

Impact of Mobile Gaming Application Usage on Academic Performance of Undergraduates in Rajarata University of Sri Lanka

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Abstract

As mobile gaming continues to grow rapidly as a digital activity, it is surprising that there is so little localised research on how it affects academic outcomes. This may lead to decreased study time, distractions during learning, and broader implications for health. This study aims to close this gap by investigating the impact of mobile gaming application usage on undergraduate students at Rajarata University of Sri Lanka. The independent variable, mobile gaming application usage, was examined across four major dimensions: gaming time, number of games played, peer influence, and gaming addiction. Academic performance, as the dependent variable, was assessed using indicators such as GPA and study habits. A deductive and quantitative research strategy was used, informed by established literature and theoretical frameworks such as Cognitive Load Theory and Self-Determination Theory. A sample of 376 undergraduates from all six faculties of the university was recruited using snowball sampling; however, this sampling strategy may restrict the generalisability of the findings. Correlation and regression analyses were conducted using SPSS software to examine the relationships between the variables, and a cross-sectional time horizon was adopted for the analyses. The findings indicate that the use of mobile gaming applications has a significant impact on undergraduate academic performance. The results demonstrate how gaming-related factors exacerbate distractions and reduce academic achievement, with practical implications for higher education such as implementing awareness programmes and digital wellness policies to mitigate these effects. By combining several influencing factors in a localised context, this study adds to the limited empirical knowledge about mobile gaming and education in Sri Lanka. It offers new insights for educators, researchers, and policymakers seeking to understand and address students' digital behaviour in academic settings.

Keywords: academic performance, gaming addiction, gaming time, mobile gaming, peer influence