

## AN ASSESSMENT OF VIRTUAL LABORATORY APPLICATIONS IN 9<sup>th</sup> GRADE PHYSICS TEACHING

Özden Karagöz-Mırçık  
Karadeniz Teknik Üniversitesi, Trabzon  
[ozdenkar@gmail.com](mailto:ozdenkar@gmail.com)

Prof. Dr. Ahmet Zeki Saka  
Karadeniz Teknik Üniversitesi, Trabzon  
[azsaka@gmail.com](mailto:azsaka@gmail.com)

### Abstract

The purpose of the study is to assess the effects of the virtual laboratory applications on the academic achievements of students in terms of the performance of teachers, physical conditions and sex in 9th grade physics teaching. The sample of the study consisted of 2 physics teachers working at Gazi Anatolian High School and Prof. Dr. Sabahattin Zaim Anatolian High School in K.Çekmece Istanbul and 86 9th-grade students ( $N_{female}=40$ ,  $N_{male}=46$ ) in the 2012-2013 education term. An achievement test consisting of 17 open-ended questions and observation method were used in the study conducted on the basis of experimental study with pretest/posttest control group. As a result of the study, while a significant increase was expected in the academic achievements of students in the experimental group, it is found that the achievement of female students and their attendance to lesson was higher than male students. Furthermore, it was also seen that female students provided more detailed answers to questions related to the applications. The influence of teachers running the application should be taken into consideration as much as the applications for academic achievement of male students.

**Keywords:** Physics teaching, Virtual Labs, gender, physics teacher.