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From Diagnosis to Discernment:
Fostering Clinical Judgment in High Fidelity Simulations

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Introduction

Every time the students move from one performance domain to another, whether it's from independent study to the classroom or from simulations to on car, it's like they step off a cliff and fall into an abyss. Some students just need a couple of calls and off they go again. Others flounder and take longer to find their feet. And some never do make the transition.

Paramedic instructor describing the movement of recruit students from the simulation setting to the field practicum placement

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.
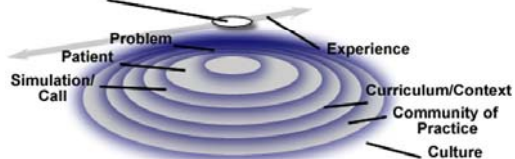

Intuitively, this "gap" seems a simple pause as students move from one learning domain to another. Yet there is more here. Traditional paramedic programs are based on a conception of learning as progression from acquiring knowledge in the classroom and developing skills in simulation to their integration and application in the field practicum. In this view, the practicum is an extension of the simulation lab, or, perhaps, simulations are a subset of field practice. The findings in this study, however, suggest that traditional simulations and the field practicum represent radically different learning environments – nested and overlapping environments sharing significant common elements, but distinct – each with its own sets of roles and expectations, patterns of practice, and methods of assessment and evaluation that call on different epistemological and ontological conceptions of what constitutes competent practice, what knowledge matters most, and how learning occurs. I argue that the gap represents the tension of experiencing technical competence and clinical competence as different ways of knowing.

Blends of fidelity in CS220, CC253, and HF simulations

	CS220	CC 253	HFS
Physiological fidelity	Low	Low	High/Low
Procedural fidelity	High	High	High/Low
Environmental fidelity	Low	Low - Medium	High
Role fidelity	Low	Low	High
Social/cultural fidelity	Low	Low	High

Comparison of immersion in CS 220, CC 253, and HF simulations

Source of authority for feedback
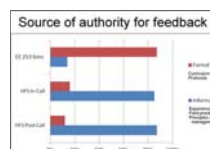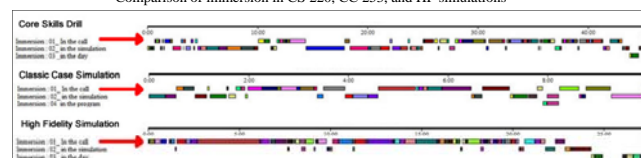
Methods

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 Core Skills and Classic Case classroom simulations in the Primary Care Paramedic program and a new high fidelity simulation module created for this study. I used observation and video recordings of 75 simulations within the "natural" setting of the curriculum as well as focus group interviews to collect data that explored how the various agents and participants in the simulations acted and interacted, what sources of authority they called upon, what forms and substance their reports and discussions took, and what artifacts they created. I developed descriptive statistics from questionnaires and quantitative examination of specific activities and functions observed in the video recordings and interviews.
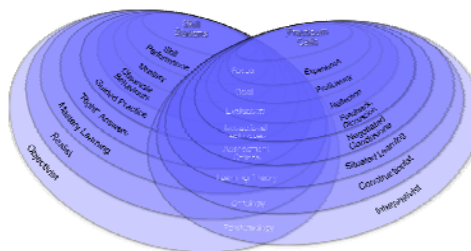
Discussion

Traditional curriculum structures rest on assumptions that learning is essentially progressive building of skills, knowledge, and judgment. This study suggests that learning is **less linear, less stable** – and yet – **more comprehensive** than the program's underlying curriculum framework assumes.

Simulation and fidelity are often used as unitary concepts in the literature. Yet, the simulations in this study represent several distinct types of learning environments, each calling for **differing blends of fidelity** to effectively support their **particular learning goals**.

One of the key findings of this study focuses on the need to **foster discernment** as a missing, critical ability in recruits to enter a dynamic environment, attend to and obtain data from multiple and sometimes conflicting and competing sources, and recognize the salient features of the particular case at hand – to see what is *different* in each case, not to focus on what is *similar* to previous episodes.

Instructors and preceptors "know" in different ways. Instructors seek and enforce the consistency of *technical competence* based on predetermined "right" and "wrong" answers. Preceptors function in a more dynamic, unpredictable, and unknown environment in which they must construct their own understanding of the situation before developing a relevant and *clinically competent* response.

The current paramedic curriculum structure sees the practicum and field environments as extensions of the classroom, and high fidelity simulation as a potential bridge between these environments. Yet, there are fundamental differences in the way that practitioners in these two overlapping but distinct *communities of practice* conceive of learning and determine what constitutes acceptable practice. The difference is more than mere semantics – it is **an ontological divide between two fundamentally different world views**, each with distinct ways of defining knowledge, acknowledging truth, and assessing performance.

Key References

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