

ABSTRACT
EFFECT OF BLENDED LEARNING TO ACADEMIC
ACHIEVEMENT

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In this study, the effects of blended learning, which provides more effective learning outcomes gains through enriching today's developing Web Technologies with learning environments, on the middle school level academic achievement and the evaluation of learning environments based on students' views are investigated. This study is carried out with 53 students enrolled in the experimental group in 6A and control group in 6B classrooms during the 2014/2015 educational fiscal year in Milas Sakarya middle school.

The design of the study includes mixed methods, including both features of quantitative through the evaluation of students' projects that they developed during the process of the study and the analysis of results for the academic achievement tests, and features of qualitative methods through the interviews that are conducted with six students at the end of the study. During the seven weeks, the unit of "problem solving, computer programming and development of Software product", covered in Educational technologies and Software course, is taught through blended learning supported with enriched web technologies (such as video-conference, Teaching Management System, Discussion blogs , etc.) to the experimental group, whereas the control group was given access to all these enriched contents that are presented to the experimental group only during the classroom environment through traditional teaching environments.

In this study, academic achievement test, product evaluation form, and qualitative interviews are used as data collection sources. During the data analysis phase, while independent t test, frequency and ANOVA tests are done for the quantitative data, content analysis is conducted for the analysis of qualitative interviews.

As a result of this study, it is concluded that blended learning environment had generated a significant difference in students' academic achievement. Also, students stated that they were happy or were satisfied with the enriched contents and interactions in the blended learning environments.

KEY WORDS: Blended Learning, Flipped Classroom, Computational Thinking, Coding, Educational Technologies.