

## THE INFLUENCE OF ONLINE GAMES ON THE CHARACTERISTICS OF HIGH SCHOOL STUDENTS

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### Abstract

Online gaming is deeply embedded in adolescent life and its effects on high-school students vary by motivation, play patterns, and context. This literature reviews current research to provide an overview of how online games influence student characteristics. Methods: independent literature searches were conducted across PubMed, and Google Scholar using literatures from at least 2020 on gaming addiction result based on several points: the potential for cognitive and social development, including enhanced problem-solving skills and the formation of robust online communities, the adverse impacts on academic performance and personal discipline, largely attributed to the displacement of study time and the intricate relationship with mental health, where gaming can serve as both a coping mechanism for stress and a contributor to conditions like depression and anxiety. Evidence suggests potential cognitive and socio-emotional gains alongside risks when play becomes compulsive, including displaced study time, sleep loss, and associations with depressive and anxiety symptoms.

**Keywords:** *Online Gaming, Adolescent Development, Academic Performance, Social Behavior, Psychological Well-being*

### INTRODUCTION

In this technology era, humans are adapting very fast. A massive part of this change is online gaming, which has grown from a simple hobby into a major habit and a new culture. This immersion in the digital world is especially noticeable in countries like Indonesia, where technology has been adopted so quickly that online games are now a core part of youth culture. With smartphones and fast internet everywhere, a generation of students has emerged from virtual world and think of it as the real one (Farillon & Fancubila, 2022) Gaming as a hobby continues to evolve and the demographics of who engages in videogames shifts and changes as gaming becomes more accessible through new devices for playing, mechanisms to purchase games, and opportunity to engage differently with game content through spectator and fan-based interaction (Mandryk et al., 2020b) Today, online games are more than just entertainment; for high schoolers, they're a part of their lifestyle. Data from Indonesia, for instance, reveals that online game enthusiasts are widespread, with games becoming one of the most popular products among teenagers (Radandi & al., 2023)

Many teachers have noticed students coming to class tired after staying up late to play games, which hurts their concentration and participation. For example, a case study at a high school in Sukaraja, Indonesia, observed that those addicted to online games were typically school-age children, from middle school to university level (Nurhidayati, 2024) Research in Philippine shows some link between excessive gaming time and Grade Point Average (GPA). It found a significant negative correlation, meaning that a higher level of computer games addiction was associated with a lower level of class performance (Farillon & Fancubila, 2022). The connection between online gaming and mental health might be the most complex area. Some evidence connects the problem caused by gaming addiction with negative mental health outcomes. The World Health Organization even included "Gaming Disorder" in its ICD-11, and the DSM-5 lists "Internet Gaming Disorder" as a condition, this showed concern about its potential to cause harm. Studies, including some with Indonesian teenagers, have found a significant link between online gaming addiction and symptoms of depression, social anxiety, and loneliness (Akel, 2022; Gong et al., 2024; Putri & Sari, 2023). This shift to digital life presents new challenges and opportunities for education. Teachers and parents have noticed new patterns in students that seem connected to their addiction of online gaming, such as changes in focus, academic drive, and social interactions.(Radandi & al., 2023)

**LITERATURE REVIEW****1. Cognitive Enhancement and Social Development**

Some research highlights the potential benefits of gaming. Certain types of games, especially games that demands strategic thinking and quick decisions, have been shown to boost valuable cognitive skills. Video games can improve problem-solving, spatial reasoning, attention, and creativity. These online worlds act as a complex learning environment where players can and have to experiment, adapt, and learn intricate rules, which helps them to develop their cognitive and critical thinking. Some studies found a positive link between a player's performance in a game and their exam results. This is where students change from traditional schoolwork to advanced digital skills that our formal education system doesn't recognize and teach at school. Some literature has shown that strategy game players often have better multitasking and decision-making skills while under pressure. (Cabeza-Ramírez et al., 2021; Cheng, 2021) For many teens, online multiplayer games act as an important space, a space away from home and school where they build real social connections. Research during the COVID-19 pandemic highlighted how crucial gaming was for helping people stay connected and feel less lonely during physical isolation. Players build strong in-game social within these virtual communities, creating supportive relationships and a sense of belonging that has been linked to a better mental health. Online interactions can help practice communication, teamwork, and negotiation, which helps build social skills in a digital world. (Cooper & Hieftje, 2021; Scholz, 2020)

**2. Academic and Self Discipline**

The idea is that time spent in gaming is time not spent on schoolwork, like studying or doing homework. Some studies confirmed this, showing a small but statistically significant negative link between long hours of gaming and academic performance. (Dananjaya & al., 2022). This academic slide is often tied to a breakdown in personal discipline. Problematic gaming, also known as Internet Gaming Disorder (IGD), is defined by a loss of control over one's gaming habits. Studies consistently show a strong negative link between self-discipline and gaming addiction. Addicted students are more likely to ignore their responsibilities, put off schoolwork, and struggle to control their impulse to play games. This lack of self-control can set off a chain reaction of negative effects, like sleep deprivation and poor focus in class, which only worsen the chance of academic success. (Afriwilda & Mulawarman, 2021; Elsayed, 2021; Liminanto, 2020).

**3. Well-being and Maladaptive Coping**

Some research found a clear correlation between online gaming addiction and symptoms of depression, social anxiety, and loneliness, including in studies with Indonesian teens. This connection suggests that when gaming becomes compulsive, it can worsen or even trigger underlying mental health problems. (Gong et al., 2024; Sahu, 2024). However, many teenagers start playing games specifically to manage their mental state. Studies show that a key reason for playing online games is to relieve stress, or to escape the pressures of school problems and family life. Games can offer a temporary escape, providing a sense of control, achievement, and social connection that might be missing from a student's real life. (Putri & Sari, 2023). Online games can be a healthy way to deal with everyday stress, but it can become an unhealthy coping mechanism when used to avoid facing real problems. This can create a cycle where student relies on gaming to cope with stress (like bad grades or family fights), which only worsen those problems, deepening their distress and making them feel the urges to escape reality even more. (Görgülü & Özer, 2023; Sari, 2020).

**4. Social Character Formation**

Students with more gaming hours reported spending less time in face-to-face interactions with family and local friends and participating in fewer school-based social activities. A lot of parents and teachers expressed concern that these students were becoming isolated. (Radandi & al., 2023) However, the students themselves described their social lives very differently. For most of the frequent gamers, online multiplayer games were their main social scene. They talked about making deep, supportive friendships with teammates from all over the country and even the world. They described their online "clans" or "guilds" as close-knit communities that gave them a strong sense of belonging and support, which lines up with what sociologists have found about online communities. (Frommel & Mandryk, 2024) Teenagers aren't becoming less social; they're just moving their social lives to digital spaces where they feel a stronger sense of community and purpose. This shift leads to a specialization of social skills. Students get very good at communicating through text, organizing complex tasks with a remote team, and navigating the social rules of online worlds. At the same time, they might get less practice with offline social skills, like reading body language or having spontaneous, face-to-face conversations. From this view, we can see it as a transformation of social skills adapting to the digital world they live in (Mandryk et al., 2020a).

**CONCLUSION AND RECOMMENDATIONS****1. Conclusion**

Online gaming has a very complex and powerful effect on teenagers that are addicted to it, studies show that gaming's effect isn't guaranteed; it's shaped by how someone plays, why they play, and what's going on in their life. This review concludes that while online gaming can be a great way to develop cognitive skills and build deep social connections online, but when used too much without any discipline or strict regulation, it is strongly linked to harmful effects on school performance, personal discipline, and mental health.

**2. Recommendations**

- It is recommended that schools develop comprehensive digital literacy programs for students to practice their practical skills for balanced digital engagement, including time management and self-monitoring techniques.
- Supportive strategies from family which involve open communication, setting rules, and showing interest in their gaming world are more effective than purely restrictive approaches that can breed resentment and secrecy.
- Parents are encouraged to guide their children toward a balanced lifestyle, ensuring that gaming does not displace essential activities like homework, physical exercise, and face-to-face social interaction
- Students should be encouraged to reflect on their own gaming habits, more importantly, their motivations. Understanding whether they are playing for social enjoyment or as a chronic escapism is an important step toward self-regulation.

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