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**An experience of social rising of logical tools in a primary school classroom: the role of language.**

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Summary: In this paper we explore the relationship between language and developmental processes of logical tools through the analysis at different levels of some 'linguistic-manipulative' activities in a primary school classroom. We believe that this kind of activities can spur in the children a reflection and a change in their language representation. Mathematical logic and educational psychology act as framework for the research. The teaching experiment regards the procedural aspects of the language and it is based on the construction of a socially agreed language describing the steps of a 'kid-robot' in a room. By a qualitative analysis of the activities and of the a posteriori interviews based on the Explication Interview method, we find out four Main Topics which show how the children choose strategies to solve a problem, using the constructed language. Moreover in the activities we can observe what Vygotskij defines the shift from interpsychic to intrapsychic during social activities.

*Classification:* C32 C52

*Keywords:* logical tools; object language; procedural language; social interaction; symbols production; primary education; grade 4; educational psychology; linguistic skills; problem-solving strategies