

ZMATH 2016c.00850

Pino-Fan, Luis R.; Godino, Juan D.; Font, Vicenç; Castro, Walter F.

Key epistemic features of mathematical knowledge for teaching the derivative.

Tso, Tai-Yih (ed.), Proceedings of the 36th conference of the International Group for the Psychology of Mathematics Education “Opportunities to learn in mathematics education”, PME 36, Taipei, Taiwan, July 18–22, 2012, Vol. 3. Taipei: National Taiwan Normal University. 297-304 (2012).

Summary: In recent years there has been a growing interest in studying the knowledge that mathematics teachers require in order for their teaching to be effective. However, only a few studies have focused on the design and application of instruments that are capable of exploring different aspects of teachers’ didactic-mathematical knowledge about specific topics. The present paper reports the results obtained following the application of a questionnaire designed specifically to explore certain key features of prospective, higher secondary-education teachers’ knowledge of the derivative. The first part of the paper describes the design of this questionnaire.

Classification: I49 D39

Keywords: derivative; mathematical knowledge for teaching