The effect of the relationship between 3D simulation patterns in Augmented Reality and the use of the demonstration on developing skills performance of female graduate students

Abstract:

The objective of the current research is to determine the impact of the relationship between the patterns of three-dimensional simulations (procedural, posture, processing) in augmented reality and the use of the demonstration (its existence, absence) on the development of the skilled performance of graduate students, and the sample of the research consisted of (٦٠) graduate students in the academic year -٢٠٢٠ ٢٠١٩at the Faculty of Education al-Azhar University.

The research sample was distributed to ٦experimental groups, each of which included ١٠female students depending on the experimental design of the research.

To achieve research objectives, the researcher developed a set of tools that are inhaled into experimental processing tools as well as measurement tools, and tools in general are:

•Augmented reality software developed with suggested simulation patterns.

•A test of achievement.

•Skill performance note card.

The researcher followed the development research approach, which includes the processes of educational program development, and this method is to apply the systemic development of the program and to be followed by the use of the model "Mohammed AttiaKhamis" for educational design (٢٠٠٣), and a number of forms and tables have been used to clarify the procedures of research.

The results of the research showed that:

•There are statistically significant differences at ٠.٠٥between the average grades of female students of experimental groups in relation to the skill performance of the targeted skills and the achievement test of those skills؛

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•There are statistically significant differences at ٠.٠٥between the average grades of the experimental group students in relation to the skill performance of the targeted skills and the achievement test of those skills؛

In light of the findings, the researcher recommends the following recommendations:

•Use the hands-on statement when providing information to students. This is because simulation patterns are mostly based on discovery and real system simulation.

•Use procedural simulation mode when working on augmented reality tutorials such as educational simulation games .

•Use the mode simulation pattern when working on augmented reality educational simulations based on the ٢D environment such as network installation simulations and operating systems in computer science.

•Use the wizard simulation mode when working on augmented reality-based augmented reality simulations, such as interactive and interactive educational simulation games.

•Reduce the presentation of simulations without demonstration.

Keyword: 3D Simulation, Augmented Reality, Demonstration, Performance Skills.