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Motivation for learning mathematics: How to show students that mathematics is interesting, useful and important?

Abstract

Numerous theoretical frameworks try to explain the role which motivation has in the process of learning, and one of the most important modern approaches is Expectancy-value theory, which was formulated by Eccles, Wigfield and their associates (Eccles et al, 1983; Eccles, 2005; Eccles & Wigfield, 2002; Wigfield & Eccles, 2000). The main assumption of this model is that learning behavior is mostly influenced by motivational beliefs: expectation of success and subjective task value, which has four components: interest, importance, usefulness and cost.

This model is very applicable in the area of mathematics and many studies have tested its assumptions in this area. Thus, this lecture will focus on current knowledge on motivation in learning mathematics and its influence on educational outcomes, obtained in international studies, as well as in studies conducted in Croatia in which the author has participated. We will also show how these findings can be used in mathematics teaching to increase students' motivation and to show them that mathematics is interesting, useful and important subject.