

Chapter 5

How Can Advancement in Information Technology Help College Students During the COVID–19 Pandemic?

Evidence From the Video Game Industry

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ABSTRACT

A revolution in information technology advancements has been started in recent years. A part of these technology advancements is happening in the video gaming industry. This study investigates the effect of video games on college students' performance during the COVID-19 pandemic. The authors examined the impact of video games on students' academic performance from the lens of time spent on video games and their effects on students' well-being and personal life during the COVID-19 pandemic. This study proposed a conceptual framework that highlights the positive impact of video games on students' mental health and academic performance during the COVID-19 pandemic.

INTRODUCTION

A few days before the New Year of 2020, a very highly contagious virus from the family of the severe acute respiratory syndrome, COVID-19, originated and spread from Wuhan, Hubei Province, People's Republic of China (PRC) (Gharoie Ahangar

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et al., 2020; Huang et al., 2020; Tan et al., 2020). The COVID-19 pandemic put global public health in danger that the World Health Organization (WHO) declared a global pandemic (World Health Organization, 2022; Wang et al., 2020).

The number of COVID-19 infections has been increasing worldwide with the emergence of different variants. This situation continues to grow, even after the appearance of certain vaccines for the treatment of the virus, especially in the United States (US). Around 535 million cases and 6.31 million deaths worldwide and 85.4 million and 1.01 million cases in the US have been reported as of June 12, 2022 (World Health Organization, 2022).

There are some concerns about the duration of the COVID-19 pandemic; therefore, governments must have comprehensive plans and practical tools to control the outbreaks properly. In a study, He et al. (2020) examined emerging technologies to address the challenges of COVID-19 related to technology design, development, and use and how information technology can help scholars fight the COVID-19 pandemic. The COVID-19 pandemic has created a situation where the advancement of information technology is unavoidable for innovation in education and work (Xie et al., 2020). In addition, confinement restrictions from the authorities and the rapid adoption of remote and online work from home have changed the lifestyle of people (Loayza & Pennings, 2020; Yilmazkuday, 2020).

Among these people, college students are a group of people who are more sensitive due to the nature of their jobs and ages. Some schools have adapted to the crisis situation to offer online classes, and some families do not allow their children to spend their free time in public areas. Therefore, for the students to occupy their spare time, they needed to find interesting hobbies at home during the Pandemic that could help them focus on their school assignments.

Before the COVID-19 pandemic, around 2.5 billion gamers globally spent approximately 152 billion dollars on games (Wijman, 2019). In 2020, when the COVID-19 pandemic deteriorated most industries' profits, the video game industry experienced a significant increase. In late March 2020, video game sales increased by around 60% worldwide (Statista, 2020) because video games help people to have remote contact with each other during the COVID-19 pandemic.

Among these gamers, most are college students. Past research works in this area show different findings. Some researches show the adverse effects of extensive video gaming on school performance, while some suggest a positive relationship between gaming and students' academic performance (Balhara et al., 2020; Kovess-Masfety et al., 2015; Posso, 2016).

By considering the continuous COVID-19 pandemic situation and online and remote education from home, this study aims to propose a theoretical framework that investigates the role of video games on the academic performance of college students during the COVID-19 pandemic. The findings can help the universities'

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