JIBC

The Practice Learning Ladder

Ron Bowles, PhD (ABD)

INTRODUCTION/BACKGROUND

My research explores a "gap" separating traditional simulation learning from field practice – a chasm between the *comfort of technical competence* and the *complexity of clinical practice*. This study explores the gap through the lens of developing clinical judgment in the context of high fidelity simulations involving recruit paramedics in a Canadian setting.

The questions in this study explore the relationships and interactions of participants and selected elements or agents in the simulation environment. I set my research as a mixed-method multiple-case study examining individual simulations as primary objects of study that are embedded in, and in which are embedded, multiple other possible objects of study.

I gathered data from 75 simulations from two sets of scheduled classroom simulations in the Primary Care Paramedic program and a new high fidelity simulation module created for this study. I collected data that explored how participants acted and interacted, what sources of authority they called upon.

DIFFERENT WAYS OF KNOWING:

The findings in this study suggest that existing paramedic simulations and the practicum represent radically different learning environments, each with its own sets of roles, expectations, patterns of practice, and methods of evaluation that call on different epistemological and ontological conceptions of what constitutes competent practice, what knowledge matters most, and how learning occurs. The varied learning activities in this study fostered different ways of knowing as learners moved from the consistency of context-independent skill performance to the socially-constructed adaptation of procedures and protocols in dynamic simulations, and, finally, to the socially-negotiated understandings arising from co-emergent activity in a field setting.

BLENDS OF FIDELITY:

Effective simulations require situational blends of fidelity to create environments *realistic enough to meet their pedagogic goals.* Simulations intended to foster clinical competence and clinical judgment must provide occasions for discernment; they must create a milieu involving complex interpersonal interactions and genuine opportunities for clinical decision-making. Thus, paramedic simulations must be as concerned with role, environmental, interpersonal, and social/cultural fidelity as with physiological and procedural fidelity. In this sense, populating HFS more richly with actors and authentic interdisciplinary responders may often be as important as the use of HF mannequins and standardized patients.

Practice Learning Ladder Analysis

Practice Activity	Focus	Learning Goal	Evaluation	Primary Learning Method	Instructional role	Nature of Assessment	Underlying Learning Theory
Practicum	Experience	Proficiency	Reflection, feedback	Reflection	Individual coaching and mentoring Post-call/ Post- shift critique	Better answers within experiential framework set in overall discussion of best practice	Social constructivist, community of practice
Clinical	Exposure, Practice	Recognition, Application	Assessment, feedback	Collaborative feedback	Individual coaching	"Right" answers within contextual framework	Mastery / Situated Learning
Immersive Simulation	Problem-solving	Adaptation	Collaborative discussion & acceptable performance based on best practice	Collaborative discussion Reflection	Peer-based practice with post-exercise critique	Better answers based on best practice Analysis Synthesis?	Situated Learning
Procedural Simulation	Differential Diagnosis, Decision-making	Integration	"Acceptable / Unacceptable" based on procedural criteria and mastery checklists	Structured feedback Criteria-based checklists	Peer-based practice with coaching Post-call critique	"Right" answers within contextual framework, concrete rules with contextual interpretation	Cognitivism
Drills/OSCE	Procedures	Sequencing	"Acceptable / Unacceptable" against mastery checklists	Structured feedback Criteria-based checklists	Guided practice coaching	"Right" answers, context dependent	Cognitivism Mastery
Skill Station	Skill performance	Mastery	"Acceptable / Unacceptable" Performance against mastery checklists	Mastery level checklists	Guided Practice	"Right" answers, context independent	Mastery

Blends of fidelity associated with types of activities in the Practice Learning Ladder

H	High fidelity
L	Low fidelity
N	Neutral or medium fidelity

Blends of Fidelity:	Patient			Context/ Scenario			Curricular		Professional		Culture of Practice	
Learning Activity	Physiological	Procedural	Interpersonal	Environmental	Participant	Role	Case	Richness/ Information	Context of Practice	Community of Practice	Diversity	Cultural Setting
Practicum	H	H	H	H	H	H	N/A	H	H	H	H	H
Clinical	H	H	H	L	L	L	N/A	H	L	L	N/A	L
Immersive Simulation	N	N	H	H	H	H	N	N	H	H	H	H
Procedural Simulation	H	H	N	N	L	N	H	N	N	N	L	L
Drills/OSCE	L	H	L	L	L	L	H	L	N	N	L	L
Skill Station	L	H	L	L	L	L	H	L	L	L	L	L

JUSTICE INSTITUTE OF BRITISH COLUMBIA