

TEACHERS' VIEWS ON STEM EDUCATION IN SECONDARY MATHEMATICS CLASSES

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Abstract

The aim of this study is to examine the teachers' views of whether the integration of disciplines of Science, Technology, Engineering, and Mathematics is an effective teaching tool in mathematics education. STEM education allows the theoretical knowledge to be transformed into practice and production. The study was conducted with eight volunteer secondary mathematics teachers working in Seyitgazi, Eskişehir. Within the scope of the study, firstly the researchers presented the theoretical and conceptual background of STEM education, and its interdisciplinary nature to be gained a general STEM perspectives to the participants. Then teachers engaged in the STEM based activities which were prepared by the researchers. At the end of the STEM based activities, the researchers gathered the opinions of the teachers on the use of STEM education in mathematics classes. The finding showed that teachers has specified their positive views that STEM applications help students to demonstrate their creativity through interdisciplinary learning, help them to demonstrate their creativity through learning, focus on problem-solving through brainstorming, develop analytical thinking skills, embody mathematics, and stimulate thinking through everyday life in mathematics classes. On the other hand, they also emphasized the negative aspects of STEM education which are time management problem for applications, classroom management, environmental and administrative problems in classroom activities, material inadequacy and classroom size.

Keywords: STEM Education, interdisciplinary approaches, mathematics teachers.