

ZMATH 2015f.00278

Bosch, Marianna

Doing research within the anthropological theory of the didactic: the case of school algebra.

Cho, Sung Je (ed.), Selected regular lectures from the 12th international congress on mathematical education, ICME 12, Seoul, Korea, July 8–15, 2012. Cham: Springer (ISBN 978-3-319-17186-9/hbk; 978-3-319-17187-6/ebook). 51-69 (2015).

Summary: Since its emergence in the early 80s with the study of didactic transposition processes, the Anthropological Theory of the Didactic maintains a privileged relationship with school algebra and its diffusion, both in school and outside school. I have chosen this case study to introduce the main “gestures of research” promoted by this framework and the methodological tools used to help researchers detach from the dominant viewpoints of the institutions where teaching and learning processes take place or which affect these processes in the distance. The construction of alternative reference models concerning school algebra and teaching and learning processes leads to some recent teaching experiences that break down the established didactic contracts, raising new research questions that need more in-depth analysis in the way opened by the “procognitive paradigm”.

Classification: D20 H20 H30

Keywords: school algebra; anthropological theory of the didactic; didactic transposition; arithmetic calculation programme; algebraization process

doi:10.1007/978-3-319-17187-6_4