**Game-based Learning Gamification**

The term ‘gamification’, coined by Nick Pelling in 2002 (Hägglund, 2012), serves to describe how any task can be performed as a game. Gamification is used in non-game applications and processes in an attempt to encourage people to adopt them or in order to affect how they are used. Gamification works by making technology more fascinating, inspiring users to adopt desired behaviours, presenting ways to achieve self-agency and autonomy, solving problems and avoiding distractions, and utilising people’s psychological tendency to play. Thus, the use of game elements in contexts that are not games is a way to utilise digital technologies and video games’ features to increase people’s involvement and motivation to perform activities. One of those activities is learning (Barab, Gresalfi, & Ingram-Goble, 2010; Dubois & Tamburrelli, 2013; Sadler, Romine, Stuart, & Merle-Johnson, 2013). In this context, definitions of game-based learning mostly emphasise that it is a type of game with defined learning outcomes (Plass, Homer, & Kinzer, 2015).

In the last decade, gamification has developed considerably in academia and the industry, well beyond competing technologies (Hamari, Koivisto, & Pakkanen, 2014). Reports (Deterding et al., 2011; Johnson et al., 2015) indicate that in the near future widespread use will be made of learning through ‘augmented reality’ technology – technology that identifies elements in the real world, and adds information by means of computer graphics – and game-based learning. Digital games can provide an opportunity to play through virtual environments and to be an integral part of the learning (Ke, 2009). We believe and understand best when we can imagine a situation that prepares us for action. Therefore, games that simulate a situation that is close to reality provide the opportunity to think, understand, prepare and perform (Gee, 2003).