

EARLY INTRODUCTION TO ALGEBRAIC THINKING: AN EXPERIENCE IN THE ELEMENTARY SCHOOL

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This report focuses on the early introduction to algebraic thinking in students of elementary school, based on a teaching model that incorporates two access routes; proportional reasoning and generalization processes.

The research incorporates the idea of Zone of Proximal Development (ZPD) of the Vygotskyian perspective of learning; this is achieved by a determination of the zone of current development through application of a questionnaire and ad hoc interviews.

A teaching sequence was developed and additional clinical interviews with teaching, as a means to promote the ZPD.

In order to evaluate the evolution toward the first algebraic ideas, a final questionnaire was applied with ad hoc interviews.

The results reveal that students are capable to understand the ideas of proportional variation, discover a pattern and formulate a general rule, as well as understand problems that involve a functional relationship, as a consequence of their transition from additive to multiplicative thinking.

References

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