This study explored the utility of Web-based observational practice (OP) featuring combinations of reading materials (RMs), OP, and collaboration to prepare novice medical students for a simulation-based mastery learning (SBML) workshop in central venous catheterization" Cheung et al (2916).

Abstract:

INTRODUCTION: Our current understanding of what results in effective simulation-based training is restricted to the physical practice and debriefing stages, with little attention paid to the earliest stage: how learners are prepared for these experiences. This study explored the utility of Web-based observational practice (OP) featuring combinations of reading materials (RMs), OP, and collaboration to prepare novice medical students for a simulation-based mastery learning (SBML) workshop in central venous catheterization.

METHODS: Thirty medical students were randomized into the following 3 groups differing in their preparatory materials for a SBML workshop in central venous catheterization: a control group with RMs only, a group with Web-based groups including individual OP, and collaborative OP (COP) groups in addition to RM. Preparation occurred 1 week before the SBML workshop, followed by a retention test 1-week afterward. The impact on the learning efficiency was measured by time to completion (TTC) of the SBML workshop. Web site preparation behavior data were also collected.

RESULTS: Web-based groups demonstrated significantly lower TTC when compared with the RM group, ($P = 0.038$, $d = 0.74$). Although no differences were found between any group performances at retention, the COP group spent significantly more time and produced more elaborate answers, than the OP group on an OP activity during preparation.

DISCUSSION: When preparing for SBML, Web-based OP is superior to reading materials

alone; however, COP may be an important motivational factor to increase learner engagement with instructional materials. Taken together, Web-based preparation and, specifically, OP may be an important consideration in optimizing simulation instructional design.

Reference:

Cheung, J.J., Koh, J., Brett, C., Bägli, D.J., Kapralos, B. and Dubrowski, A. (2016) Preparation With Web-Based Observational Practice Improves Efficiency of Simulation-Based Mastery Learning. Simulation in Healthcare. July 6th. .

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