Use of Gaming Strategies as Teaching/Learning Tools in Nursing Education

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Overview: Games are a regular part of students’ lives no matter their grade level. Students report playing games throughout the day on their computers, the Internet and on their cell phones. Using the technology/tools the students find in their worlds can help students feel more comfortable in class, which can help them open up and interact. Although some teachers may use games as part of their teaching strategy in the classroom, most do not and those who do may not be using them to their potential (Marzano 2010). Making learning fun motivates students and helps them to pay attention and stay focused on content in a safe and low risk learning environment. 21st Century students have grown up using technology. This is very different from the way their professors grew up. The average age of nursing faculty is 57 years of age (AACN, 2017), which might explain the gap in the use of gaming technology as a teaching modality. The World Wide Web has had a significant effect on the way that students today think and learn. Prensky (2001) argues that students are used to thinking on multiple tracks at one, and have little patience with linear reasoning or delayed gratification. Using games in the classroom for teaching is one way to shift to a more appropriate learning format for students of the digital generation.

Objectives:

- Reader will understand the use of games as an effective teaching/learning strategy
- Reader will understand strategies for the successful implementation of gaming in the classroom
- Reader will discover the benefit of being able to assess learning from a nontraditional modality

Benefits of Gaming: One reason that games are effective is that bad consequences are rarely serious or lasting. The consequences of poor performance are minimized. There are no consequences for the player personally other than forfeiting or not winning the ‘prize.’ Quiz/exam grades can certainly tell a student if they have failed to learn specific content tested on that quiz/exam, but for a variety of reasons, many students do not make good use of quiz reviews/feedback. There is no realistic way to escape the award of a grade in any class/course, but games can be played in real time in the classroom and allow the student to assess their knowledge for themselves and give them the opportunity to identify their weaknesses before they are formally tested on content. Using games for learning requires the same priorities we already employ for formal assessment: fairness and relevance of the score to the learned material. It is important for the faculty to focus on learning as opposed to who wins the game as the learning must be essential to scoring and to winning.

Strategies for Using Game-Based Learning

- Define the objectives (what you want to be accomplished)
- Determine the game (Jeopardy, Kahoot, Top hat, etc.)
- Design the rewards (immediately available and useful)
- Evaluate the game (fun, ease of play, how long the activity took, integration of learning objectives into the game)
- Administer a pre and post-test on the material to be learned before and after the game

MCPHS University Experience:

In the fall of 2016, faculty integrated Kahoot as a predominant teaching modality in a small, face-to-face, course in human diversity and social policy to students in a nurse practitioner program. Each week the faculty developed 10
to 15 questions that aligned with the course objectives and weekly topics and presented at the beginning of each 3-hour class. The students utilized their cellphones to answer the questions. For each question, the faculty led a class discussion with the purpose of elaborating on the topic while providing opportunity for students to interact, enhance knowledge, ask additional questions, articulate, debate and defend points of view regarding policy and its effect on patient care and clinical practice. Discussions were relevant and interactive often times consuming the entire class period. Faculty provided direction and maintained the focus of the class. Students were motivated and integrated the use of Kahoot in leading class discussion during their own assignment presentations. Another interactive game such as Top Hat was utilized by faculty in a larger pathophysiology and pharmacology course for the undergraduate nursing level students. In the undergraduate level course, the students participated actively and were motivated to attend class each week. The students in both courses provided positive feedback about their learning experiences. The faculty plans to continue to promote the use of gaming in the classroom and to orient new faculty as to the benefits. Formative and summative evaluations will be used to assess the efficacy of gaming strategies as an effective teaching and learning tool.

Summary: Making your classes more interactive can help your student want to come to class and to take part in the class. Giving them a more active role will give them a sense of ownership, and this can lead to students taking more pride in their work and responsibility for their grades. Faculty can adapt a variety of games for academic purposes. Studies show that on average, using academic games in the classroom is associated with a 20%-point gain in student achievement (Marzano, 2010). In classrooms showing gains through the use of gaming, recommendations include:

- **Using inconsequential competition.** Students like to compete so long as the stakes are not high.
- **Target essential academic content.** If the game does not focus on important content, the result will have little to no effect on student achievement and can waste valuable classroom time.
- **Debrief the game.** The point of the game is to provide opportunities for students to examine important content in a lively and enjoyable venue.

Faculty conducted research indicates that games can have a significant effect on student achievement when teachers use them purposefully and thoughtfully.

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**Abstract Summary:**
Games are a part of students’ lives. Students report playing games throughout the day on their personal devices. The use of gaming in the classroom can help the students learn important content in a safe, non-threatening environment while having fun.

**Content Outline:**
Overview

Objectives

Benefits of Gaming

Strategies for Game-Based Learning

MCPHS University Experience

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Edith Claros, PhD
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**Professional Experience:** I have been teaching in a baccalaureate and graduate level nursing education for over 10 years with experience in teaching across the curriculum. I have implemented several active teaching learning strategies in the classroom to engage and motivate student learning.

**Author Summary:** Dr. Claros has presented posters and invited presentations locally and internationally focusing on an array of best practices in teaching and learning related to undergraduate and graduate nursing education.

Second Primary Presenting Author

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**Professional Experience:** Dr. Eliadi has been an educator for over 25 years. She has taught within all levels of nursing education. her scholarly interests include an array of topics focused on promoting teaching and learning in the classroom.

**Author Summary:** Dr. Eliadi is an experienced nurse educator. She has presented orally and thru poster
presentations nationally and internationally. Dr. Eliadi has had a keen interest in promoting interactive teaching strategies and has championed new teaching and learning strategies for the faculty in the School of Nursing at her organization.