

ZMATH 2010f.00403

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Research on mathematics education.

ZDM, Int. J. Math. Educ. 42, No. 3-4, 325-336 (2010).

Summary: This study addresses aspects that should be considered in every investigation concerning the reality of the subject being investigated, which in turn provide the basis for the procedures adopted to carry out the research. It speaks about the analysis of the procedures chosen to carry out the research. It is assumed that this care should be taken by the researcher at the moment the research procedures are being defined and made explicit. It is argued that the consonance between the ontological and epistemological dimensions of “what” and “how” to investigate the subject of investigation confers a degree of confidence to the research findings. The search for that confidence transcends analyses based only on calculations and explanations of methodological procedures, regardless of how well founded they are. This study addresses mathematics education specifically, adopting a phenomenological perspective. It is focused on the constitution of mathematical idealities and of mathematics as a science under the perspective of the Husserlian phenomenological conception of reality and knowledge. Characteristics of a phenomenological pedagogy are presented, which is carried out through work that is always intentional, with the educator taking account of what occurs with himself/herself, with the life world of the school, and with the student. The student is seen as a person and as being with others, his/her classmates, and the theme is addressed in the context of the field of inquiry under focus, with the teacher and with his/her “surroundings”.

Classification: D20 E20

Keywords: research; ontology; epistemology; phenomenology

doi:10.1007/s11858-010-0246-9