

Dissertation Abstract

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Title: An Exploration of a Situated Learning Approach to Increasing Instructors' Technology Self-Efficacy in the Use of Active Learning Tools Within Virtual Learning Environments

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Virtual learning environments (VLEs) include tools such as blogs which allow students to engage in active learning. Despite these affordances, many instructors primarily use VLEs to transmit reading materials (Malikowski, Thompson, & Theis, 2007, p. 152). Professional development interventions such as workshops attempt to address this issue but are often ineffective at increasing the extent of technology use by instructors (Lawless & Pellegrino, 2007, p. 594).

The purpose of this case study therefore is to explore how a situated learning approach to professional development may be effective at increasing instructors' technology self-efficacy (TSE) in the use of active learning tools within VLEs.

The main argument of this paper is that self-efficacy is an important mediator in terms of the extent of technology use (Rienties, Giesbers, Lygo-Baker, Ma, & Rees, 2016, p. 550). Workshops are often ineffective at increasing TSE as they do not give sufficient opportunities for practice. Situated learning theory may address this problem as it emphasises the importance of practicing within an authentic social context.

The research method involved designing an artefact under the principles of situated learning which allows instructors to practice using a VLE's active learning tools via an interactive online scenario. 28 participants were recruited in Trinity College Dublin to engage with the artefact over a two week period. A technology self-efficacy scale, survey and individual interviews were used to explore the intervention's effect on participants' technology self-efficacy in the use of active learning tools within a VLE.

The research findings indicated that the ability to repeat and return to tasks within the artefact provided multiple opportunities for authentic practice which was cited as a positive by participants in terms of increasing their TSE. However, some participants had difficulties applying the concepts in the artefact to their specific teaching context. The small sample size and short timeframe of the research limits the case study's generalizability. Despite these limitations, the case study contributes to research on how professional development interventions which emphasise authentic practice and the context in which instructors make use of technology may be more effective than standard workshops.