

ZMATH 2015f.01049

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Using a classroom response system for promoting interaction to teaching mathematics to large groups of undergraduate students.

J. Comput. Math. Sci. Teach. 34, No. 3, 249-271 (2015).

Summary: This work describes the design and evaluation of a proposal to use Classroom Response Systems (CRS), intended to promote participative classes of Mathematics at University. The proposal is based on Problem Based Learning (PBL). The outcomes show that Problem Based Learning (PBL) is a relevant strategy in order to construct mathematical teaching-learning activities. These activities aimed to broaden the undergraduate students' mathematical experience by guiding their current deductive and algebraic conception towards an inductive and empirical one. In this context, it is proved that CRS allows establishing a fluid lecturer-students communication. The strategy generates a working atmosphere that students like and leads to greater learning compared to what is obtained using conventional university teaching. In addition, the proposed methodology has a very wide scope, so it might be used for the teaching-learning of other disciplines different than mathematics.

Classification: U75 D45 C75

Keywords: classroom response system; problem-based learning; activities; undergraduate mathematics; mathematical experience; lecturer-student communication; interaction