

## INFLUENCE OF SUPPLEMENTING THE COURSE OF CHEMISTRY LABORATORY WITH THE WEB ENVIRONMENT ON STUDENTS' ATTITUDES TOWARDS THE COURSE

Dr. Duygu BİLEN KAYA  
Dicle University, Diyarbakır, TURKEY

Assoc. Prof. Dr. Behçet ORAL  
Dicle University, Diyarbakır, TURKEY

Dr. M. Tahir KAVAK  
Dicle University, Diyarbakır, TURKEY

### ABSTRACT

The present study examined the influence of supplementing the course of Chemistry Laboratory with the web environment on students' attitudes towards the course. For this purpose, on the web page of <http://www.diclekimyaegitimi.org>, the students were presented the contents of the course of Basic Chemistry Laboratory II. In the study, the pretest-posttest experimental design with a control group was used. The study group included a total of 107 junior students from the departments of Physics Teaching, Chemistry Teaching and Biology Teaching at Ziya Gokalp Education Faculty of Dicle University in the academic year of 2009-2010. The study was carried out with three groups: two of them were the experimental groups, and one of them was the control group. The first experimental group (web-based group), prior to the lesson, examined the experiments transferred into the web environment, and the second experimental group (web-based group) followed the lesson both in the laboratory environment and via the web. As for the control group, the lesson was taught via the demonstration method. In order to determine the students' attitudes towards the course of chemistry laboratory, the "Chemistry Laboratory Attitude Scale" developed by the researcher based on the Physics Laboratory Attitude Scale – which was developed by Nuhoglu and Yalçin (2004) – was used. The research data were analyzed with the package software of SPSS 17.0. The results revealed a statistically significant difference regarding the students' attitudes towards the Chemistry Laboratory in favor of the web-based group. The results revealed a statistically significant difference in the students' post-test scores regarding their attitudes towards the Chemistry Laboratory in favor of the web-based group.

**Key Words:** Web-based instruction, Web-assisted instruction, Chemistry laboratory.