STUDENTS' PROCEDURES ON MULTIPLICATION TASKS

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In the context of a teaching experiment it was carried out a research in a third grade class on students' understanding of multiplication. This poster presents the procedures students used to solve a set of tasks specially designed to foster multiplication in the context of number sense development.

A key aspect of learning multiplication is the transition from the use of additive procedures to multiplicative ones. We can identify research evidence on key conditions that support this transition: a certain conception of 'number', 'sum', 'product' and properties of operations on the one hand, and the mastering of specifics skills and basic facts on the other (Verschaffel, Greer, & De Corte, 2007). In addition curricular guidelines underline that learning multiplication should be anchored in a perspective of number sense development (Treffers & Buys, 2008).

The first author of this proposal conducted a research in the context of a teaching experiment developed in collaboration with the primary teacher of a third grade class. Having as background the idea of hypothetical learning trajectory (Simon, 1995) the team developed a set of multiplication tasks that where implemented by the classroom teacher, in some mathematics lessons, along eight months.

This Poster will present a sequence of tasks and the procedures that students used to solve them. It will also present a discussion that relates the students' procedures with the contexts and numbers present in the tasks. The information will be presented in a graphical format that includes figures with the tasks and the corresponding students' procedures.

References

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Verschaffel, L., Greer, B., & De Corte, E. (2007). Whole number concepts and operations. In F. Lester (Ed.), *Second handbook of research on mathematics teaching and learning: A project of the NCTM* (Vol. II, pp. 557-628). Charlotte: Information Age Publishing.

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