## **RESEARCH PAPERS**

# THE EFFECTIVENESS OF A PROGRAM BASED ON BLENDED LEARNING IN DEVELOPING THE SKILLS OF PRODUCING THE AUGMENTED REALITY TECHNOLOGY AMONG STUDENTS OF SAUDI UNIVERSITIES

By

#### AISHA BLEYHESH AL-AMRI \*

#### FAYZAH MOHAMMAD ALMAGHRABI \*\*

\* Department of Educational Technology, Taiba University.

\*\* Department of Education at UMM AL-QURA University, Saudi Arabia.

Date Received: 10/10/2019 Date Revised: 08/02/2020 Date Accepted: 14/04/2020

#### **ABSTRACT**

The study aimed to investigate the effectiveness of a program based on Blended Learning in developing the skills of producing the Augmented Reality Technology among student of Saudi Universities. In order to achieve the objective of the study, descriptive analysis and quasi-experimental design was followed. The study sample was represented in (64) of female students who were enrolled in the Program of Education at Saudi Universities, for the second semester of the academic year 2018/2019. The research tools and materials included were: List of skills for designing the Augmented Reality technology, a cognitive achievement test, productive evaluation card, and learning materials, which was a program based on Blended Learning to design the Augmented Reality technology. In order to obtain the study results, the researchers used SPSS statistics. The study concluded the following results: There were statistically significant difference at the level of significance  $(0,05\geq)$  between the two mean scores of the experimental and control group students in the post measurement of the cognitive achievement test of the skills of designing Augmented Reality, in favor of the experimental group. There were statistically significant difference, at the mean level of significance (0,05≥) between the average scores of the experimental and control groups on indicators of evaluation of achievement projects in favor of the experimental group. In the light of the findings of the study, a number of recommendations were presented, including the following: Using of the Augmented Reality application to become the standardized version adopted for developing electronic content and preparing teachers to meet the needs of the community, and encouraging faculty members to produce and utilize the Augmented Reality application in teaching all the courses of the different specialties at the university levels.

Keywords: Skills of the Augmented Reality Application - the Program of Innovation, Entrepreneurship Management Projects.

### INTRODUCTION

Recent trends in education technology have contributed to the emergence of new and sophisticated teaching and learning techniques that have had a significant impact on positive changes and developments in the methods of communicating scientific information to students, as well as the content and format of the curriculum, and the techniques produced by the modern trends of Augmented Reality (AR) technology, whose use

generates the need for further development and adjustment in all areas, especially in education so that the individual can co-exist and integrate with the modern lifestyle. Modern and current studies are present studying these contemporary techniques in the field of education. Augmented Reality technology is an extension of virtual reality technology. Novell (2010) defines it as "a system that combines virtual reality environments with real

environments through special techniques and methods."