

A STUDY ON THE EFFECTS OF EDUCATIONAL MATERIALS ON TEACHING MATHEMATICS

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With the rapid technological development of the recent decades, developing students' abilities of reaching information, problem solving and discovering has gained a considerable importance. The ability of problem solving is regarded among the main gains of mathematics lesson rather than the other lessons.

Teaching techniques employed in the field of mathematics teaching are generally based on the classical methods. The technique used is the one in which the lecturer teaches the subject, the learners participate in the teaching process, and the lecturer assesses the students. It is a widely accepted belief that, together with the classical methods applied, using educational technologies in order to support the students' learning process, enhancing their interest in the lesson, and encouraging them for doing research would substantially contribute to their learning process. The abstract nature of mathematics makes it distinct from other lessons. In this connection, the use of suitable materials allows students to concretize the lesson.

The aim of the study was to comparatively examine the effects of classical method and educational technology on the academic skills of the students. To that end, in 2009-2010 educational year, two groups of students at the same grades were chosen from Sakarya Çamlica Merkez Primary School and Çamlica Yesiller Primary School (Turkey). Then, one of the groups was taught mathematics via the classical methods and the other one was taught mathematics via the materials designed by the educational technologies. At the end of study, the student groups' academic skills were compared using an 11- item achievement test which was developed by the researchers and applied to the students both as a pretest and a posttest. The findings of the study indicated that, the use of the materials designed by the educational technologies was effective on the academic skills of the students.

Keywords - Educational Technology, Mathematics Teaching, Use of Educational Materials.