

## Developmental teaching experiment in the field of geometry

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### ABSTRACT.

Our research question is how lower primary geometry teaching in Hungary, particularly the concept of symmetry is related to the levels formulated by van Hiele. Moreover to what extent are the concrete activities effectively carried out at these levels in evolving the concept of symmetry. Our hypothesis is that in the lower primary geometry teaching (classes 1-4) the first two stages of the van Hiele levels can be put into practice. By the completion of lower primary classes level 3 cannot be reached. Children do not see the logical relationship between the properties of a given shape. They cannot come to a conclusion from one property of shapes to another.

In the lower primary the basics of geometrical concepts are laid down. In this paper the development of the concept of symmetry is examined. The evolvement of several geometrical concepts - among which the concept of symmetry as well - were examined in educational development experiments conducted with fourth class students.

In our paper we present the developing teaching experiment and its observations which we support with measurement results.

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