

# Impact of Video Games on Adolescents' Family Relationships and Academic Performance

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**Abstract:** Video games have become an integral part of adolescents' lives, and they have a dual impact on adolescents' family relationships and academic performance. On the negative side, excessive gaming can lead to strained family relationships and lower academic performance, as adolescents who are addicted to gaming spend less time interacting with their families and have less concentration and self-control. However, family interaction and communication can be enhanced if parents are actively involved in their children's games. In terms of academics, moderate gaming can positively affect learning by improving cognitive skills and problem-solving abilities. Studies have shown that the impact of video games is closely related to the frequency and pattern of use as well as the home environment. Parents are advised to help their children develop a reasonable gaming schedule and choose educational or co-operative games to promote family relationships and academic development. Game manufacturers should also take responsibility for controlling adolescents' gaming time. This study highlights the need for a balanced approach to video games and emphasises the importance of parental involvement and industry responsibility in supporting the healthy development of adolescents in the digital world.

## 1 INTRODUCTION

Video games are interactive computer-based games that allow players to control on-screen characters or elements usually in a virtual environment (Fernández & Cortés, 2024). In recent years, as a product of digital development and the popularization of electronic products, video games, which are inherently fun, have become an indispensable part of young people's lives, but the status quo of online gaming addiction has ensued, affecting all aspects of their development. In popular perception, video games are often associated with negative outcomes, such as poor academic performance, increased aggression, and deterioration of family relationships. But there is still only a limited body of literature that provides people with information about how video games specifically affect adolescents' family relationships and academic performance, although in recent years a series of emerging studies have shown that the effects of video games may not be as one-sided as once thought. A rational view of video games can help develop the domestic gaming industry as well as the physical and mental development of adolescents.

Therefore, this paper aims to provide an understanding of how video games affect the lives of adolescents, especially in terms of family relationships as well as academic performance. This paper also attempts to provide parents, educators, and game developers with practical advice on how to enhance the positive aspects of video games while mitigating their negative effects. Ultimately, the goal of this paper is to promote a balanced approach to supporting the healthy development of adolescents in an increasingly digitalized world.

## 2 LITERATURE REVIEW

In recent years, video games have become an unignorable part of young people's daily lives. They have a profound effect on adolescent development. For a long time, the popular perception was that video games could only have a negative effect on adolescents in family relations and academic situation, but many studies in this area suggest that the situation may be different. This paper will discuss the effects of video games in terms of both negative and positive effects in turn.

## 2.1 Relationship Between Video Games and Families

Many studies have shown that video games have a negative impact on family relationships. First, according to Boson, the length of adolescents' gaming behaviour affects the quality of parent-child relationships over time. In other words, adolescents who are chronically addicted to video games usually spend less time interacting with their parents or siblings, leading to strained and distant family relationships (Boson et al., 2024). And some researchers explored the relationship between video games and teenage violence against parents. The study pointed out that if adolescents, especially younger children, were easily influenced by in-game values or mimic the behaviour of in-game characters during gameplay, they may verbally or physically attack their family members and deteriorate family relationships (Guerrero et al., 2024). In addition, Liu's study randomly selected 363 adolescents in Henan Province, aged between 12 and 18 years old, and used the adolescent game addiction questionnaire, the family intimacy and adaptability scale and the UCLA loneliness scale to conduct questionnaire surveys, and to study the differences between the adolescents' levels of online game addiction in terms of gender, number of years of playing, and age at each level (Liu & Zhang, 2024). Liu states that adolescent online game addiction is significantly negatively correlated with family closeness, with higher perceived closeness in the family being associated with a diminished need for online games (Liu & Zhang, 2024). Many adolescents are addicted to games because of loneliness or weak interpersonal interactions, but this can only provide them with short-lived happiness, and the loneliness may be exacerbated when they return to real life to face their parents' criticisms and accusations, which makes them want to be addicted to games even more, which is a kind of vicious circle that also deteriorates their family relationships.

However, the impact of video games on family relationships is not entirely negative. Since video games can accommodate multiple players, if parents have a positive attitude toward video games and choose to play with their children, they can effectively promote interaction and communication among family members, just as Zhang's research suggests that good characters like excellent time management skills and self-control ability are conducive to minimizing the negative effects of video games on intimate relationships. At the same time, parents and children can increase the quality of time

spent together and the quality of activities by choosing games with high binary interactivity as common leisure activities (Zhang, 2022). Common games not only provide parents and children with common interests and topics but also can increase the emotional connection between parents and children. In addition, if parents can understand adolescents' gaming behaviours and actively enlighten them, it can also improve family relationships. The study by Gao mentions in detail how parents can moderate their children's video gaming behaviours and how this mediation can increase trust and affection between parents and children (Gao et al., 2023).

Overall, the quality of family relationships is closely related to family members' attitudes towards video games. Moderate, shared participation in games can promote family closeness, while over-indulgence in games may bring about family conflict and alienation.

## 2.2 Relationship Between Video Games and Adolescent Academics

There is a more complex academic discussion about the relationship between video games and adolescents' academic performance. Many studies have shown that the effects of video games on academic performance are not single or direct but are often governed by a variety of factors such as individual differences, game type, and time of use.

Several studies have suggested that moderate use of video games can have some positive cognitive effects on learning, and Zeng found in the study of online games for college students the length of daily play and the reasons for playing were investigated. The college students in the sample mainly played online games for 3 to 5 hours a day, accounting for 46.5%; followed by 1 to 3 hours, accounting for 28.1%; and there were quite a number of students who play video games each day lasted for 5 to 8 hours, accounting for 17.9% (Zeng, 2023). He noted that sixty percent of middle school students played games for more than two hours a day, but there was no significant difference in motivation or academic performance between these individuals and those who were light Internet users (less than one hour of gaming), and some of these gamers even appeared to be better at gaming than other, even some gamers appear to be better (Liu & Zhang, 2024). This suggests that moderate video gaming can help improve adolescents' attention, reaction time, and problem-solving skills, which have a positive impact on academic performance. According to a study by Clear Research Group based on a Pew Research

Centre survey of video game play among 1,423 U.S. teens ages 13 to 17, found that more than half of teens label themselves as professional gamers and feel they can gain new knowledge and friendships from gaming (Group, 2024). More than 60 percent of teens think that their problem-solving skills have been improved through gaming (Group, 2024). Challenging tasks in games can enhance decision-making and strategic thinking, skills that sometimes transfer to academics to improve learning efficiency and performance. Additionally, the research of Ren uses meta-analysis to quantify the effects of 63 Chinese and international educational games on students' academic performance and shows that some educational games can not only help adolescents reduce academic pressure and maintain mental health but also increase adolescents' interest in and memory of the corresponding knowledge through the setting of game levels (Ren et al., 2021). This can promote positive academic development.

Inevitably, some teens are unable to control their gaming hours and the importance of distinguishing between gaming and real life, and gaming addiction creates problems in their academic lives. Several studies have emphasized the negative impact of overindulgence in video games on adolescents' academic performance. For example, Tang and Zhu found that some adolescents, especially younger children like under 13 years old, are easily influenced when they play violent and bloody games, resulting in their personalities becoming irritable and having difficulty concentrating, which affects their life and academic performance in school (Yang & Zhu, 2024). In addition, Yang found that 61% of minors played video games more frequently and 80% of adolescents begin to master video games at the elementary school stage, and a small number of people begin to contact video games at the kindergarten stage, and the contact with the online game population shows a trend of low age (Yang, 2021). There is this phenomenon to analyse the phenomenon of adolescent addiction in video games. He pointed out that excessive playing video games is prone to pathological physiological and psychological dependence. Game addicted adolescents are aware of the hazards of being deeply involved in online games but are still unable to extricate themselves from helpless behaviour. There will be anxiety, loss, irritability, and other emotional states of mind, which in turn seriously affect normal life. The addictive character of the game makes it often difficult for adolescents to formulate and implement effective study plans and self-control, resulting in a significant decline in academic performance. Prolonged gaming tends to make

adolescents addicted as well as having anxiety and emptiness in real life.

Thus, the impact of video games on academic performance depends on the frequency and manner of use, as well as individual differences. Overall, it seems that moderate gaming time with good time management can help adolescents develop cognitive skills to some extent, while overindulgence can negatively affect academic performance.

### 3 DISCUSSION AND SUGGESTION

Based on the above analysis of the literature the present study of this paper can see that video games as a new product, adolescents can easily be influenced by the content inside, thus bringing negative effects on family relationships and academics, but if effectively controlled, video games can also enhance family relationships and have little effect on academics. Therefore, it is suggested that parents should help their children set a reasonable schedule for video games to ensure that the games do not interfere with family gatherings and daily interactions. Moreover, they can enhance communication between families by playing some games together. At the same time, parents can guide their children to choose educational games or games that require cooperation among family members, to promote cooperation and understanding among family members. In addition, the balance between play and school can be flexibly adjusted according to the age and personality of the child. For example, for younger children, parents can intervene more and guide; for older teenagers, they can establish a relationship of trust, so that they can plan their own time to develop a reasonable game relaxation time, so that both labour and leisure to enhance learning efficiency. The game manufacturers should also assume the corresponding responsibility for the youth's game time to make the corresponding restrictions so that the youth's game time is controlled in a reasonable range.

In addition, the three factors of video games, family relationships, and adolescent academic performance will also affect each other. A good family environment will reduce the probability of adolescents being addicted to video games, which will make them invest more time in sports or study, which will help to improve adolescent academic performance. Meanwhile, good academic performance is more likely to make parents believe in their teenagers' self-control and relax their control

over their children's gaming time, which can improve the relationship between family members and reach a virtuous circle. Therefore, parents need to actively participate in, guide, and manage their children's use of video games to help them find a balance between gaming, schooling, and family, and to promote the holistic physical and mental development of young people.

## 4 CONCLUSION

This paper examines the dual effects of video games on adolescents' family relationships and academic performance by analysing existing literature. Studies have shown that moderate use of video games can help enhance adolescents' cognitive abilities, problem-solving skills, and in some cases can promote interaction and communication among family members. However, over-indulgence in video games may lead to estrangement of family relationships and a decline in academic performance. Taken together, the effects of video games on adolescents are not singularly negative but are closely related to the frequency and mode of use as well as the family environment. In addition, parents are advised to help their children set reasonable play schedules to ensure that games do not interfere with family gatherings and daily interactions. Meanwhile, parents can promote communication and bonding among family members by playing games with their children. In addition, the balance between gaming and schooling should be flexibly adjusted according to the age and personality characteristics of the children. Game manufacturers should also take the responsibility to formulate relevant measures to control teenagers' gaming time to ensure that it is within a reasonable range.

However, there are some shortcomings and limitations in the study of this paper. Firstly, the study mostly relies on questionnaires and self-reports, which may have participant bias and fail to fully understand the real gaming behaviour of adolescents. In addition, the impact of different types of games on adolescents is highly variable, and future studies should further refine and analyse the impact of different types of games such as violent, educational, and social games.

Future research can be expanded in several directions. First, long-term research on game addiction and its effects on psychological and social behaviours should be strengthened, and long-term research on the effects of video games on adolescents of different ages should be explored. Second, more

experimental studies can be combined to further verify the specific effects of different types of games on cognitive ability, academic performance and social skills. Finally, with the continuous development of the gaming industry, future research should focus on the potential impact of emerging gaming technologies, such as virtual reality, on adolescent growth.

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