

ZMATH 2012e.00252

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Reading and writing in the construction of mathematical knowledge in the high school. (O ler e o escrever na construção do conhecimento matemático no ensino médio.)

Bolema 26, No. 42B, 513-534 (2012).

Summary: The main goal of this study was to investigate the utilization of different strategies of reading and writing in mathematics teaching at the high school level, and of instruments the students could use to externalize their perceptions during the teaching and learning process. A qualitative research methodology was used, with interpretative analysis of the activities and the proposed instruments, which were organized in a portfolio book. The formulation and the application of the research, as well as the analysis of the results and the conclusions, were based on Vygotsky's historical-cultural approach and on other studies regarding mathematical language and the utilization of reading and writing in mathematics classes. The categories that emerged from the analysis of the data were the construction of mathematical knowledge, semantics of the mathematical terms, values and the potentiality of the activities. Considering all the categories, the results indicate that the process can make the relationship among teacher and students more interactive and effective for the construction of mathematical knowledge.

Classification: C54 C74 A30

Keywords: reading and writing; mathematics in contexts; high school mathematics; historical-cultural approach; portfolio book