

Abstract

- Video games are modernized and built for access using specific electronic devices such as computers, video game consoles and mobile devices.
- Popularity has risen among many individuals of distinct age groups worldwide, to include the United States. There is a concern that adolescents may be the most impacted group when engaging in video game play.
- The purpose of this research project is to examine and review evidence found in studies related to the various types of effects associated with playing video games.
- The effects of video games are often seen in areas of a player's life involving their physical and psychological health, as well as overall welfare when exposed to present dangers in cybersecurity.

Introduction & Research Question

Introduction

- This project is titled, 'The Effects of Video Games', and led by project manager and independent researcher, Maria Carrillo.
- The assets for this research will mainly come from online resources such as scholarly databases like UHWO library and google scholar sites.
- The content which appears in video games includes many different themes and genres, each with their specific objectives and challenges.

Research Question

- The motivation behind this project is to **examine survey data related to the different kinds of effects playing video games has on a person.**

Hypothesis

- Often society refers to video games with themes displaying violent graphics as being negative and undesirable. Meanwhile, other video games associated with less violence and more decision-making abilities are more strongly encouraged and praised.
- The consequences of **video gaming can generally be understood as being either helpful or harmful** to an individual's overall wellbeing.

Research Design & Data Collection

- The assets for this research will mainly come from online resources such as scholarly databases like UHWO library and google scholar.
- Current sponsors include the University of West Oahu and Dr. Burrell who support the overall study by providing access to research finds and advising.

Results

- Effects associated with playing video games can affect a user in areas such as physical, mental, and cybersecurity.
- Physical effects of video games can be noticed in a player's body mechanics, cognitive functioning, sleep pattern and diet intake.
- Mental health effects can occur due to spending large amounts of time interacting in video games. Issues include depression and addiction.
- Cybersecurity threats include online harassment or solicitations, disclosures of private information, and others hazards like exploitations of user vulnerabilities.

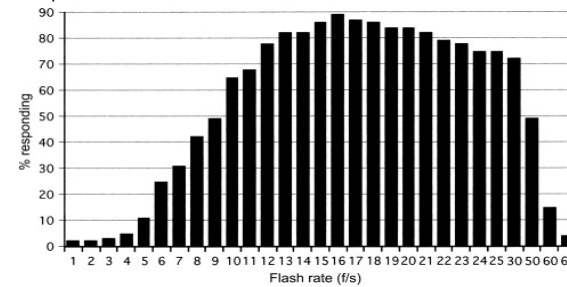


Figure 1. From Harding and Harding (2010).

Table 1. From Sanders and Feng

Sensory, Perceptual, and Cognitive Functions Exercised by Different Genres of Video Games

Function	Game characteristic	Action	Driving	Maze/puzzle
Sensory				
Detection	Complex 3-D setting, targets in clutter	*****	****	**
Attention				
Capture	Always-onset events	*****	****	**
Select	Discriminate/select significant objects	*****	****	**
Switch	Task switching, multitasking	*****	****	**
Divide	Multiple foci, track multiple objects	*****	****	**
Discourse	Dialogical events	*****	****	**
Visuospatial				
Coordination	Aiming, shooting, operating hardware	*****	****	**
Speed	Rapid action/reaction	*****	****	**
Memory				
Working	Allocate resources, make decisions	*****	****	**
Long term	Integrate knowledge	**	*	**
Cognition				
Spatial	Mental rotation, wayfinding, navigation	*****	****	**
Analytical	Solve puzzles, derive strategies	*****	****	**
Auditory	Speech, game sounds, music	**	*	**
Emotional	Arousal (threat)	*****	****	**

Note. Importance: ***** = very high; **** = high; *** = medium; ** = low; * = very low.

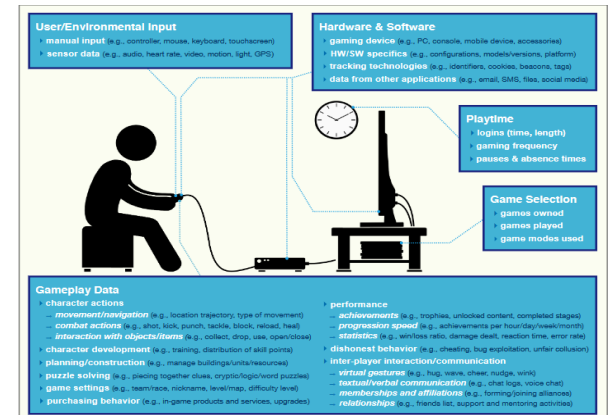


Figure 2. A classification of data types commonly collected by video games. From Kroger

Discussion

- The physical effects are evident in areas of the body, the brain, and in habits such as eating and sleeping.
- Mental issues can arise from gaming addictions and depression, even leading to lower academic success.
- A user's safety can also be at risk when facing cybersecurity risks such as online harassment or solicitations, disclosures of private information, and others online vulnerabilities.

Conclusions

- The results in this study indicate an association between playing video games and effects on a player's physical, mental and cybersecurity wellbeing.
- Certain video game genres are more encouraged than others with more problematic results linked to action video games.

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