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## Teaching Proposal for Greek Primary School Geometry with the Use of an Adventure 3D Game

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### Abstract

This paper proposal presents the research team's effort to approach a more creative and modern way of teaching based on a three-dimensional educational game. ? game launched at the University of Piraeus, aiming to provide an attractive means for pupils to cultivate mathematical competence. It is a teaching proposal for the six (6) grades of the Greek Primary School. The scientific team of the project is trying to make an innovation for the Greek Education and formulates a teaching proposal in this field. The proposal concerns "Geometry" and how pupils 6-12 years old learn to use them in their daily life. The game-based teaching - guiding pupils to learn in a fun way and solve geometrical problems. The game was tested on pupils in four different primary schools around Greece. Then a questionnaire was distributed to the pupils and they responded to it. According to their responses, pupils prefer play-based teaching Geometry, they learn easily and enjoyably and learn more by playing. The aim is to extend it to all subjects of Mathematics and all levels of education and make it the main teaching method for all pupils in all levels Greek schools. A demonstration of the game is provided.

**Keywords:** Digital Gamebased-based Learning, Distance Learning, Differentiated Learning, Guided Discovery Learning.