An Exploration of the Effects of Virtual Gaming Simulation on Knowledge Retention, Student Enjoyment, Satisfaction and Confidence Levels- A Pilot Study

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Aim/Purpose/Objective: The purpose of this research is to determine the effects that VGS has on knowledge retention, student enjoyment, satisfaction and confidence levels among undergraduate, pre- licensure nursing students. This study builds on the work of Bauman (2013) who highlighted the need to leverage technology in a way that both engages and challenges digital natives. This study also draws on experiential learning theories which focus on the idea of learning by doing, such as Kolb's Experiential Learning Theory (Kolb et al., 2014) and Benner's Novice to Expert Theory (Benner, 1984).

Sample: 92 undergraduate, prelicensure, 2nd semester Med-Surg students

Setting: Public senior nursing program in New York State

Methodology: Mixed Methods, Experimental, Simulation
This randomized-controlled study included 92 undergraduate Med-Surg students who were randomly assigned to a control or experimental group. Students completed a pre and post-test, the Student Satisfaction and Self-Confidence in Learning Scale and the ENJOY scale. Participants also provided qualitative feedback.

Results: Participants exposed to VGS with enhanced gaming elements demonstrated higher levels of satisfaction and self-confidence compared to the control group. The experimental group also demonstrated greater improvement in post-test scores compared to the control group.

Conclusions: VGS with enhanced gaming elements was associated with increased student satisfaction, self-confidence, and improved knowledge retention.

Implications: These findings can inform instructional design and curriculum development in nursing programs and inspire further exploration of technology-enhanced learning approaches in other educational domains.

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