DEVELOPMENT OF ICREATE: AN AUGMENTED REALITY APPLICATION ON ENGLISH VOCABULARY FOR ELEMENTARY SCHOOL STUDENTS


ABSTRACT

The main objective of this study was to develop the iCreate application for the elementary students in order (1) to refine a prototype of the iCreate application based upon feedback from experts and users, (2) to compare pre-test and post test scores of students who studied with the iCreate application, (3) to compare post test scores between female and male students who studied with the iCreate application, and (4) to examine students’ attitudes toward the iCreate application.

This research and development were studied using mixed methods. The sample population was composed of 50 fourth-grade students from Nangammitraprap School, Sa Kaeo Province, Thailand. The selection method was non-probabilistic sampling that was selected based on characteristics of a population and the objective of the study. The data collecting instruments were a proposed augmented reality iCreate application on a mobile device for learning vocabulary, a pre-test and a post test for the lesson, and an attitude evaluation form. The researcher named this proposed application as the iCreate application. The collected data was analyzed using various statistical calculation methods: mean value, standard deviation, paired sample t-test, and independent samples t-test.

The findings were as follows: (1) The iCreate application was developed and refined based upon feedback by three experts and 50 target users. (2) The post test scores were higher than the pre-test scores by a statistically significant difference by the level of 0.05. (3) No statistically significant difference for post test scores was found between female and male students. (4) Majority of target users were satisfied after using the iCreate application on English vocabulary learning.

Keywords: AR; Augmented Reality; Elementary School, English; Mobile Application; Vocabulary