

# Motivational Influences for Higher Education (HE) Students

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## ABSTRACT

This article offers a novel innovative gamification approach for undergraduates within higher education. To support the innovative approach, a mixed method data analysis investigation was conducted to capture the case study. The authors propose a gamification model to support student's perceptions and views while they were undertaking their Level 5 Games Technologies and Level 6 Games Development courses at a higher education institute within the northeast of the United Kingdom. The model used within gamification will provide a supportive approach for game thinking challenges, to help build upon excitement and motivational influences to improve retention, engagement, motivation, and problem solving, whilst using a competition between the two-year groups as an incentive. The authors' analysis suggests there are key factors between competition and using motivation through gamification to influence the learners.

## KEYWORDS

Achievements, Behavioural-Changes, Gamification, Mastering Skills, Motivations, Socialization

## INTRODUCTION

Gaming technologies have long been effectively utilized as learning tools to improve retention, engagement, motivation, and problem solving. The history of using gaming as a learning tool stems from the mid to early 20th century in the Soviet Union, as a way of motivating the workforce through incentives. As Nelson (2012) indicates, factory workers would regularly compete against each other to increase production in return for "...morale-building via team games and workplace self-expression..." (Nelson, 2012, p.1). Researchers Behnke (2015), Flores (2015), and Seaborn et al. (2014) indicate that by mapping educational content through the use of gaming technology, educators can offer supportive pedagogical approaches, adaptive infrastructures, game thinking challenges, and design. The idea of gamification is to apply game dynamics and game design strategies to engage and motivate learners to achieve their goals (Bostan & Altun, 2016). Gamification thrives on the desire for an individual to achieve as long as it appeals to their sense of excitement. Through building upon excitement and motivation, the educator can engage the learners in a variety of tasks, that uses gaming technologies to aid in social interaction, community-based learning, connectivity, and other learning approaches to provide a learning environment that is fun, entertaining, and intellectually stimulating. Educators

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can harness this positive relationship by using collaborative/individual projects, tutorials, and training programmes, through gaming examples or gaming engines to harness the student's ability, rewarding their progress with a variety of different types of intrinsic and extrinsic motivational techniques that enhance and empower the way they learn and maximize the results from the learning process. Gamification will be used within this study to guide the learners through providing individuals with excitement and enjoyment via a diverse challenge between level 5 and level 6 games development groups. The Model being presented here will be able to support and give guidance to the tutors while mapping the educational content through elements of gaming technologies and peer support.

## Background

This section provides a critical introduction to gaming mechanics, social gaming elements, team-work, non-gaming environments, and the pursuit of learning activities. In practical terms, the background section focuses on providing an explanation of current approaches used to support gamification elements within a social/community context. Through using these concepts, guidelines can be drawn up to assist the educator to harness the flexibility of gamification when designing tasks, challenges, or assessment. The layout of this research starts with guidelines focusing on designing course content and how to incorporate gamification into learning activities; these principles are followed with the explication of a theoretical model that could be used to assist in the exploration of the domain topic through the use of technologies, pedagogy, and engagement.

## GUIDELINES

When designing course content, it is important for the academic to have clear, well-defined goals that are relevant to the learner. Sharma (2018) recommends considering both cognitive and affective learning outcomes for an effective learning design and to pay attention to the affective state of learners as they engage with learning (p. 380). These will assist the learner when tackling different challenges in completing the tasks within the learning process (Kim & Lee, 2012). Landers and Landers (2014), and Kim and Lee (2012) recommend that one way of influencing the learner is to strengthen and build upon the instructional design and the outcomes (Bedwell, et al. 2012). Bedwell et al. (2012) indicate that purposeful alignment would enable the academic to set a series of attributes that would challenge the community, based upon several key building blocks or a "Taxonomy Alignment (TA)".

The TA would effectively allow the tutor to consider aspects of:

*"Action Language*

Assessment

Conflict/Management

Control

Environment

Game Fiction

Human Interaction

Immersion

Rules/Goals

*Game Matrix"* (p. 733)

while effectively placing the taxonomy directly into the learning environment for the learner to benefit from. Landers and Landers (2014) indicates that homing onto the categories that Bedwell et al. (2012) suggest, would enable the learner to embrace and fully identify targets set while gaining a harmonious balance within the educational setting.

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