

ZMATH 2015d.00293

Godino, Juan D.; Batanero, Carmen; Contreras, Ángel; Estepa, Antonio; Lacasta, Eduardo; Wilhelmi, Miguel R.

Didactic engineering as design-based research in mathematics education.

Ubuz, Behiye (ed.) et al., CERME 8. Proceedings of the eighth congress of the European Society of Research in Mathematics Education, Antalya, Turkey, February 6–10, 2013. Ankara: Middle East Technical University (ISBN 978-975-429-315-9). 2810-2819 (2013).

Summary: We analyze two approaches to research in mathematics education: “Design-based research” (DBR) and “Didactic engineering” (DE), in order to study their possible networking. The problem addressed in both approaches is the design and evaluation of educational interventions, providing research-based resources for improving the teaching and learning of mathematics. They also try to contrast existing theories, or characterize new educational phenomena. We conclude that DE could be seen as a particular case of DBR, linked to the “Theory of didactical situations”, or that DBR is a generalization of DE that use other theoretical frameworks as foundations for designing teaching experiments.

Classification: D20

Keywords: networking theories; didactic engineering; didactic design; teaching experiment; didactic resources