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About affect in five Finnish dissertations on mathematical thinking.

Kislenko, Kirsti (ed.), Current state of research on mathematical beliefs XVI. Proceedings of the MAVI-16 (MAtheMatical VIews) conference, June 26–29, 2010, Tallinn, Estonia. Tallinn: Tallinn University, Institute of Mathematics and Natural Sciences (ISBN 978-9949-463-79-4/pbk). 313-330 (2011).

Summary: We study five Finnish dissertations on mathematical thinking from the last 10 years. We intend to answer the question ‘what have Finnish researchers said about mathematical thinking, with special emphasis on affective factors.’ In the studies presented, mathematical thinking is mostly seen as a cognitive function and only two of the five dissertations take affective factors profoundly into account in their theoretical framework. In the empirical part of the dissertations, mathematical thinking is viewed through mathematical or information processes, conceptual change, or different representations. The paper discusses the approaches to mathematical thinking and affect which appear in these studies.

Classification: C20 C30

Keywords: mathematical thinking; affective factors; mathematics education research