



Background:

The change in the NCLEX-RN® test plan in 2013 led to a decline in first-attempt pass rates in many nursing programs. Since many states evaluate programs based on first-attempt pass rates, schools need to find innovative ways to meet programmatic outcomes. Schools of nursing must constantly assess program outcomes to ensure curricula are meeting the needs of the students as well as the community of interest. This means that learning strategies employed must prepare students for licensure exams and entry into professional nursing practice. Strategies developed also need to be adaptable to change in line with the changing NCLEX-RN® blueprint.

Gaming for NCLEX-RN® prep provides an engaging and easily-adaptable format for student knowledge development and retention. It allows for continuous assessment of curricular effectiveness and easily modified activities to maintain compliance with the NCLEX-RN blueprint



Literature Review:

Findings in the literature suggest that coaching can effectively supplement traditional mentoring and promote persistence towards careers. The alignment of games with nursing content promotes learning and increases the probability the knowledge will become part of the students' long-term memory.

Implementation:

- Rotation schedules and scoring sheets were distributed to coaches.
- Two teams competed at each of the 4 gaming stations.
- Each team rotated through every station during the scheduled time frames, competing against a different team at each station.
- Once all stations were completed, scores were compiled. All teams reported back to the classroom at the end of the competition, where scores were reported.
- Each gaming day included a NCLEX-RN® Challenge Game, modeled like a College Bowl™. In this game, NCLEX-RN® -style, multiple-choice questions were projected onto a screen. The theme for the questions was based on the content reviewed with students by their team coach in the weeks prior to the gaming day. Each team had the opportunity to “buzz in” once the stem of the question was read. The team buzzing first had 5 seconds to answer the question. Each NCLEX-RN® Challenge Game used 15 questions per face off. On the final gaming day, a NCLEX Challenge elimination game was held. This was the only gaming activity that day.
- Each gaming day, other than the final day, also included 3 other games. Each of these other games used NCLEX-RN® preparatory material for content. A variety of games were created and implemented over the course of 4 years.
- The most popular and well-received games were those based on television game shows. For example, based on Who Wants to be a Millionaire™, 2 game versions were created: Who Wants to be an Oncology Nurse and Who Wants to be a Neuro Nurse. Other game show themed games included Match Game™: Fundamental Nursing Edition, and The Psychiatric/Mental Health Pyramid Game.

Outcomes:

Coach-led gamification strategies added to the prelicensure baccalaureate nursing curriculum as part of a comprehensive NCLEX-RN® preparation program resulted in improved first-attempt NCLEX-RN® pass rates. The main advantage of the coach-led gamification strategies was the identification of curricular content deficits. These strategies created a positive student learning atmosphere. Student strengths and challenges were exposed in a safe and nurturing environment that fostered content retention. Continued coaching of new graduates for 3 months after graduation shortened the time from graduation to the first attempt, which may have also contributed to the improved pass rates.



Serembus, JF. (2016) Improving NCLEX first-time pass rates: A comprehensive program approach. *J Nurs Reg.* 6(4): 38-44.

Brull S, Finlayson S, Kostelec T, McDonald R, Krenzischek D. (2017) Using Gamification to Improve Productivity and increase knowledge retention during orientation. *J Nurs Admin*;47(9): 448-453.

Dicheva D, Dicheva C, Agre G, Angelove G. (2015). Gamification in education: a systematic mapping study. *J Educ Techno Soc.* 2015;18(3):75-88.

Shellenbarger T, Robb M. Technology-based strategies for promoting clinical reasoning skills in nursing education. *Nurse Educ.* 40(2): 79-82.

Verkuyl M, Hughes M, Tsui J, Betts L, St-Amant O, Lapum JL. (2017) Virtual gaming simulation in nursing education: a focus group study. *J Nurs Educ.* 2017;56(5):274-280.

Pront L, Müller A, Koschade A, Hutton A. (2018). Gaming in nursing education: a literature review. *Nurs Educ Perspect.* 30