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The relationship between visualization, spatial rotation, perceptual and operative apprehension.

Lindmeier, Anke M. (ed.) et al., Proceedings of the 37th conference of the International Group for the Psychology of Mathematics Education “Mathematics learning across the life span”, PME 37, Kiel, Germany, July 28–August 2, 2013. Vol. 3. Kiel: IPN–Leibniz Institute for Science and Mathematics Education at the University of Kiel (ISBN 978-3-89088-289-5). 129-136 (2013).

Summary: This study is a part of a research program designed to study the spatial ability and the geometrical figure apprehension development of students aged 10–13 years. Data were collected from 566 primary school students and 286 secondary school students using a test with two parts: a spatial ability test and a geometrical figure apprehension test. The results of the study give a first insight into the relationship between some major components of spatial ability and geometrical figure apprehension based on the performance of primary school students and secondary school students.

Classification: C32 C33 G23 G22

Keywords: visualization; spatial ability; spatial rotation; geometrical figure apprehension