DIDACTIC EMPATHY OF ELEMENTARY MATHEMATICS TEACHERS

RENÁTA ZEMANOVÁ

ABSTRACT. This paper deals with the importance of didactic empathy of elementary mathematics teachers in connection with the current trend of constructivist way of teaching. The authors develop Hejny’s method of schema-oriented education and work in the didactical environment Cube Buildings. In this environment, they assign tasks to children aged 5–6, namely to build a cube building according to a scheme and display it in any way in a plane. Before carrying out the research the authors predict children’s solutions, both qualitative and quantitative. The qualitative prediction discriminates three basic conditions: correspondence with the scheme, building as a whole, and representation of the cube that is hidden in front view. Other qualitative conditions are observed with the last two conditions. The authors examine quantitative indicators in every qualitative condition defined in this way. Prediction, real data and correspondence rate are processed in tabular form. Based on the results analysis, the authors propose application in the training of future teachers of elementary mathematics.

KEY WORDS: didactic empathy, scheme building, cube buildings, teacher training

CLASSIFICATION: D49, D79

Received 10 April 2014; received in revised form 29 April 2014; accepted 7 May 2014

Author’s Address

RNDr. Renáta Zemanová, Ph.D.
Department of Mathematics with Didactics, Pedagogical Faculty, University of Ostrava, Mlýnská 5,
CZ – 701 03 Ostrava;
e-mail:renata.zemanova@osu.cz