

Minds in Play: Exploring Cognitive Effects of Video Gaming among Sri Lankan Youth

G.K.G.H.S. Jayathilaka¹ and T.U.S. Senarath^{2,*}

*Department of Information Systems, Faculty of Management Studies,
Rajarata University of Sri Lanka, Mihintale, Sri Lanka ^{1,2}*

*Corresponding author: udesh.senarat@mgt.rjt.ac.lk

Abstract

The rapid rise of video gaming among young people has generated growing academic interest in its psychological and cognitive consequences, yet limited attention has been paid to its effects in South Asian contexts. This study examines the cognitive impact of video gaming on Sri Lankan youth, a population of increasing relevance due to their high engagement with digital entertainment and evolving educational and social environments. Focusing on four core cognitive functions: working memory, memory retention, reading comprehension, and decision-making, the study adopts a quantitative research design with an explanatory and deductive approach. Data were collected through a structured questionnaire administered to 385 participants in the Colombo district, using a stratified sampling strategy to ensure representation across demographic segments. Reliability and validity testing confirmed the robustness of the research instrument. The findings reveal that video gaming exerts both positive and negative influences on players' cognition. Certain genres, particularly strategy and puzzle-based games, enhance problem-solving abilities, critical thinking, and reflective decision-making. In contrast, excessive gaming, especially involving violent or speedy content, was associated with diminished memory performance, reduced attention span, and poor decision-making. Moreover, the frequency, type, and social context of gaming emerged as significant moderators of these outcomes, underscoring the complex and multifaceted nature of gaming's impact. The study contributes to a nuanced understanding of video games as both potential cognitive enhancers and psychological stressors. Its findings carry practical implications for educators, parents, and policymakers, highlighting the need to foster balanced gaming habits that enhance cognitive benefits while mitigating risks. By situating the analysis within Sri Lanka, the research expands an in-depth understanding of gaming behaviour and human cognition and the study provides insights that are culturally specific and broadly applicable.

Keywords: cognitive psychology, memory retention, video games, reading comprehension, working memory