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Bridging diagnosis and learning of elementary algebra using technologies.

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). 2684-2693 (2013).

Summary: This paper presents research developed in the multidisciplinary PépiMep project (supported by the Ile de France region) which consists in transferring diagnosis and differentiation resources into the Sésamath platform, very much used by mathematics teachers in middle school in France. The research is based on the potentialities of the diagnosis software Pépite, which establishes an individual cognitive profile of the students in elementary algebra. We designed an interface to allow teachers to generate automatically exercises for differentiated instruction courses adapted to the learning needs of various groups of their classes.

Classification: U73 H23 H33 C33 D73

Keywords: diagnosis and learning; differentiated instruction course in algebra; ICT; elementary algebra