Research notes

Enhancing workplace motivation through gamification: Transferrable lessons from pedagogy

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ABSTRACT

Gamification is a term that has gained currency over the last few years. Gamification refers to the application of characteristics from digital games into non-gaming contexts. The concept under other names has attracted the interest of scholars for more than twenty years, due to its possible value in motivating students to learn. However few scholars have investigated ways in which the concept can be applied to building intrinsic motivation in employees. This is a particularly important area for research, as new generations who have been brought up with computer games become the dominant cohort within the workforce. This paper summarises the literature on game playing as a motivator, and outlines a variety of studied motivational responses to gamified systems as evoked from different categories of users, including students, consumers and employees. The paper goes on to discuss how the concept of gamification may interact with various theories of motivation, including Four-Drive Theory and Self-Determination Theory, and makes recommendations as to which gamification elements are relevant to the 21st century workplace, and may be effectively implemented in such a way that they can help to achieve personal and organisational objectives.

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1. Introduction

This paper explores the potential benefits of game application for improving workplace motivation. The scope of this article covers gamification research in relation to workplace outcomes and, in particular, its influence on intrinsic motivation. The term gamification was coined in 2002 by UK-based game designer Nick Pelling, who used the term to refer to the application of game-like accelerated user interface design to make electronic transactions more enjoyable and faster (Mobile Content, 2011). Since then, the term has acquired a broader meaning, and is now generally considered to refer to the application of characteristics and design techniques from games into non-gaming contexts (Deterding, Sicart, Nacke, O'Hara, & Dixon, 2011). Gamification concepts and techniques are now used primarily to engage and motivate their 'players' to behave in a particular way, and have developed a history of successful implementation in the pedagogical context through 'serious games' (Sawyer & Smith, 2008), experiential learning theory (Kolb, Boyatzis, & Mainemelis, 2001) and more recently through

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Gamified Learning Theory (Landers & Landers, 2015). From a pedagogical perspective, a learner helps construct their learning from decisions and successes or failures in the game; further iterations allow practice and improvements to embed learning through practice (Narang & Hota, 2015; Squire, 2005). Games can be extended to include others throughout these processes. Games have also been found to be useful as motivators in contexts other than education. For example, Nintendo's Wii and Konami's Dance Dance Revolution have been widely used to motivate sedentary people to be more physically active (Yim & Graham, 2007). Nonetheless, gamification has detractors (such as those who feel this area is a fad or gimmick) as well as advocates.

Despite the spike in theoretical interest surrounding gamification (Harman, Koohang, & Paliszkiewicz, 2014), literature support for applying the motivational properties underpinning an individual's desire to play games to the workplace context is somewhat sparse. Thus it appears that advocates of gamification have to some extent 'jumped the gun' in making recommendations without due consideration of the differing personalities and psychological mechanisms, which alter the subjective experience of games and gamification phenomena (Mekler, Brühlmann, Tuch, & Opwis, 2015). A number of earlier gamification studies were methodologically flawed by investigating the impact of multiple game elements at once, obscuring the extent to which individual elements exerted their effects on motivation and resultant performance (Hamari, Koivisto, & Sarsa, 2014). As a consequence, more recent studies have tended to pick-and-choose a small number of isolated gamification principles (e.g. team competitions, leader-boards, point systems, badges) and gauge employees' motivational responses to them (e.g. Meder, Plumbaum, & Hopfgartner, 2013), but have detected a disconnect between gamification principles, and motivational and performance outcomes. Nonetheless, understanding and harnessing the unparalleled motivational force that drives people to immerse themselves in games for hours on end could, as Nelson (2012) points out, give a tremendous boost to productivity, as gamification has already demonstrated success in motivating particular consumer behaviours, such as survey completion (Mavletova, 2015), the accessing of new websites (Hsu, Chang, & Lee, 2013), and mobile 'app' use (Hamari & Koivisto, 2015).

Despite that detractors maintain gamification is merely a gimmick or fad; preliminary findings clearly suggest that games and gamified systems have motivational potential for workplaces. To explore how gamification strategies can benefit workplace motivation, this paper first discusses the complex motivational processes underpinning gameplay, and how elements of gamification are transferable to task fulfilment at work. The paper then reviews the past research on gamification principles to present a balanced account of motivation, and how it interacts with work and play. The paper then explores some of the most frequently implemented gamification elements and draws parallels between these and the workplace. This leads to a discussion on how gamification can be extended to improve productivity. This discussion includes recommendations as to how gamification principles may be employed more holistically in 21st century organisations. Prior to the summary, we detail the ramifications of these recommendations for practitioners and theoreticians, the limitations of this paper, and discuss challenges for consideration in future research.

2. Motivation in gameplay and work

2.1. Intrinsic and extrinsic motivation

Hamari and Koivisto (2015) explain gamification as the use of technologies to simulate game characteristics with the potential to motivate 'players'. Motivation exists when a person is energised or moved to perform a task or behave in a particular way (Ryan & Deci, 2000). Motivation can vary in its level, intensity, or orientation. Motivation theories including early need theories (Herzberg, Mausner, & Snyderman, 1959; Maslow, 1943; McClelland, 1961), more contemporary theories such as Expectancy theory (Vroom, 1964), Four–Drives theory (Lawrence & Nohria, 2002), Equity theory (Adams, 1963), and many other theories and models (e.g. Goal Setting theory, Locke & Latham, 2002; Self-Determination theory, Ryan & Deci, 2000) will be familiar to scholars in the area. In some respects, these theories have competing and overlapping dimensions that may or may not apply in different circumstances. However, a basic and important distinction in any setting involves differentiating between intrinsic and extrinsic motivation. Intrinsic motivation occurs when a task is inherently interesting or enjoyable, whereas extrinsic motivation occurs when performing the task is a means to attain a desirable outcome (Ryan & Deci, 2000). Extrinsic motivators, by their nature, tend to be effective only until the desirable outcome has been achieved. For example, if a person is motivated to work hard at a particular task by the expectation of a promotion, as soon as that promotion has been achieved, there is no longer the motivation to work hard. On the other hand an intrinsic motivator – such as inherent interest in an activity – will continue to motivate a worker to work hard indefinitely.

In terms of gamification, this presents two avenues for motivational influence, as players can be awarded an extrinsic prize or benefit, or can satisfy an intrinsic want or need – such as the desire to succeed – as a result of game elements. Intrinsic motivators tend to be a function of the design of the job, and the values or interests of the worker, whereas extrinsic motivators tend to have little to do with job design. Engaging intrinsic motivation has benefits to the work setting because these motivators are more stable over time and require less management intervention, whereas extrinsic motivators require closer management scrutiny as affective motivational content escalates over time (Stock, Oliveira, & von Hippel, 2015). This appears in relation to salary increases; while the promise of a salary increase may be a motivator, the reality of a pay rise rarely is, as the worker adjusts their expectations and quickly sees their new salary as the norm.

This distinction between extrinsic and intrinsic motivation basically characterises the distinction between work and play. Work is typically perceived as being externally regulated and motivated by extrinsic incentives such as those described,