

An Augmented Reality Based Self-Learning Support System for Skills Training

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Abstract : In this paper, an augmented reality learning support system is proposed to replace the traditional teaching tool thus to help students improve their learning motivation, effectiveness, and efficiency. The system can not only reduce the exhaust of educational hardware and realistic material, but also provide an eco-friendly and self-learning practical environment in any time and anywhere with immediate practical experiences feedback. To achieve this, an interactive self-training methodology which containing step by step operation directions is designed using virtual 3D scenario and wearable device platforms. The course of nasogastric tube care of nursing skills is selected as the test example for self-learning and online test. From the experimental results, it is observed that the support system can not only increase the student's learning interest but also improve the learning performance than the traditional teaching methods. Thus, it fulfills the strategy of learning by practice while reducing the related cost and effort significantly and is practical in various fields.

Keywords : augmented reality technology, learning support system, self-learning, simulation learning method

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