

INTERACTIVE MULTIMEDIA AND PROBLEM SOLVING ON PROPORTIONALITY

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Research in the domain of the acquisition of mathematics concepts has shown that one of the critical aspects of that knowledge lies in the resolution of problems of proportionality.

Interested both in a better understanding of the reasons underlying the difficulties detected in the acquisition of the model of proportionality and in trying to find possible ways to aid its construction by the students, a study was carried out in a real classroom context.

The school, for various reasons, leads students, when confronted with exercises, to pay attention solely to coming up with an answer that might be valued, that is, mechanically apply the algorithm previously presented by the teacher, without placing any effort into understanding the underlying proportionality concept.

Given the advantages that interactive programmes can introduce in the teaching/learning process, an interactive multimedia programme was developed in which the authors try to privilege the acquisition of the model as to the algorithms of resolution.

This study is still in its developmental stage and in spite of the results already obtained, the aim of this paper will be to discuss the computer programme itself. This discussion aims at contributing towards the perfecting of the programme, and especially: the way in which one tries to conceptualize the model from concrete examples; the way students can solve the set of problems which the programme contains; the relationships between the previous two; the interactive nature of the programme as it pertains the resolution advanced by the student.