

How Would the Arithmetic of Infinity Methodology Affect Students' Beliefs of Infinity?

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Abstract

This study investigates the effect of a new methodology of the mathematical infinity on students' beliefs of it. A group of 25 students (grade 12) participated in the study considering traditional views on infinity in mathematics and then recently introduced to "*Arithmetic of Infinity*" methodology proposed by Yaroslav D. Sergeyev. The students were subject to an intervention presenting this methodology which is new to them and different from the classical one. A pre- & post questionnaires were administrated to check its effect. Results showed that the majority of students had positive beliefs of infinity after being exposed to this methodology.

Keywords: Arithmetic of Infinity, beliefs, grossone, infinity, students' perception of infinity.