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Paper Title:	Impact of a Game-Based Training System on Medical Technology Students Performance in Urological Surgery Simulation
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Abstract

Technological innovations have become effective alternatives for practice-based education, offering learners immersive environments that simulate real-world scenarios. Despite their advantages, the success of these technologies largely depends on the relevance and appropriateness of the content provided. In specialized fields like clinical technology, mismatched content can diminish student motivation and engagement. This study aimed to develop and evaluate a game-based training system tailored to improve the learning outcomes of medical technology students. Using Unity3D software, the system was designed to focus on essential skills required in the operating room, with urological surgery-particularly procedures involving multiple medical devices-serving as the case study. Ten students, divided into second- and third-year groups, participated in the study. Pre-test and post-test evaluations were administered to measure knowledge improvement. The results indicated an overall increase in participant scores, with third-year students demonstrating significant improvements after using the system. These findings suggest that the game-based training system can effectively enhance learning outcomes, especially for more experienced students. The proposed system shows promise as a valuable educational tool for medical technology training in operating room settings.