ABSTRACT

Mathematics is an important at the elementary to high school level. However, there are still some students who view math as a scary subject, causing low student scores in math. Observations at SD Negeri 3 Larangan showed that the average daily score of grade 6 students decreased from 80 in the 2021/2022 school year to 75,2 in the 2022/2023 school year. The cause of this low score is students' lack of understanding of basic math concepts, such as multiplication material. Based on this, this research aims to build a frontend for a multiplication learning application with augmented reality technology using the design thinking method. Design thinking is an effective method for designing user interfaces because it focuses on the problems and needs of users. In addition, this research also applies quantitative methods to observe students' daily grades and qualitative methods used in the empathize stage of design thinking. To measure the impact produced by the application design with augmented reality technology, testing was conducted on students with the experimental method of one-group pretest-posttest design. The results showed positive results. Through the Wilcoxon test, the pretest and posttest scores showed a significant difference in improvement. While using UEQ, all scales of UEQ showed positive results.

Keywords: math, user interface, augmented reality, design thinking, one group pretest-posttest design.