A Socio-culturally Informed Instructional Design Framework for Clinical Simulation

Andrew West ¹, Beaumie Kim ², Gale Parchoma ³

1. Faculty of Health Sciences, University of Manitoba 2. Werklund School of Education, University of Calgary 3. College of Education, University of Saskatchewan

Corresponding author: Andrew West, andrew.west@umanitoba.ca

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Abstract
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Background
Socio-cultural perspectives on learning suggest that instructional design in clinical simulation should maintain focus on supporting learner cognition with technology enhanced learning strategies rather than expecting that learning occurs as a result of any particular technology. While existing instructional design frameworks in the field often encompass a variety of complex environmental design factors, they do not fully address the integrated nature of learning, technology and the environment. Moreover, technologically-oriented conceptualizations of fidelity continue to emerge in clinical simulation practice and research without considering socio-cultural theories of learning in complex learning environments.

Objective
Adopting the perspective that a shift in theoretic lens from individualistic to a more socio-cultural orientation may better support our understanding of learning in simulation environments, we propose an enhanced instructional design framework.

Description of Innovation
Building on the conceptual framework for instructional design developed by the Canadian Network for Simulation in Healthcare (Chiniara et al., 2013), this enhanced framework incorporates the attributes of the learners’ experience with the technology, addressing the physical, semantical, and phenomenal aspects of fidelity. This enhanced instructional design framework recognizes the joint learning relationship that exists between learners and simulation environments, and highlights how designs that foster this relationship can enhance simulation fidelity. A practical implementation algorithm of the framework is provided to assist simulation practitioners in taking socio-cultural perspective into their educational designs.

Impact
This enhanced instructional design framework is augmented by a socio-cultural definition of fidelity and informed by educational theory on knowledge-building in technology-enhanced learning environments. The framework will be useful in fostering the relationships that support an effective clinical simulation learning environment. This will be of particular
value to instructional designers, researchers, theorists, and practitioners in the clinical simulation field.