, and last but not least the levels of geometric thinking of the author Van Hiele. In the practical part, I focus on the description of the methodology and the characteristics of both the overall group and the individual pupils in it. Besides, the paper includes a breakdown of the activity plan of each experiment with their expected outcomes for each group. This is followed by the implementation of the experiments, their recording and analysis. At the end of the thesis, I focus on a summary of the whole work, evaluating the degree to which all the chosen objectives were met, my progress in completing the task and suggesting possibilities for further research if necessary.

KEYWORDS

conceptual process in geometry, development of geometric language, didactic game, Owl game, analysis of pupils' work, communication