Using Qualtrics to create a virtual escape room

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Keywords

Education, Distance, Problem-Based Learning, serious play, escape rooms, online education

Abstract

As online, asynchronous learning environments expand, engagement and immediate feedback become increasingly challenging. Technology like virtual escape rooms bridges this gap, allowing students to engage and receive immediate formative feedback, ultimately supporting deeper learning and better preparation for professional scenarios. This project explores how Qualtrics© can be used to create a virtual escape room with minimal technical skills. This session addresses the challenges that prompted the use of gameplay as a teaching method, evidence supporting games in education, and the step-by-step process of developing an escape room in Qualtrics©. A significant focus will be on the mechanics of building an escape room, providing faculty with practical tools to incorporate into their courses. Initial student feedback will be presented at the SEE event, with future studies planned to compare its efficacy and learner perceptions to traditional case study formats.

In using a traditional case study format for the "Problem with the ED" students struggled to identify viable solutions. Specific challenges included identifying relevant variables and issues and calculating volumes and revenue. Students, who were primarily online learners with minimal synchronous time, needed an alternative format that allowed immediate feedback and course correction. The concept of "Escape from the Emergency Department" emerged as a creative, playful solution to improve student outcomes. Serious games, those designed for educational purposes, have proven to be effective learning tools when well-designed (Pacheco-Velazquez et al., 2023) and aligned with outcomes (Sousa et al., 2023). Games foster critical thinking, reduce the risk of failure, and provide immersive, goal-driven learning

experiences (Boctor, 2013; Gee, 2013). Team-based escape rooms, both in-person and online, combine these principles (Kaul et al., 2021). Additionally, virtual case studies offer immediate feedback via branching logic and enhance learner engagement (Banta-Wright et al., 2024). "Escape from the Emergency Department" uses technology to incorporate serious game elements, escape room concepts and tasks, and real-time feedback.

Qualtrics© was chosen due to its accessibility, institutional approval, and ability to gather student data for grading purposes. Alternative escape room platforms were found to be less user-friendly, required higher costs, and lacked integration for tracking student progress. Qualtrics© enabled the creation of a structured, interactive learning experience using basic logic features like display and skip logic, visual elements, and storytelling.

The session will detail methods for aligning learning objectives, designing case flow, incorporating game mechanics, and developing the escape room in Qualtrics©. Faculty will also learn to extract and review data for assessment purposes. If selected for an interactive workshop, a hands-on, pen-and-paper activity will be used so participants can apply concepts to a provided mini-case.

The escape room will debut with students in Winter 2025. However, initial testing by non-students indicates positive feedback on usability and engagement, with suggestions to enhance storytelling and game mechanics. Preliminary student performance and perceptions data will be available at SEE and compared to outcomes from prior cohorts who completed the traditional case study. Future studies will evaluate the virtual escape room's efficacy relative to traditional formats and examine whether scaffolding improves students' ability to navigate complex cases.

Learning Objectives

- Articulate the benefit of using serious games in learning
- Identify steps required to turn a case study into a virtual escape room
- Practice with key gameplay mechanisms to engage learners
- Select key technological mechanisms to create an escape room

References

1. Baid, H., & Lambert, N. (2010). Enjoyable learning: The role of humour, games, and fun activities in nursing and midwifery education. Nurse Education Today, 30(6), 548–552. https://doi.org/10.1016/j.nedt.2009.11.007
2. Banta-Wright, S. A., Wright, B. M., Taha, A. A., & Miehl, N. (2024). Branching Path Simulation for Pediatric Nurse Practitioner Students to Promote Critical Thinking: A Quasi-Experimental Study. Journal of Pediatric Health Care, 38(5), 737–746. https://doi.org/10.1016/j.pedhc.2024.03.004
3. Boctor, L. (2013). Active-learning strategies: The use of a game to reinforce learning in nursing education. A case study. Nurse Education in Practice, 13(2), 96–100. https://doi.org/10.1016/j.nepr.2012.07.010
4. Gee, J. P. (2013). Games for learning. Educational Horizons, 19, 17–20.
5. Glendon, K., & Ulrich, D. (2005). Using Games as a Teaching Strategy. Journal of Nursing Education, 44(7), 338–339. https://doi.org/10.3928/01484834-20050701-11
6. Kaul, V., Morris, A., Chae, J. M., Town, J. A., & Kelly, W. F. (2021). Delivering a Novel Medical Education "Escape Room" at a National Scientific Conference: First Live, Then Pivoting to Remote Learning Because of COVID-19. Chest, 160(4), 1424–1432. https://doi.org/10.1016/j.chest.2021.04.069
7. Pacheco-Velazquez, E., Rodes-Paragarino, V., Rabago-Mayer, L., & Bester, A. (2023). How to create serious games? Proposal for a participatory methodology. International Journal of Serious Games, 10(4), 55–73. https://doi.org/10.17083/ijsg.v10i4.642
8. Sousa, C., Rye, S., Sousa, M., Torres, P. J., Perim, C., Mansuklal, S. A., & Ennami, F. (2023). Playing at the school table: Systematic literature review of board, tabletop, and other analog game-based learning approaches. Frontiers in Psychology, 14, 1160591. https://doi.org/10.3389/fpsyg.2023.1160591