

The Effectiveness of Augmented Reality in Developing The Skills of Implementing Men's Sweater Structure Spices

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Abstract:

Given the importance of (designing and preparing patterns) in the clothing industry, as it is the link between design and implementation and the means by which the required design is achieved to be produced and its impact on the subsequent production stages, and because the skills of implementing "men's sweaters" are among the most important skills related to the men's clothing industry, due to the need for precise techniques in all stages of its production, and it requires interactive educational methods that are synchronized between the student and the teacher To achieve quality academic outcomes and prepare graduates for the job market, and to keep pace with the age of technology and the development of educational methods and their connection to technology to suit the contemporary digital generation, we must address the many educational challenges and problems to improve them and increase their effectiveness and efficiency.

The research aimed to design a training program using augmented reality in preparing patterns and techniques for implementing the pieces of men's sweater formation "front openings", and measuring the effectiveness of the training program in obtaining information and acquiring skills, as well as measuring the opinions of trainees towards the program using augmented reality to develop the skills of preparing patterns and implementing the pieces of men's sweater formation. The importance of the research was Contributing to the use of modern learning strategies and methods that keep pace with technological development to raise the efficiency of the educational and training process by presenting scientific content using modern technological methods, contributing to creating an effective and positive role for the learner, and enriching educational content with a virtual reality based on the use of visual stimuli, in designing an educational and training environment based on learning using augmented reality And employing its applications in the field of building patterns and implementing men's clothing. The research relied on a quasi-experimental approach in the procedures and steps of implementing the program and in measuring the information and skills it contains, in addition to a descriptive approach in measuring trainees' opinions regarding the program using augmented reality, The research required the preparation and application of the following tools (pre/post cognitive achievement test - pre/post skill performance test - form to measure the program's suitability for application - rating scale to evaluate the skill test - questionnaire to survey the trainees' opinions about the program using augmented reality), and the validity and reliability of the tools were confirmed on a deliberate random sample of (45) graduates and students of specialized colleges Those with skills in modeling, machine operation, and Sewing skills, but who have not previously studied the program content, concluded that a training program using augmented reality can be designed to enhance cognitive acquisition and impart skills in model building and techniques for implementing men's sweater construction components, There is a statistically significant difference between the average scores of trainees in the cognitive achievement test before and after applying the program using augmented reality in favor of the post-application, as well as the presence of a statistically significant difference between the average scores of trainees for skill performance before and after applying the program using augmented reality in favor of the post-application, which confirms that the program is effective in achieving The knowledge and skills acquired in the program were positive. The trainees' opinions were positive about the program for developing their skills in preparing patterns and implementing the pieces for creating men's sweaters.

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