Gamification as an Effective Method in Developing Leadership Skills and Competencies

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Introduction

Gamification is a method of employing gameful design in a different context and including game-like experiences that promote a variety of activities and behaviors (Huotari & Hamari, 2017). Gamification has already gained much attention since its introduction, and has been mainly used in all fields such as teacher training (González-Fernández et al., 2022), e-learning (Saleem, 2022), promote environmental sustainability (Douglas & Brauer, 2021), language learning (Redjeki & Muhajir, 2021), and workplace transformation. Gamification in the workplace is believed to increase employee engagement (Iacono et al., 2020), and increase productivity (Mitchell et al., 2020). In recent years, global organizations have come to recognize the need to develop leadership competencies and leadership training (Fotso, 2021), and have begun to tailor courses to their own requirements (Howard & Irving, 2022).

The gaming industry has tapped into human motivation to create digital experiences that drive behaviors and increase engagement, capitalizing on motivation and incentive systems. In recent years, gamification has found increasing popularity in business, marketing, corporate management, wellness, and environmental activities, and it today has a wide range of applications. For instance, online education websites employ gaming aspects to increase user engagement. The greater the number of completed courses and lessons, the more badges a user earns. Sites such as eBay and Fitocracy incorporate gaming aspects to maintain user interest and promote friendly rivalry (Dicheva et al., 2015). Gamification as an instructional concept must be introduced into the curriculum for it to be effective. Concerns have been raised regarding the practicality of gamification as a leadership development tool, despite its effective incorporation

into the curricula of the aforementioned disciplines. This literature evaluation seeks to establish if gamification can contribute in the development of leadership competencies.

Literature Review

Leadership and Leadership Competency

The definition of leadership varies, some literature argues that a leader compels followers to do things they would not otherwise do, but leaders are frequently produced, accepted, and even revered voluntarily. Sometimes, leadership requires assisting others in recognizing their genuine interests (Calvert, 1992). Other scholars consider leadership entails persuading others to temporarily set aside their individual concerns and achieve a collective objective that is vital to the obligations and well-being of a group (Hogan et al., 1994). In addition to personality traits, knowledge, and skills, global leadership competencies also encompass behaviors (Cumberland et al., 2016). Day et al. (2014) classified leadership competencies as intrapersonal competencies which focus on individual leaders and interpersonal competencies which focused on enhancing leadership capacity. Each category is composed of distinctive individual abilities and social skills (Day, 2000). Gallup's "Strengths Finder" is one of the most used taxonomies and classifications of leadership and management talents, employing four primary dimensions: strategic, executing, influencing, and relationship-related leadership skills (Buzady et al., 2022). Leadership competencies focus on what leaders can do. however, it is point out in literature that the leader's character are also important aspect to consider when it comes to competency, since character and competence together determine leader's action and behavior (Strum et al., 2017)

Other research has categorized competencies in terms of emotional competencies, such as emotional, social, and cognitive intelligence (Boyatzis, 2011), or utilized confirmatory factor analysis to validate prior models (Seijts et al., 2015). There are a variety of frameworks available

for analyzing leader skills. The Australian Health Leadership Framework's guiding premise applies to all current and future leaders in any position within the system. Therefore, everyone, even health professional students, is accountable for leadership (Nuzzo, 2022). Additionally, leadership has a substantial impact on performance as a mediating variable. A review of the literature determined that the leadership contribution is more significant in the healthcare industry. Healthcare organizations that invest in the leadership development of medical professionals foster a work environment that encourages excellent communication among its members (Smith et al., 2022; Richter-Killenberg, 2022). However, there is a limited grasp of how to cultivate essential leadership skills at the individual and organizational levels (Holmemo, 2022).

Gamification and Motivation

Gamification is a method that has been used to improve student behavior by encouraging student dedication and motivation (Aguiar-Castillo, 2021; Ahmad, 2021; Ferriz-Valero et al., 2020). In its broadest sense, gamification is using games or game-based learning to encourage motivation and learning. Self-determination theory and pedagogy can potentially support its employment in the classroom at the tertiary level. Typically, gamification comprises a points, levels, and leaderboards system. Points serve as a quantitative type of user feedback in both gamified and non-gamified scenarios. Points have a variety of names, and their labels are occasionally adjusted to reflect the context in which they are used (e.g., "experience points"). Levels can indicate a status that may extend beyond the confines of the gamified system. In gamified systems, leaderboards are frequently utilized to satisfy a more competitive or relational impulse to compare one's progress and accomplishments to those of others (Oxarart &

Houghton, 2021). These courses are gamified as a result of the introduction of these gaming aspects into conventional instruction.

Games frequently include strategic decision-making or competency development, which naturally touches on the psychological requirements of learners for autonomy, competence, and relatedness (Charmelo, 2021). The three key factors of motivation, learning, and engagement are discussed in gamification research in connection to country or region, time of intervention, level of curriculum or content, gamified education programs, learner count, platform, game aspects, and theory (Nadi-Ravandi & Batooli, 2022). Music, architecture, and medicine are only a few subjects where gamification is used in education (Carrión Candel & Jacinto, 2022; Gue et al., 2022). Rodrigues et al. (2022) trying to find long term effectiveness of gamified system in learning, and found that the effectiveness of gamification will start at a rather high point, decrease, then arise with the increase of time points which follows a U-shaped pattern, this pattern is believed to be influenced by the novelty effect, but it also benefits from the familiarity effect, which has a good overall effect on pupils. Squire (2019) aims to increase student engagement, interactivity, and course performance through e-learning and classroom instruction using game-based learning strategies such as quiz-based PowerPoint games. Additionally, gamification can enhance students' learning abilities, their ability to process and retain information, and their ability to interact with digital media.

Even though gamification is a topic that becomes more and more popular, its definition still lacks a coherent understanding, which leads to incoherency in research methods, results, and outcomes (Hamari et al., 2014). Oftentimes, the media and researchers collapsed all the players into a simple archetype. However, even though this generalization is effective, it ignores the fact that different players choose different games for different reasons (Yee, 2006).

Gamification and Leadership Development

With the rapid expansion of online and virtual learning opportunities, researchers and practitioners are beginning to recognize the potential of games for leadership development (Sousa & Rocha, 2019). The majority of research techniques in related domains, including literature induction and observation, are founded on case studies of qualitative research. Research that uses disciplinary models has also been included. De Freitas (2013), for instance, suggests using the Electronic Leadership and Soft Skills Educational Design Model (ELESS) to evaluate and create successful designs for soft skills and leadership skills in multiplayer learning gaming environments. In addition to presenting some examples of research assessing how leadership is designed, used, and tested in current gaming environments, the research paper also reviews recent literature on distributed (shared) leadership models. To test the model, De Freitas (2013) design a case study to test the ELESS model using the leadership game (LSG), results showed that ELESS model can be used to evaluate the effectiveness of current games and provide guidance for the effective creation of new games that concentrate on soft skills and leadership development.

There is a lack of empirical validation for the theoretical models of leadership skills development using game-based learning (Sousa & Rocha, 2019). Gamification is used to motivate users to engage with an application by making it more fun (Rahimi et al., 2021; Bitrián et al., 2021).

The curriculum defines how to organize the teaching content, which is a tool for teachers and leaders. However, it can also be a source of confusion. Much evidence suggests that curriculum has an independent effect on teaching development rather than acting as a tool for teachers (Woulfin & Gabriel, 2020). Only a few studies have explored the instructional strategies

used in leadership education since 1990. Some of these studies collected data about the stakeholders' perceptions about leadership development, but only a handful of them paid attention to the instructional strategy, and only 10.2% of instructors will consider using role play activities, games, or simulation into their leadership development program (Jenkins, 2013). There is concern when assessing students' leadership competencies called the "Honeymoon Effect" (Rosch & Schwartz, 2009, p. 181), which means that bias may occur when participants evaluate the change an intervention had immediately following their participation. This may limit the generalization of the findings (Egan et al., 2021). Additionally, literature suggest that despite games can be an effective tool for developing operational understandings of models and theories, however, when employ game-based learning the instructor should treat games as a platform for other less formal process to emerge and should not take center stage (Børgesen et al., 2016).

In brief, gamification, or game-based learning, is a useful teaching strategy in education. However, there are few studies exploring the relationship between gamification and leadership competency development. Leadership discipline is still young, and there's still little known about the preferences of leadership educators and leadership teaching methods (Jenkins, 2013). This gap still exists, and leadership educators should consider integrating gamification as a teaching tool in leadership educational contexts.

Findings

This article seeks to establish whether gamification can contribute to the development of leadership competencies. From the literature, the definitions of gamification and leadership were identified. Gamification is a method of employing gameful design in a different context and including game-like experiences that promote a variety of activities and behaviors (Houtari &

Hamari, 2017), with the possibility of scaffolding learning in multiple contexts and areas (González-Fernández et al., 2022; Saleem, 2022; Douglas & Brauer, 2021; Redjeki & Muhajir, 2021), and usually result in high motivation (Aguiar-Castillo, 2021; Ahmad, 2021; Ferriz-Valero et al., 2020) and engagement (Iacono et al., 2020). Additionally, it has been noticed that much emphasis has been placed on leadership in the healthcare field (Smith et al., 2022; Richter-Killenberg, 2022). Leadership is the capacity to persuade others to cooperate in achieving a common purpose.

Gamification may be a useful strategy to utilize in teaching leadership; however, there is a lack of empirical validation for the theoretical models of leadership skills development using game-based learning (Sousa & Rocha, 2019). Instructional strategy in leadership education has seen limited development since the 1990s (Jenkins, 2013). The lack of attention given to leadership curriculum development might be the reason why there is not much literature on leadership development and gamification. However, judging by the successful implementation of gamification in other areas such as teacher training (González-Fernández et al., 2022), e-learning (Saleem, 2022), increasing employee engagement in the workplace (Iacono et al., 2020), and increasing productivity (Mitchell et al., 2020), In this sense, the perspective of incorporating gamification into leadership curriculum or training is viable and possible; it is also mentioned in literature that, in order to successfully implement the games in the curriculum, the game elements must be selected in the classroom (Galbis-Córdoba et al., 2017).

Conclusion

This article seeks to establish whether gamification can contribute to the development of leadership competencies. From the literature, it is shown that gamification is a rather established

education theory that already has many successful implementations in subject training that include leadership competency training. However, it is also noticed that the scarcity of those practices in leadership training makes it difficult to implement gamification in other fields or subjects. This analysis of the literature might be limited by its scoping review; a more in-depth, systematic review on gamification and leadership competency training or curriculum should be conducted to get a better understanding of the topic. It is necessary to perform additional study on the efficacy of applying gamification theory into leadership competency development curriculum or training in order to gain a better understanding of gamification's use in the leadership field.

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