

Paper Title: Tailored gamification in education: A literature review and future agenda

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Summary

1.1 Motivation/purpose/aims/hypothesis

The primary motivation behind the study was to unravel the landscape of tailored gamified educational environments, shedding light on designing, evaluating the impact on students' learning outcomes, and identifying research gaps in the domain are the key areas of focus. The purpose was to provide a comprehensive overview of existing studies and propose a future research agenda. The study aimed to investigate the design aspects, evaluate the effects on student outcomes, and suggest directions for future exploration. The hypothesis revolved around the effectiveness of tailored gamification and the need for empirical evidence to substantiate its impact.

1.2 Contribution

The study contributes by offering insights into the current state of tailored gamified educational environments, highlighting the predominant focus on gamer types and the scarcity of empirical studies. It proposes a comprehensive research agenda, delineating key areas for future exploration, including comparative analysis, design effectiveness, automation challenges, and the need for empirical and longitudinal studies.

1.3 Methodology

A systematic literature review (SLR) methodology was employed to scrutinize relevant studies. A total of 19 primary studies were selected, and their methodologies, findings, and limitations were analyzed. The SLR facilitated the extraction of valuable information on the design aspects, computational approaches, and empirical evidence related to tailored gamified educational environments.

1.4 Conclusion

The study ends by summarizing important discoveries and proposing a research plan for future investigations in the area. It emphasizes the need for comparative analyses, effective design strategies, automation of the tailoring process, and more empirical and longitudinal studies to advance our understanding of tailored gamification in education.

Limitations

2.1 First Limitation/Critique

One notable limitation of the study is the limited number of empirical studies available for analysis. The dearth of experimental research hinders the establishment of robust conclusions regarding the effectiveness of tailored gamified educational environments. The reliance on theoretical studies and frameworks poses a challenge in providing concrete evidence on the impact of tailoring.

2.2 Second Limitation/Critique

Another limitation pertains to the absence of longitudinal studies in the selected literature. The depth of understanding is limited by the absence of research that investigates the long-term impact of personalized gamification on students' academic performance. Longitudinal studies could offer valuable insights into the sustained impact of tailored approaches, allowing for a more comprehensive evaluation.

Synthesis

Synthesizing the ideas presented in the paper reveals a critical need for addressing the identified limitations to advance the field of tailored gamified educational environments. The paper underscores the potential applications and future scopes by emphasizing the importance of empirical studies and longitudinal research. Bridging these gaps could pave the way for the effective design and implementation of tailored systems, offering personalized and engaging educational experiences. The synthesis points towards the transformative potential of tailored gamification, not just in theory but through evidence-based practices that can significantly enhance students' learning outcomes. The future scope lies in collaborative efforts to conduct empirical studies, develop effective design strategies, and explore automation possibilities, ultimately shaping the next frontier of gamified education.