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"FROM PERCEPTION TO DEDUCTION AND MODELING: THE CHALLENGE OF THE EUCLIDEAN GEOMETRY"

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ABSTRACT

Reproducing geometric figures that we observe daily is a complex task that students at the age of 14-15 years old face and most of the time are stuck at this point. Panaoura et.al. (2009), confess that such a mission of passing from visualization level of Geometry to the deduction level is difficult. This paper is suggesting a strategy for students to follow in drawing and reproducing Euclidean geometric figures; the strategy is analyzed on Van Hiele Scale and Kuzniak scale to support its validity. This strategy trains the student to use transverse competencies and integrate between multilevel information thus focusing on the 4 concepts of Perception, Deduction, Modeling and Problem Solving. Convinced with the existing challenge, the paper considers an example to justify the profitability of the strategy in a structured sequence.

KEYWORDS: Deduction, Development of Geometry Skills, Euclidean Geometry, Modeling, Problem Solving