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Using strategy keys as a tool to influence strategy behaviour – a qualitative study.

Fritzlar, Torsten (ed.) et al., Problem solving in mathematics education. Proceedings of the 2015 joint 17th conference of ProMath and the 2nd GDM working group on problem solving, University of Halle-Wittenberg, Germany, September 3–5, 2015. Münster: WTM-Verlag (ISBN 978-3-95987-012-2/pbk; 978-3-95987-013-9/ebook). *Ars Inveniendi et Dejudicandi* 6, 137-147 (2016).

Summary: In this qualitative study, 16 students (aged 7 to 10 years) have been videotaped and interviewed while solving mathematical problems. During these processes, the students were encouraged to use so called strategy keys that are used as prompts (similar to aid cards) when the student gets stuck in the solving process. On each key, one general heuristic strategy is stated. This way, students have to decide which strategy could possibly help to overcome a barrier. In this study we investigated the influence of strategy keys on the students' strategy behaviour and identified five different behaviours.

Classification: D52

Keywords: problem solving; use of strategies