Abstract

In education in recent times, especially during the outbreak of Covid 19, the interest of education professionals has become to search for the most appropriate ways to use technology as a motivational tool in education. The use of gamification in education is very important because it works to arouse students' interest and reduce learning time. The current study aims to determine the effects of applying a virtual learning environment based on gamification on improving the achievement and practical skills of deaf students in mathematics at the primary stage in Egypt. Java, JavaScript, PHP, CSS, HTML, MSQL, and AppServ, are used to develop the application. The study followed the quasi-experimental research method. The application was applied to students from Al-Amal School for the deaf and hard of hearing in Damietta - Egypt. The study used two tools: an achievement test, and a test of practical skills in mathematics after rationing. The value of the reliability test was more than 0.89. The t-test was used to analyze the students' scores in the pre- and post-test, and the two null hypotheses were tested at the significance level of 0.05. The results showed the effectiveness of the virtual learning environment based on gamification in developing the achievement and practical skills.
Development of a Virtual Learning Environment based on Gamefication to Improve Mathematical Concepts and Skills for Deaf Students.

References


Index Terms

Computer Science

Information Sciences

Keywords

Virtual learning environment; adaptive learning environment; mathematic concepts; mathematic skills; deaf students. Gamefication