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Abboud-Blanchard, Maha; Chappet-Paries, Monique

Teachers' activity in dynamic geometry environments. Comparison with a session in traditional environments.

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From the introduction: Research about information and communication technologies (ICT) has focused in priority, over the past few decades, on the potentialities and limits of these technologies for the mathematics students' learning. There were relatively few studies about teachers' practices in these environments. Over the past few years, we witness an increasing tendency in the research to take into consideration the teacher/teaching dimension in the use of ICT, given its influence on the students' learning. The studies related to this dimension drew frequently on theoretical frameworks and methodologies which are developed in traditional non technological environments. Our current research aims at analyzing the activity of an ordinary teacher using a dynamic geometry system. It is based on the double approach theoretical framework defined in [*A. Robert* and *C. Hache*, ibid., 23–73 (2013; ME 2014a.00303)] and the related methodological tools. We aim to cross-analyze the results of the analysis with those of a study, which uses the same theoretical framework, for a similar session in a paper and pencil environment. This cross-analysis allows us to identify in teachers' practices what seems to be common and what seems to differ from one environment to the other.

Classification: U50 U70 C70 G40
Keywords: dynamic geometry software; paper and pencil problems; teacher's practice; geometry; student-teacher interaction