Preparation For Practice: Mock Codes in Nursing Education

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INTRODUCTION

Mock codes simulate life-threatening situations like cardiac or respiratory arrest. This provides training for nursing students who lack real-world experiences in emergencies. With global nursing shortages, organizations are decreasing orientation time for new nurses and offering limited exposure to critical situations.

Simulated mock codes give students hands-on practice in a controlled environment, leading to improved confidence, skills, and communication.

Mock code simulation setup illustrating student roles and equipment organization.
Photograph by Shaneka Dumas, used with permission.

OBJECTIVES

Upon completion, participant will be able to describe Kolb's Experiential Learning Cycle.

Upon completion, participant will be able to list INACSL Best Practice Standards used.
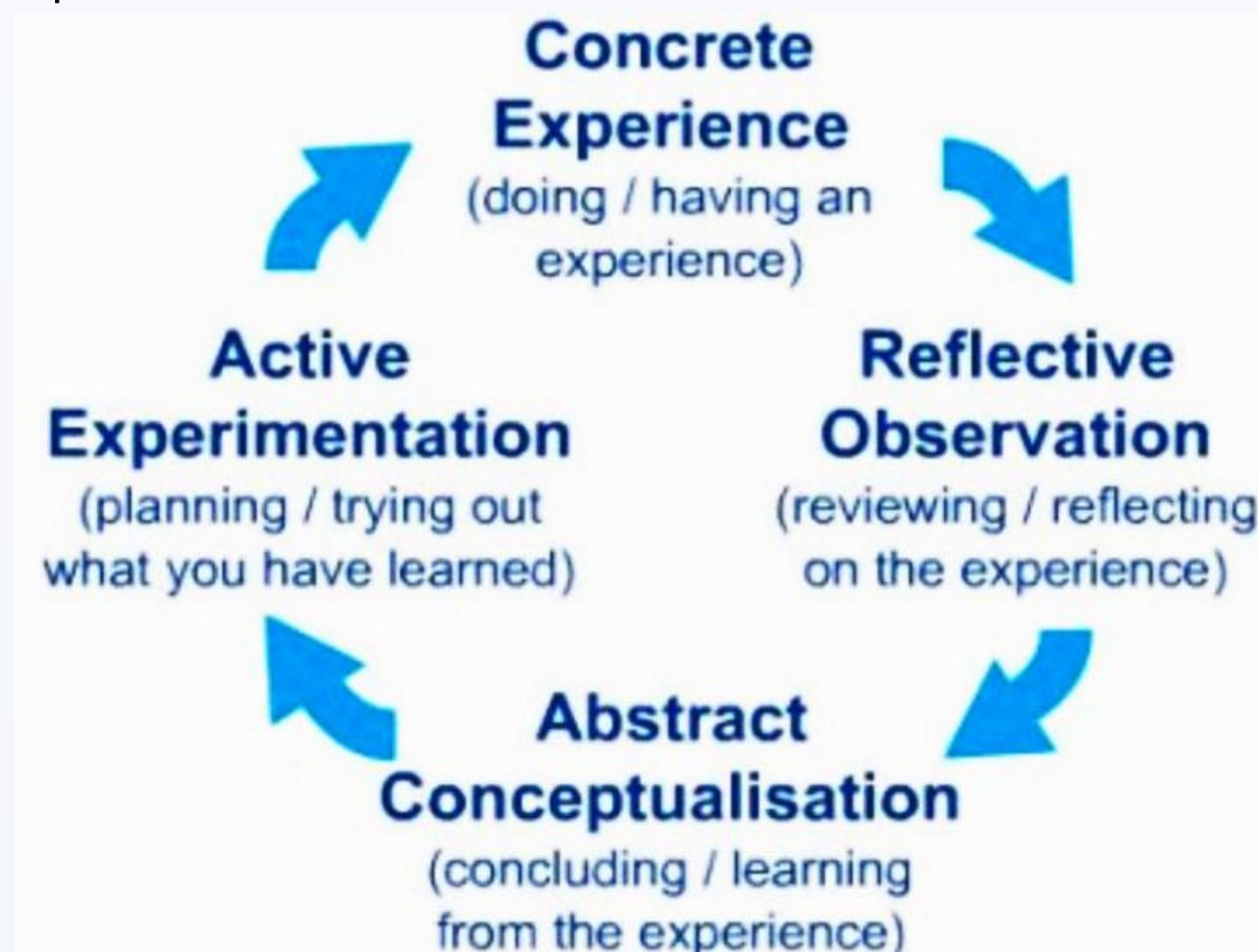
Upon completion, participant will be able to describe three aspects of learner improvement using Mock Code Simulations.

Nursing students engage in observational learning during a high-fidelity mock code simulation to enhance emergency preparedness.
Photograph by Shaneka Dumas, used with permission.

Project Design/ Implementation

Kolb's learning cycle—Concrete Experience, Reflective Observation, Abstract Conceptualization, and Active Experimentation—informed the simulation structure.

Concrete Experience (doing / having an experience)
Reflective Observation (reviewing / reflecting on the experience)
Abstract Conceptualisation (concluding / learning from the experience)
Active Experimentation (planning / trying out what you have learned)

Method: Quality Improvement (QI) project using Kolb Learning Cycle

Setting: Faith-based institution in Central Florida

Population Interest: Nursing students (*N*=232) who were enrolled in Adult Health II that participated in the Mock Code: BLS Simulation during Fall 2023 semester to Spring 2025. However, only 188 students participated in completing the Pre-Mock Code: Self-Efficacy Scale while 178 students participated in completing Post-Mock code: Self-Efficacy Scale.

The steps that involved in the implementation and sustainability of Mock code: BLS simulation were (1) the scenario that was integrated into the course (2) Preparatory materials, a structured pre-brief, and a scripted simulation scenario were presented to establish expectations and ensure student readiness, (3) followed by peer observation and debriefing using the Plus/Delta model to promote critical reflection. The evaluation process involved a rubric with clearly defined learning objectives that measured both technical and non-technical skills, and pre/post surveys were administered to assess changes in learner insights, confidence, and clinical decision-making abilities.

Mock code simulation setup illustrating student roles and equipment organization.
Photograph by Shaneka Dumas, used with permission.

Methodology

Data Collection: Retrospective and prospective data collection (combining quantitative and qualitative data collection techniques) were used. The Mock Code Self-Efficacy Scale (α=0.75) was used to assess the confidence levels of nursing students before and after the mock code BLS simulations with permission from the author. In addition, post-simulation debriefings were conducted to gather qualitative insights.

Data Analysis:
Quantitative data: Analyzed by looking at responses of the prelicensure nursing students in the Mock Code Self-Efficacy Scale if they felt strongly confident or not for each skill that were assessed before and after the mock code: BLS. The data from the Fall 2023 to Spring 2025 semester were compared.
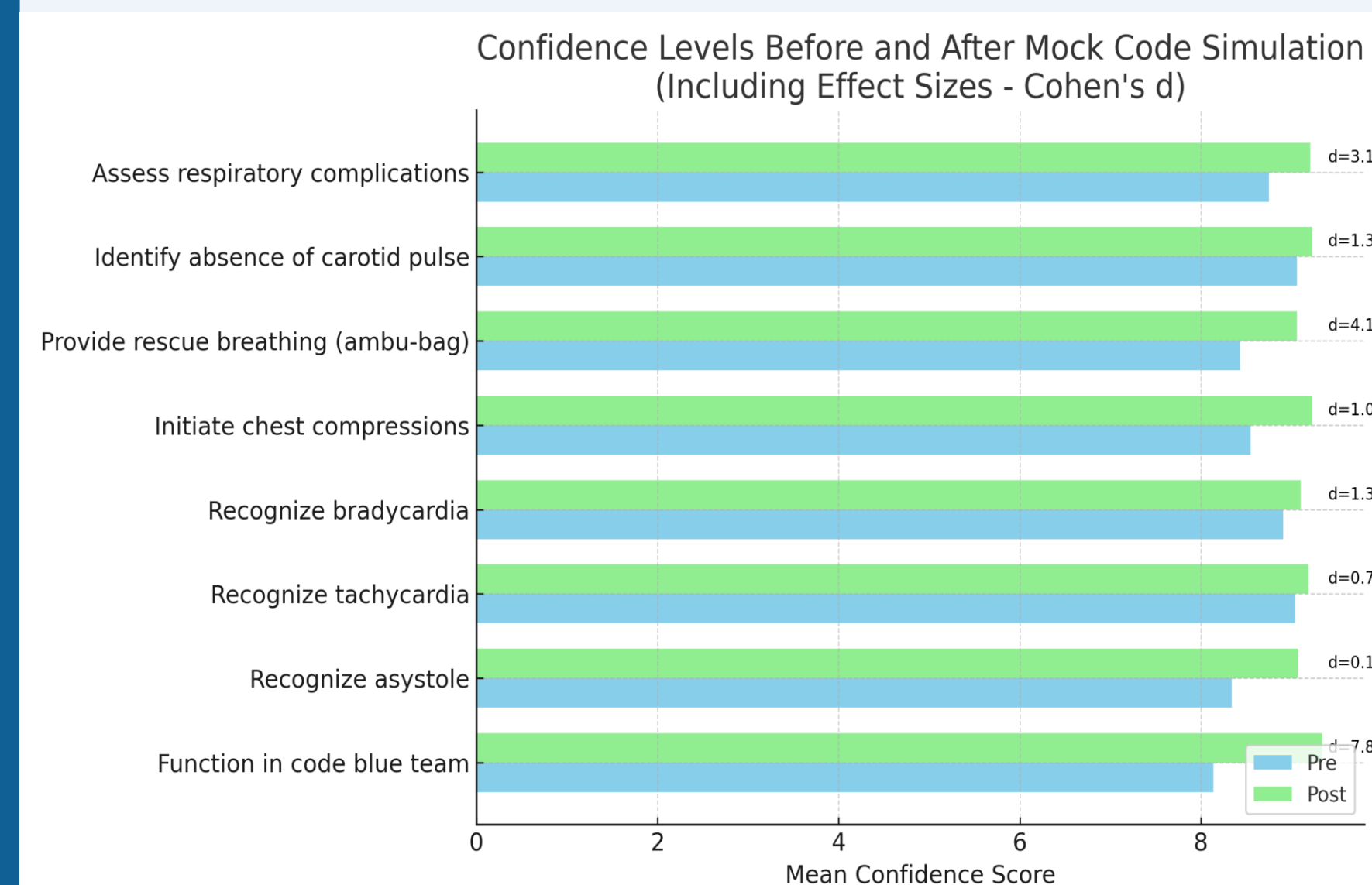**Qualitative data**: Thematic analysis (Atlas.ti software)

RESULTS

Qualitative Data Results:
Themes (Learning): engagement (teamwork, enjoyment, desire for improvement), connection (communication), skills development, education, confidence, preparedness, problem-solving and resourcefulness.
Themes (Debriefing Sessions): improving teamwork and enhancing their ability to respond to critical incidents.

Quantitative Data Results:
Using the Mock Code Self Efficacy Scale, students self reported comfort level with BLS skills before and after the Mock Code simulation. These values quantify the magnitude of change in confidence, with most showing **large effects** (d > 0.8), indicating the mock code simulation had a strong impact.

Confidence Levels Before and After Mock Code Simulation (Including Effect Sizes - Cohen's d)

Skill	Effect size
Assess respiratory complications	d=3.19
Identify absence of carotid pulse	d=1.30
Provide rescue breathing (ambu-bag)	d=4.19
Initiate chest compressions	d=1.01
Recognize bradycardia	d=1.35
Recognize tachycardia	d=0.75
Recognize asystole	d=0.16
Function in code blue team	d=7.81

Mean Confidence Score — Pre / Post

LIMITATIONS

Few students did not participate in the pre and post mock code survey (Mock Code Self-Efficacy Scale).
Learning style was not assessed prior mock code simulation.

CONCLUSION

Incorporating mock code simulations into the undergraduate nursing curriculum is a promising strategy for enhancing the education and training of nursing students. The results of this QI project suggest that mock code simulations lead to improved knowledge, skills, and self-confidence among students, ultimately better preparing them for real-life clinical scenarios. As the nursing profession continues to evolve in response to dynamic healthcare environments, the integration of mock code simulations into nursing education can play a pivotal role in ensuring that undergraduate students are well-equipped to deliver high-quality patient care.

IMPLICATIONS FOR PRACTICE

The increasing demands on novice nurses and the shortage of clinical training opportunities highlight the need for innovative educational strategies. The implementation of simulation-based mock codes, grounded in Kolb's Experiential Learning Cycle (Kolb, 1984) and aligned with the INACSL Standards of Best Practice: Simulation℠ (INACSL Standards Committee, 2021), offer nursing students dynamic, hands-on experiences that bridge the gap between theory and real-world clinical practice. These structured mock codes allow learners to safely develop clinical judgment, procedural skills, and effective communication in a supportive environment where mistakes become opportunities for growth (Alexander et al., 2021).

Mock code experiences are carefully designed to include preparatory learning materials, structured pre-briefings, realistic high-fidelity scenarios, and opportunities for peer observation. Through active participation and guided debriefing models such as Plus/Delta, students strengthen their technical skills, critical thinking abilities, adaptability, and teamwork. Simulated experiences create a supportive setting where students can respond to emergencies, reflect on their actions, and apply new insights toward the development of professional proficiency and effectiveness (INACSL Standards Committee, 2021).

Emerging evidence shows that repeated engagement in high-fidelity simulation significantly improves student confidence, critical decision-making, and readiness to manage acute patient deterioration in real-world clinical settings (World Health Organization, 2020; Alexander et al., 2021). As healthcare environments become increasingly complex and resource-constrained, integrating structured simulation into nursing curricula is fundamental. Investing in evidence-based simulation strategies helps ensure that nursing graduates are not only clinically competent but also resilient and fully prepared to meet the challenges of holistic patient care.

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