

Development of an Educational Tool to Teach Primary School Pupils Multiplication Tables

Suzanne Smith¹, Angus W.D.T. Steele¹, Johan du Toit² and Mariette Conning¹

Abstract

We present an educational tool that helps to teach primary school children their multiplication tables in a fun, interactive way. The design consists of a floor mat with numbers 0 - 9, to implement multiplication tables from the $1\times$ to the $12\times$ multiplication table. The mat is connected to a console which controls the system and displays the inputs from the mat. The numbers on the mat are activated by the children jumping on the numbers in sequence to enter a sequence of results for a given multiplication table. The first prototype, manufactured using low-cost and accessible components for both the mat and the console, proved to be functional and was successfully tested in a local primary school environment. The potential of this educational tool for improved mathematical learning for pupils from Grade 1 to Grade 4 is evident, and has sparked interest in further development of interactive educational mat-based tools.