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Designing Geometry 2.0 learning environments: a preliminary study with primary school students.

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Summary: The information and communication technologies of Web 2.0 are arriving in our schools, allowing the design and implementation of new learning environments with great educational potential. This article proposes a pedagogical model based on a new geometry technology-integrated learning environment, called Geometry 2.0, which was tested with 39 sixth grade students from a public school in Madrid (Spain). The main goals of the study presented here were to describe an optimal role for the mathematics teacher within Geometry 2.0, and to analyse how dynamic mathematics and communication might affect young students' learning of basic figural concepts in a real setting. The analyses offered in this article illustrate how our Geometry 2.0 model facilitates deeply mathematical tasks which encourage students' exploration, cooperation and communication, improving their learning while fostering geometrical meanings.

Classification: U73 G43

Keywords: technology-integrated learning environments; teacher's role; figural concepts; geometry teaching; communication; primary mathematics education

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