LEARNING FROM ANCIENT PEOPLE…

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The subject of this poster presentation has a deep connotation in the today research attempt to rethink mathematical representations (Shaffer & Kaput, in press). It is no intention of this study to provide with answers or explanations, but to consider new perspectives that may emerge from research of representational infrastructure. In order to gain a picture of the complex nature of modern mathematics representations it is approached a comparative analysis of the power of ancient people representations and today computer simulations.

With an eye on the complex educational system and its social requirements (Schwartz, 1999) this study aims to contribute to the literature on psychology of mathematics education by shedding a new light on how a modern representational model could miss important aspects of mathematics conceptual understanding. I intended to broaden the vision through a transition from heuristic inquiry to a phenomenological retrospective reflection in thinking modern mathematics representations used in teaching.

The poster will present a parallel between ancient people mathematical images and the modern computer simulations of mathematical concepts. Through visual representations and marked questions, I describe the following: abstraction of the physical referents into schematic representational infrastructures, modern tendencies of representational infrastructures and the apparent similarities of the ancients tools and the modern computational devices in thinking the same mathematics. The poster, in a pictorial format, will reevaluate the idea of evolution reflected in the new mathematical representations and will repost the question for the necessity of a new representational model in teaching mathematics and for a new formalization.

References

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