Multimedia approach in teaching mathematics - example of lesson about the definite integral application for determining an area.

Summary: This article presents the importance of using multimedia in the math classes by an example of multimedia lesson about definite integral and the results of the research carried out among the students of the first years of faculty, divided into two groups of 25. One group had the traditional lecture about the definite integral, while the other one had the multimedia method. The main information source in multimedia lectures was the software created in Macromedia Flash, with definitions, theorems, examples, tasks as well as in traditional lectures but with emphasized visualization possibilities, animations, illustrations, etc. Both groups were tested after the lectures. Students from the multimedia group showed better theoretical, practical and visual knowledge. Besides that, survey carried out at the end of this research clearly showed that students from multimedia group were highly interested in this way of learning.

Classification: I55 R25 C75

Keywords: integral calculus; visualization; computer software; technology integration; multimedia learning; multimedia lessons; definite integral; area; tertiary education; empirical investigations

doi:10.1080/0020739X.2010.519800