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Theory of didactical situations and instrumental genesis for the design of a Cabri Elem book.

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). 2654-2663 (2013).

Summary: The contributions of two theoretical frameworks (theory of didactic situations and instrumental genesis) to the design of a sequence of tasks in the Cabri Elem environment, where task and technology design are closely linked, are shown. Considering the potential for instrumental genesis as a theory of technology design reveals a fundamental difficulty in dealing with representations. It is hence suggested that the role of the artefact be broadened to include environments, tools, and entities.

Classification: U70 D50

Keywords: task design; theory of didactic situations; instrumental genesis; technology design; representations