

A TYPOLOGY OF TEACHERS' INTERVENTIONS IN STUDENTS' MATHEMATICAL WORK IN THE CLASSROOM

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Teachers' interventions during pupils' engagement with a mathematics task in the classroom affect substantially the mathematical meaning constructed by the latter. The relevant research can be divided in two major groups. The first includes studies which look at the consequences of teachers' interventions in either the mathematical meaning or the way children think and behave (e.g., Kaldrimidou et als., 2000, Salin, 2002). In the second group belong studies which examine how teachers intervene in their pupils' mathematical work in the classroom, tracking down some prominent features of these interventions (e.g., Sensevy, 2002, Tzekaki et als., 2001).

In the present study, a categorization of teachers' interventions in mathematics was attempted and then used to analyze teaching episodes. Based on the available research, three distinctive categories of interventions were identified: re-setting the problem, providing clues and help, and imposing a solution. The data imposed a further division of each of these categories into three sub-categories.

The data came from a large project focusing on the mathematics teaching in Greek classes of 6 – 15 years old and aiming to introduce pupil-centered teaching approaches to the rather traditional, still teacher-centered, Greek mathematics classrooms. The results of the analysis suggest that the teachers' interventions, which dominated in mathematics, are of a very directive character and often initiated by the teacher, hence invalidating students' initiatives.

References:

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