

Employing QSEN KSA's as a Framework for a Pre-Licensure Course Utilizing Gamification as a Teaching Strategy

P. Ann Solari-Twadell RN, PhD, MPA, FAAN, Associate Professor - Stacey Zurek MS, PhD, Instructional Designer
 Marcella Niehoff School of Nursing, Loyola University Chicago

Background / Scope

Quality and Safety Education for Nurses (QSEN) is designed to identify and reinforce knowledge, skills and attitudes (KSA's) that a student nurse needs to integrate in order to continuously improve the health care environment as a practicing nurse. Learner-centered pedagogy that fosters creativity, critical thinking, communication and collaboration is called for in order for student nurses to adopt identified KSA's.

Gamification is an innovative learner-centered pedagogy that uses "game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems. (Kapp, 2012, p. 10). Gamification influences learning through enhanced learner motivation and engagement.

Collaborative Testing is a method of engaging students which has been suggested to increase critical thinking and augment the learning process.

Through combining interactive learner-centered teaching strategies, select KSA's can be practiced in the classroom setting. Early introduction to KSA's in the curriculum allows for continual reinforcement in subsequent course offerings leading to better comprehension and application of the KSA's. Repeated opportunities to practice the skills identified through QSEN support integration into a students knowledge, skills and actions.

Method

QSEN competencies and KSA's were used as a framework for organizing course content of a three credit required sophomore nursing course addressing individual, family and community health. The purposes of this study was to: 1) Employ QSEN to introduce a culture of professionalism, 2) Demonstrate gamification as a strategy to teach QSEN content, and 3) Stress the significance of collaboration as a component of quality nursing care through the use of Collaborative Testing.

Gamification was used primarily for out-of-class activities in a flipped classroom approach to support student pre-reading and preparation for applying content knowledge in class. In-class teaching strategies focused on critical thinking initiatives in a collaborative learning environment that included: group presentations, quizzes, small group work, case analysis, and role playing. Gamification strategies were used to foster increased engagement with in-class applications of content knowledge.

Collaborative Testing, used as a means of evaluation, provided experiences for students to practice the art of collaboration in an environment where critical thinking is vital.

A post-test to garner student feedback related to collaborative testing and gamification was administered after two course exams. The post-test consisted of twenty statements that used a Likert scale with response choices of *Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree*.

Results

Post Test Results

4. Collaboration is an important skill for nurses.	Strongly Agree + Agree (n= 62) 100%	Total Responses (n = 62) 100%
10. Members of my group listened respectfully to other group members ideas.	Strongly Agree + Agree (n = 60) 97%	Total Responses (n=62) 100%
17. Successfully completing quests in the Quest Lab increased my confidence to apply course content.	Strongly Agree + Agree (n = 20) 32%	Total Responses (n=62) 100%

The overall response rate was 93% (n=62). The statement that yielded the strongest outcome was the understanding of the importance of collaboration in nursing followed by the acknowledgement and significance of respect in working with peers. The use of gamification through the online interactive Quest Lab was reported as having less effectiveness in supporting positive student outcomes.

References

Framework for 21st century learning. Retrieved from <http://www.p21.org/our-work/p21-framework>
 Kapp, K. M. (2012). The gamification of learning and instruction: Game-based methods and strategies for training and education John Wiley & Sons.
 Molsbee, C. P. (2013). Collaborative testing and mixed results. *Teaching and Learning in Nursing, 8*(1), 22-25.
 Reigeluth, C. M., Myers, R. D., & Lee, D. (2017). The learner-centered paradigm of education. In C. M. Reigeluth, B. J. Beatty & R. D. Myers (Eds.), *Instructional-design theories and models, volume IV: The learner-centered paradigm of education* (pp. 5-5-32) Routledge.
 Sandahl, S.S. (2009). Collaborative testing as a learning strategy in nursing education: A review of the literature. *Nursing Education Perspectives, 30*(3): 171-175.
 Sandahl, S. S. (2010). Collaborative testing as a learning strategy in nursing education. *Nursing Education Perspectives, 31*(3), 142-147.



Student nurses recognized the value of collaboration in nursing and the importance of respect when working with peers.

Conclusions and Recommendations

Collaborative Testing was found to be an effective pedagogical practice to use with QSEN KSA's. It is a positive instructional strategy for providing students with an opportunity to practice collaboration skills and reinforce the importance of respecting others' contributions.

The use of Gamification yielded less than positive outcomes, but significant learning for faculty. Comments from students on the post-test indicated that there were too many quests and that the quests did not always seem to pertain to the material being taught in class at the time. "Quests" refer to learning challenges within the gamification framework. The students' impression was that at times the quests appeared to be "busy work." In support of the flipped classroom model, the intention of the quest challenges was to provide foundational knowledge and ancillary learning to encourage students to come to class prepared to apply what they learned through interactive learning strategies, such as case analysis and role playing. Consistently throughout the course students failed to complete the quests in the time intended, and did not come to class prepared to fully engage in learning at the higher levels of application, analysis and synthesis.

Future courses using gamification will need to employ tighter time lines for students to complete the pre-class quests. Revising quests to make them more challenging and engaging and less like "busy work" is also planned for future iterations of the course.