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**Hidden treasures in the problem solving teaching.**

Szűcs, Kinga (ed.), Problem solving in mathematics education. Problem solving learning – possibilities to measure the problem solving performance. Proceedings of the 12th ProMath conference, Jena, Germany, September 10–12, 2010. Münster: WTM-Verlag (ISBN 978-3-942197-16-8). *Ars Inveniendi et Dejudicandi* 1, 20-31 (2011).

Summary: Mathematics has two faces, says Pólya. It is deductive and strictly regulated, but while we are working mathematically, it is inductive. The latter is an opportunity for experiments and discovery, with creativity and fun. The duality is noticeable (obvious) in the two formulations of the so called pirates' problem as well. In connection with this I investigated the "sensitivity" of some students while solving the problem at the university. The results have shown that students didn't realize the difference. So in further investigations I was looking for an answer to the question: How this position of students can be influenced by changing the circumstances? In this paper the focus lies on the investigations and the results, which are thought-provoking and raise further questions. The by-products are the students' solutions to the problem, which are analyzed in another paper.

*Classification:* D55 C35 G45 Q35

*Keywords:* problem posing; problem variation; problem-solving strategies