

## Chapter 3

# Utilizing Instantaneous Feedback to Promote Self-Regulated Learning in Online Higher Education Courses: The Case for Digital Badges

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### **ABSTRACT**

*In higher education learning environments, there is a dual need for educators to use supportive strategies to motivate students throughout the course, while also aiming to increase the capacity of students to self-regulate their learning. Using instantaneous tools to deliver formative or summative feedback through digital technology has been shown to lead to higher achievement and retention rates. This chapter shows how digital badges can provide instantaneous feedback to support students to feel belonging in the online community and develop self-regulation skills. Instantaneous feedback tools can be used to provide teacher presence throughout higher education courses to increase student engagement, retention, and achievement.*

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## **INTRODUCTION**

Preparing students for their professions and life-long learning should be important goals in higher education courses (Çakir, Korkmaz, Bacanak, & Arslan, 2016). A student's ability to self-regulate learning is important for academic achievement and a necessary skill for 21<sup>st</sup> Century learners (Zhu & Mok, 2018). Students' capabilities, understandings and attitudes will enable students to live life and seek employment in a global market (MCEETYA, 2008).

Whilst educators often focus on the course content, delivery and assessment of their courses, Garrison, Anderson, & Archer (2000) propose the online learning environment should be a collaborative process, which is reliant on social presence, teaching presence and cognitive presence to engage learners and develop a sense of belonging (Thomas, 2012; Thompson, Vogler, & Xiu, 2017). This online Community of Inquiry (Garrison, Anderson, & Archer, 2000) can be created through targeted use of digital technologies, to increase self-regulation and afford student learning (Gibson, 1977; Thompson, Vogler & Xiu, 2017).

Digital badges, online representations of an achievement or award, are one pedagogical tool that can assist educators to create a Community of Inquiry. The instantaneous feedback of the digital badge can assist students to track course progression and engage with the course content (Dowling-Hetherington & Glowatz, 2017). Utilising digital badges provides timely acknowledgement of task completion and alongside other forms of feedback, contributes to teaching presence within a course.

## **BACKGROUND**

Online learning has rapidly increased with over 7 million students studying higher education online (Allen & Seaman, 2014). Online delivery has provided access for students who may not have been able to study on campus, which has resulted in a change of student population. Students may be studying part-time, juggling work or family commitments or live in rural or remote areas. Universities have needed to make adjustments from a pedagogy of face-to-face instruction to online delivery to adjust to changing demands and competition in the higher education sector (Starkey, 2010). While initial changes focused on topic content and assessment (Hill & Barber, 2014) to cater for student demographics, delivery format and capabilities of technology in online learning are still being explored (Carey & Stefaniak, 2018; Chiasson, Terras & Smart, 2015).

The widespread global extent of digital technologies, high speed internet and accessible cost of devices means access to information is readily available for more people (Dowling-Hetherington & Glowatz, 2017). Many students entering higher education have engaged with various digital and multimedia platforms, such as smartwatches, smartphones, tablets, laptops, gaming platforms and social media. The devices are usually interactive and users are rewarded for engagement with 'likes', rewards and levels of accomplishment where instantaneous feedback is common upon completion of tasks (Hamari, 2017). Courses using digital badges in higher education (Abramovich, 2016) have shown students are proud of the credentialing of badges and levels and feel satisfaction upon completion and can share these with others in the online community or on social media (Jones, Hope & Adam, 2018).

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