IN PRACTICE

A75 **HIGH IMPACT, LOW FIDELITY: DESIGN PRINCIPLES FOR AN EFFECTIVE ELDERLY CARE ESCAPE ROOM SIMULATION USING GAMIFICATION AND VARK**

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Introduction: Effectively training healthcare professionals for complex elderly care is vital but often hindered by simulation costs. This project demonstrates a high-impact, low-fidelity simulation escape room designed for interprofessional groups of urgent care practitioners (nurses, paramedics). We aimed to enhance critical thinking, teamwork, and problem-solving by focusing on accessible, engaging pedagogical design incorporating gamification [1] and Visual, Aural, Read/Write, Kinesthetic (VARK) principles, demonstrating impact and creativity within resource constraints.

Methods: A structured design process, involving subject matter experts (SME), aligned escape room puzzles with elderly care learning objectives (falls, medication, psychological assessment). The design intentionally integrated VARK learning styles and gamification principles to maximise engagement. AI tools aided development-phase scenario refinement. This low-fidelity simulation was implemented with nurse and paramedic participants undertaking a minor illness course between September 2024 and April 2025. A mixed-methods evaluation used pre/post questionnaires primarily assessing confidence and preparedness, alongside qualitative feedback exploring the learning experience and impact on collaboration. Data was collected in March 2025.

Results: The low-fidelity, design-centric approach proved highly effective. Quantitative data confirmed uniformly high participant engagement (rated 4 or 5/5). Qualitative feedback revealed the simulation was highly enjoyable compared to traditional methods, with participants particularly valuing the problem-solving aspects inherent in the gamified design. Participants reported significant increases in confidence managing complex elderly care scenarios, with 75% stating they felt more prepared to manage elderly falls patients' post-simulation. Further qualitative data suggested increased confidence in applying key concepts and skills, alongside improved interdisciplinary communication, teamwork, and appreciation for collaborative problem-solving, directly addressing cultural aspects of healthcare teams.

Discussion: This study confirms that impactful simulation, fostering creativity and cultural competence in healthcare teams, does not necessitate high-fidelity setups. By prioritising robust pedagogical design (VARK, gamification) and co-production principles (SME collaboration), effective, engaging, and accessible low-fidelity simulations can be developed. The strong positive outcomes related to participant engagement, confidence, self-reported preparedness for practice, and improved teamwork and communication [2] demonstrate the simulation's value. This pilot provides a scalable, resource-conscious model for interprofessional workforce development in specialized areas like elderly care. Ongoing refinement based on feedback continues. This approach strongly aligns with the need for creative, co-produced simulations that deliver measurable impact

Ethics Statement: As the submitting author, I can confirm that all relevant ethical standards of research and dissemination have been met. Additionally, I can confirm that the necessary ethical approval has been obtained, where applicable.

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