The impact of virtual badges in gamification on financial education programs: An Empirical Analysis

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Introdução

Historically, the economic complexity resulting from the expansion of capitalism demands financial maturity from its agents to enable informed decision-making and ensure future savings (Savoia et al., 2007). In groups with less cultural capital, information often arrives late or distorted, perpetuating social inequality and less efficient markets (Bourdieu, 1997). The OECD (2018) emphasizes the importance of financial education to stimulate the economy through responsible lending, healthy consumer habits, and conscious financial decisions.

Problema de Pesquisa e Objetivo

This study aims to evaluate the effects of virtual badges as a component of gamification strategies in financial education programs. Specifically, it tests the hypothesis that the use of virtual badges enhances student persistence and course completion rates. By analyzing quantitative data from a financial education program, this research seeks to provide empirical evidence on the efficacy of gamification elements, thereby contributing to the literature on active learning methodologies and financial literacy.

Fundamentação Teórica

Gamification strategies in education are widely recognized for their potential to enhance engagement and learning outcomes (Costa & Marchiori, 2016; Hamari & Koivisto, 2014). Active methodologies position students as central actors in their learning journey, using playful elements to foster skill development (Kapp, 2012; Borges et al., 2013). Virtual badges serve as visual indicators of achievement, motivating students and validating their progress (Zichermann & Cunningham, 2011; Biles & Plass, 2016).

Metodologia

This quantitative, experimental study employed a longitudinal design to test hypotheses and evaluate interventions in a financial education program. Participants were divided into control and treatment groups, with the latter receiving virtual badges throughout the course. Data were collected via structured electronic surveys administered before, during, and after the intervention. Statistical analyses, including OLS multiple regression and logistic regression, were conducted to assess the impact of virtual badges on student persistence.

Análise dos Resultados

The results indicate that the use of virtual badges significantly enhances student persistence and course completion rates. In 2023, the treatment group showed a 63% peak participation rate compared to 38% in the control group. The analysis confirmed that virtual badges contribute positively to engagement, supporting the hypothesis that gamification elements can improve learning outcomes. These findings align with existing literature, showing that gamification strategies, such as the use of badges in virtual learning environments, increase the probability of course completion.

Conclusão

The study successfully achieved its objectives, demonstrating that virtual badges effectively increase student persistence in financial education programs. These findings corroborate existing literature on the benefits of gamification in education. The empirical evidence supports the integration of

virtual badges as a strategic component to foster sustained engagement and improve course completion rates.

Referências Bibliográficas

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