Using Deliberate Practice in Simulation to Increase Competence: A Quality Improvement Project
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Background:
- Aviation history in simulation (FAA, 2021)
- NCSBN’s National Simulation Study (Hayden et al, 2014)
- American Heart Association’s Resuscitation Quality Improvement (RQI) (Bjanji et al, 2010)

Models:
- Grounded Theory (Miles, 2018) & Simulation-based Mastery Learning (McGaghie & Harris, 2018)

Project Impetus:
- Students requesting to repeat simulations to reinforce learning
- Closing the Transition to Practice Gap

PICO: “At Loyola University Chicago pre-licensure accelerated bachelor of science (ABSN) program, does deliberate practice in simulation increase practice competence?*" 

* 17% of new graduates leave the profession in the first year (Blegen et al, 2018)
- AACN’s Competency Based Education Transition (AACN, 2021)

A Quality Improvement Project using Rapid Cycle Deliberate Practice Model
Using a basic code simulation, project participants perform up to three separate code simulations inclusive of INACSL’s Healthcare Simulation Standards of Best Practice (pre-briefing component, simulation, and debriefing session).

Feb 11 to April 22, 2022
Subgroup B * 
Pre-brief

Subgroup A * 
Trio 2*
8 LUC ABSN students/group
Pair 1 *
Trio 1 *
10 groups total

Data Collection: The Creighton Competency Evaluation Instrument (Todd et al, 2014) & 1. Time to recognize no pulse and 2. Time from recognition of no pulse to first compression

IRB Reviewed with approval granted: Loyola University Chicago IRB & MNSON Research Committee
Informed Consent signed by participants inclusive of purposes of video taping

Budget: $2000 for gift cards if additional retention demonstration occurs

Anticipated Results:
- Creighton Competency Score
- Time for Recognition of NO Pulse
- Time until First Compression

Evaluation
Pending Project Completion
Coming Soon!

Practice Implications
Proposed ideas while awaiting project outcomes:
- Project Framework – Adaptable to many simulations and setting

Recommendations:
- Incorporate into course schedule additional simulations at later time periods in semester to assess Retention of Competency

Bibliography
American Association of Colleges of Nursing (AACN, 2021). The Essentials: Core competencies for professional nursing education.
Federation Aviation Administration (Faa, 2021). Economic values for FAA investment and regulatory decisions, A Guide: 2021 Update

Evidence-Based Initiative
- Aviation history in simulation
- NCSBN’s National Simulation Study
- American Heart Association’s Resuscitation Quality Improvement (RQI)
- Grounded Theory
- Simulation-based Mastery Learning
- Students requesting to repeat simulations to reinforce learning
- Closing the Transition to Practice Gap