Exploring the impact of gamified elements on college students' learning in virtual learning communities

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Abstract

Purpose – Gamification has emerged as a dynamic force in education, with increasing interest in its impact on college students' learning. Most previous research regards gamification as a single element and only focuses on the cognitive level of gamification elements, lacking an overall exploration of the impact mechanism of gamification elements. Against the backdrop of virtual learning communities, we apply the cognition-affection-conation theory to examine the influence of various gamification elements on college students' online learning behaviors, examining both cognitive and affective pathways.

Design/methodology/approach – Data were collected through a predefined questionnaire from 11 Chinese virtual learning communities, with 587 respondents participating in the study. SmartPLS was employed to conduct a Partial Least Squares (PLS) analysis of the research model and test the hypotheses.

Findings – Our findings reveal that immersion and achievement-oriented gamification elements positively impact learning behavior. Conversely, the social gamification element exhibits a negative influence due to social burnout within virtual learning communities. This study pioneers a model to understand the intricate influence mechanisms of gamification elements on college students' online learning behaviors. The model contributes to the enriched exploration and practical application of college students' learning behaviors in virtual learning communities.

Originality/value – Unlike previous studies that often treat gamification as a single element and focus solely on cognitive aspects, this research explores both cognitive and affective pathways using cognition-affection-conation theory. By examining the influence of various gamification elements on college students' online learning behaviors in virtual learning communities, this study provides nuanced insights. In particular, immersion and achievement-oriented gamification elements positively impact learning behavior, while social gamification elements have a negative influence due to social burnout. This comprehensive approach deepens our understanding of how gamification affects students' learning experiences, enriches knowledge, and provides practical insights for educators and instructional designers.

Keywords Gamification elements, College students, Virtual learning community, Online learning behavior

Paper type Research paper

1. Introduction

The increase in online education platforms as educational resources has led to the emergence of virtual learning communities, which are becoming a popular model for college education