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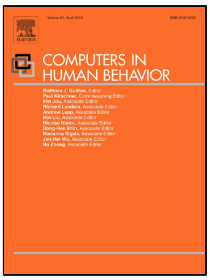

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Mixed camera viewpoints improve learning medical hand procedure from video in nurse training?

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Abstract. Recent research has shown that camera viewpoints can influence how hand procedures are learnt from videos. However, studies have generally investigated videos showing only single viewpoints, for example, face-to-face or over-the-shoulder. Single views may not be appropriate for learning complex medical procedures involving spatial viewpoint changes. The goal of the present study was to investigate the effect of mixed camera viewpoints on learning a complex medical hand procedure from a video. Using a pretest-posttest paradigm, 43 students at a French nursing school had to learn a complex hand procedure from a video showing an expert nurse teacher inserting an indwelling catheter in a closed system using a simulation mannequin. Three video conditions were compared, delivering the same information in the same amount of time, from different viewpoints: (i) face-to-face only (FtF), (ii) over-the-shoulder only (OtS), and (iii) alternating face-to-face and over-the-shoulder views for each step of the procedure (MixW). The students were randomly assigned (N=10-11) to one of four groups: the three experimental viewing conditions (FtF, OtS, MixW) and a control condition without video. Pre- and post-tests consisted of performing the hand procedure in a fully equipped full-scale simulation room. Results showed that learners in the mixed viewpoint (MixW) group performed better than the other groups (FtF, OtS, and control condition). Learners in the FtF and OtS groups outperformed those in the control group.

Keywords:

Videos, learning, camera viewpoints, medical hand procedure, nurse training