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de Costa Trindade Cyrino, Márcia Cristina; de Oliveira, Hélia Margarida

Algebraic thinking through the basic education in Portugal. (Pensamento algébrico ao longo do ensino básico em Portugal.)

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Summary: We identify strategies and types of algebraic thinking used by three students of different levels of basic school level in carrying out of same set of tasks. The goal was to relate the types of algebraic thinking used with the learning aims presented in the official documents of Portuguese curricular orientation but without forgetting the students' levels. The process of collecting data was done in a school in Lisbon through the application of four tasks accompanied by interviews. We organized the types of algebraic thinking expressed by the students in three main categories: generalized arithmetic, functional thinking and modeling, and also in subcategories which emerged during the process of data analysis. This research suggests that students from different school grades used different types of algebraic thinking in spite of using similar resolution strategies.

Classification: C30 H20 F40 F50 I20 M10

Keywords: algebraic thinking; strategies; types of algebraic thinking