

COMPARISON OF ANIMATION BASED FACE TO FACE EDUCATION AND DISTANCE EDUCATION IN BIOMEDICAL INSTRUMENTATION EDUCATION

Eda Akman Aydın
Gazi Üniversitesi Teknik Eğitim Fakültesi
Elektronik-Bilgisayar Eğitimi Bölümü
edaakman@gazi.edu.tr

Nevin Kahraman
Gebze Teknik ve Endüstri Meslek Lisesi
Biyomedikal Cihaz Teknolojileri Alanı, Kocaeli
nevin.kahraman2@gmail.com

İnan Güler
Gazi Üniversitesi Teknik Eğitim Fakültesi
Elektronik-Bilgisayar Eğitimi Bölümü
iguler@gazi.edu.tr

Abstract

In this study, effect of the course content enriched by two-dimensional visual materials on the success of teaching in face-to-face and distance biomedical engineering education was examined and views of the students regarding their attended training environment were taken. For this propose, “Human Respiratory System and Related Measurements” subject of Biomedical Instrumentation Course is lectured to the two different groups of students of Electronics Education in Gazi University by using face to face and distance education methods. Totally 25 students, 9 and 16 students attended to the study in the web based education and animation assisted face-to-face education, respectively. Before training, a readiness test related to demographic characteristics, computer and internet usage and interest in the biomedical field and a pre-achievement test with the aim of determining the level of knowledge about the subject was applied to both of the groups. After training, a preferences and satisfaction survey regarding their participation education type and a post-achievement test with the aim of determining level of achievement was applied to both of the groups. In the study, Mann Whitney-U test was used for the evaluation of questionnaire results and Wilcoxon related two-sample test was used for the evaluation of pre and post achievement tests. A significant difference was not observed between two groups in terms of satisfaction. Comparisons of the achievement tests indicated that achievement level of the group attended to the animation supported face to face education was higher than the group attended to the web based distance education.

Key Words: Animation supported course, biomedical instrumentation, distance learning, web-based education, face-to-face education.