

Online Education at Universities during the Covid-19 Pandemic: A Study on the Biology Laboratory Courses

Hakki Çakır & Aşlı Görgülü Arı

Yıldız Technical University

Abstract

Courses were completed by online meetings for the spring term of 2020 in most of the world due to Covid-19 pandemic. It was an unexpected situation and both instructors and students were not familiar with the online learning. Furthermore, applied courses like laboratories had more difficulties in an online learning since physicality has important functions in these courses. The quality and deficiencies of such courses given at universities in an online way are not known well. Based on this context, the aim of this study is to determine the difficulties faced by the students and the instructors for the biology laboratory course as an applied course, and to reveal their experiences and suggestions in this process in which online education was started for the first time. In the study, case study design, which is one of the qualitative research methods, was used. The participants of the study were determined through easily accessible situation sampling, which is one of the purposeful sampling methods. A total of 64 pre-service science teachers from a public university and 9 biology instructors from several public universities participated to the study. Data was gathered through semi-structured interviews, which was held with the pre-service science teachers and biology instructors. The data was analyzed by content analysis and also descriptively. With this study, it is expected to reach data that may increase the quality of the online biology laboratory course.

Keywords: quality of online education, biology laboratory course, pre-service science teachers, biology laboratory instructors.

*This research was produced from first author's PhD thesis and supported by Scientific Research Project Number SBA-2021-4253 within the University Project of Supporting Program for Normal Research Project in Yıldız Technical University.