



---

15/1-2. (2017), 51–64  
DOI: 10.5485/TMCS.2017.0431  
tmcs@science.unideb.hu  
<http://tmcs.math.unideb.hu>

---

**Teaching**  
Mathematics and  
Computer Science

# Some Remarks on History of Mathematical Problem Solving

BERND ZIMMERMANN

*Abstract.* In this contribution, it is our goal is to look on history of mathematics as a resource for a long-term study of mathematical problem solving processes and heuristics. In this way we intend to get additional information, e. g., about heuristics which proved to be extremely successful to create new mathematics. "Changing representation" and "false position" are examples of such strategies, which are illustrated by concrete examples to demonstrate the use for classroom teaching and teacher education. Our methods are based on hermeneutic principles.

*Key words and phrases:* problem solving, heuristic, history of mathematics.

*ZDM Subject Classification:* A30, D50, D59.

BERND ZIMMERMANN  
FRIEDRICH SCHILLER UNIVERSITY OF JENA

*E-mail:* [bernd.zimmermann@uni-jena.de](mailto:bernd.zimmermann@uni-jena.de)

*(Received January, 2017)*

The paper, based on a lecture hold at ICME 10 in Copenhagen 2004, TSG 18, Problem Solving.