"Game On!" In the Classroom: Evaluating the use of Serious Games for Exam Preparation

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Background & Significance

❖ Evidence supports the use of a serious game to engage students in the classroom but there is insufficient data to support its use with pre-licensure nursing students.

Purpose

❖ The purpose of this study was to evaluate the use of a serious game as a strategy to engage students in a classroom setting.

Methods: Teaching Strategy

❖ As a strategy to engage pre-licensure nursing students in a classroom, a game was designed based on the concept of the television show, The Amazing Race, allowing students to race to three locations, those being the three phases of surgery: pre-operative, intra-operative and post-operative.

❖ The content of the game included topics that were discussed during the didactic course and served as an interactive review for a unit exam.

❖ Students were divided into groups and expected to complete three 'challenges' in order to move the patient through each phase of the surgery.

❖ Challenges included accurately completing case study and NCLEX-RN questions and solving a riddle.

❖ The first group to complete all of the challenges was deemed the winner of *The Amazing Race* game.

Methods: Data Collection

❖ Knowledge was measured using a pre-test given one week prior to the game with results being compared to a post-test given at the conclusion of the game.

❖ Five traditional NCLEX-RN style questions served as the pre- and post-test for one group of students.

❖ The same questions served as the pre-test for three additional groups of students, who then completed a 10-question post-test consisting of next generation NCLEX (NGN)-type questions.

❖ At the conclusion of the game, students completed a survey to indicate their satisfaction with the learning experience.

Analysis

❖ Paired samples t-tests were used to compare students' individual pre-and post-test scores measuring knowledge.

❖ Student satisfaction with the learning activity was measured by a researcher-developed 10-item 5-point Likert-type scale where students rated their agreement to statements about the activity (1=Strongly Disagree to 5=Strongly Agree). Descriptive statistics were used. One open-ended question asking students to share their thoughts about the experience was included.

Findings

❖ There was an increase in scores for the group of students (N=35) who completed the pre-test and post-test consisting of traditional NCLEX-RN style questions, but the increase was not statistically significant (p=.15).

❖ However, there was statistically significant improvement (p=.04) in post-test scores over pre-test scores for students (N=64) completing the test consisting of NGN questions.

❖ The students' satisfaction with the serious game experience was very positive:

	N	Min. actual (Min possible: 10)	Max. actual (Max possible: 50)	M (SD)
Sum	115	14	50	43.05 (6.64)

❖ Students' Comments:

❖ *"It was really fun and made us critically think."*

❖ *"It was fun and I got to apply what I learned."*

❖ *"I enjoyed it and it helped me look at the whole picture of the patients."*

❖ *"The timing and 'race' was somewhat overwhelming.'*

Conclusion

❖ Faculty concluded that using the serious game as an examination review can be an effective teaching strategy for pre-licensure nursing students.