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**Degree:** Master of Science in Technology & Learning

**Title:** “All work and no play”: Exploring gamified online Continuing Professional Development (CPD) as a driver for intrinsic motivation.

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**Academic Year:** 2015

## **Abstract**

Continuing Professional Development (CPD) involves maintaining, improving and broadening knowledge, skills and competencies (Friedman, 2012). It should assist learners in acquiring knowledge and skills and also focus on enhancing competence and performance by providing opportunities for learners to apply knowledge to real life situations (Gould, Papadopoulos, & Kelly, 2014). When delivered via asynchronous, linear, text based e-learning with limited interaction, CPD can overcome some problems relating to work conditions such as time, cost and geography, but for learners it becomes little more than a tick box exercise, resulting in a lack of engagement and motivation (Friedman, 2012; Gould et al., 2014).

Motivation is critical to learning because it is essential for initiating and maintaining effort (Schunk, 2008). Self determination theory (SDT) proposes that if the innate psychological needs of autonomy (control), competency (in relation to tasks) and relatedness (feeling affiliation) are satisfied, engagement and motivation will be initiated and sustained (Ryan & Deci, 2000b). The deprivation of these needs can, conversely, cause a lack of motivation. Self determination theory describes motivation in terms of extrinsic (relating to factors external to the individual) and intrinsic (drive by interest or enjoyment and existing within the individual) motivation. This differentiation allows for the identification of specific extrinsic factors that could be used to trigger intrinsic motivation.

A review of the literature on CPD, SDT and gamification reveals that there are significant possibilities for the positive use of extrinsic, gamification factors to trigger intrinsic motivation in those undertaking CPD e-learning. However, neither the literature on gamification or SDT proposes a framework for the design of activities.

Gamification is an approach that can facilitate learning and encourage motivation using game elements, mechanics and game based thinking (Kapp, 2014). Specific extrinsic

gamification factors suited to meeting the needs of autonomy, competency and relatedness can be harnessed to explore the effect on learner motivation. Gamification can also assist in delivering CPD appropriately through allowing learners the freedom to learn and apply new skills and practice them in a safe environment, while encouraging exploration and providing realistic consequences for decisions (Kapp, 2012a; Weinstein, 2012).

An embedded, sequential, mixed methods QUAN/qual multiple case approach, involving three embedded cases was used to help ensure the accuracy of the case study when exploring the research question and sub question.

The study concludes that feelings of autonomy, competency and relatedness can be successfully realised in an entirely online environment for a majority of participants. However, for some, it can be difficult to balance the satisfaction of these needs. Some factors can very successfully support one need while negatively affecting another. Similarly, certain factors, such as rewards, can result in negative feelings of pressure and teamwork can cause frustration if some team members are not taking part. This study also concludes that gamified learning, if delivered using an appropriate structure, will have a positive impact on learner motivation and allows for opportunities for learners to apply their knowledge to real life situations.