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Exploring Collaborative Training with Educational Computer Assisted Simulations in Health Care Education: An Empirical Ecology of Resources Study

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ABSTRACT
This study explores collaborative training with educational computer assisted simulations (ECAS) in health care education. The use of simulation technology is increasing in health care education (Issenberg et al., 2005; Bradley, 2006), and research is addressing the techniques of its application. Calls have been made for informing the field with existing and future educational research (e.g. Issenberg et al., 2011). This study investigates and examines collaboration as a technique for structuring simulation training. Part of a larger research and development project (H?ll et al., 2011; H?ll & S?derstr?m, 2012), this paper primarily utilizes qualitative observation analysis of dentistry students learning radiology to investigate the challenges that screen-based simulation technology poses for collaborative learning. Grounded in Luckin's ecology of resources framework (Luckin, 2010) and informed by computer-supported collaborative learning (CSCL) research, the study identifies some disadvantages of free collaboration that need to be dealt with for collaboration to be a beneficial technique for ECAS in health care education. The discussion focuses on the use of scripts (Weinberger et al., 2009) to filter the interactions between the learner and the more able partner, supporting the collaborative-learning activity and enhancing learning with ECAS in health care education.

KEYWORDS
Collaborative Learning; Collaborative Scripts; Computer Simulation; Design; Dentistry Education; Ecology of Resources

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