

Research on the Benefits of Digital Games for Adolescents

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Abstract: *Whether video games are beneficial or harmful to society has always been a hot topic to debate, with many people having stereotypes of video games, thinking that it is merely a waste of time. However, through research and examples in real life, it has been shown that video games also have its value and advantages that can benefit society and individuals (especially teenagers) in many ways. Additionally, through further research, solutions have been developed to minimize the drawbacks of video games while maximizing their benefits to society.*

Keywords: *Video games' value, Societal benefits of video games, Balancing video games' pros and cons*

1. Introduction

When mentioning the phrase “playing video games”, it would often evoke one’s negative thoughts and stereotypes towards it, considering it as a complete waste of time. Very commonly, parents are strongly opposed to the idea of letting children play video games, thinking that video games do not have any actual benefits in life and are highly addictive. For instance, in China, the issue of whether video games are actually beneficial to children’s lives and future has always been a hot topic for debate, with some Chinese parents who saw the negative impacts of video games on their children even begging in front of the camera to ask game developers to close all the video games. Studies and surveys about parents’ attitudes towards video games have been revealed and support the claim above. To be specific, most of the parents being surveyed think that addiction to video games is common, and the violent features contained in some of the video games can be harmful to children, therefore “many prefer to regulate or limit access to games based on content” (Franzò)^[1]. In other words, parents not only consider video games highly addictive, but also think that they should interfere and let their children have less access to video games, so they can prevent children from being exposed to violent or inappropriate features in certain video games. Additionally, the drawbacks of video games, such as the effects of violent video games on one’s antisocial behaviors and aggression, are shown in several research in the previous years (King et al.). In simple words, this means that video games that involve violent features can lead to an increase in children’s aggression and behaviors of not being willing to socialize and build relationships with others, leading to certain mental problems. However, everything has advantages and disadvantages, with video games the same, indicating that they can become “valuable” and beneficial with a good use of video games. Therefore, this essay aims to explain the positive impacts of video games on teenagers while using research to synthesize solutions that can help maximize the benefits of video games while minimizing their drawbacks.

2. Example of Negative Consequences

First of all, admittedly, parents’ concerns do not come from nowhere, and there are also real-world examples of children being negatively affected by video games that explain why parents become more and more concerned about the use and value of video games. Take Yang Keping (Director of the Addiction Medicine Center of Beijing Huilongguan Hospital) as an example. According to what Yang Keping said, the patient is a student who was highly addicted to video games during high school, causing a rapid drop in his academic performance. Fortunately, the student’s parents have taken immediate action to regulate his time spent on video games and improved the student’s scores in high school, which allows him to enroll in a good university. However, the student soon returns to becoming addicted to video games again after entering the university with no restrictions on video games by the student’s parents^[2]. To elaborate, the student dropped out the school and dedicated approximately 15 hours each day to playing video games, with no friends in real life, no connection with society, and no care for personal

hygiene. This soon results in his classmate reporting the situation to the school, and eventually, the school suggests the student's parents offer the student certain treatment in the hospital. This example not only illustrates how a single person can be negatively affected by video games, but also acts as a reflection of thousands of teenagers who may be potentially influenced by it, justifying why parents often determine video games as a "bad thing" or a waste of time.

3. Benefits of Video Games (Academics)

On the other hand, frankly speaking and viewing video games with an objective perspective, they are not a total waste of time and also have their own benefits for people. To specify, there are 3 main aspects that video games can bring benefits to (if harnessed correctly), including academic performance at school, both mental and physical well-being, and job opportunities. In terms of the aspect of performance in school, video games can make it easier and more enjoyable for students to learn and acquire knowledge by harnessing their interest in them, making the learning process more joyful and interesting, and thus fostering the growth in their academic performance. According to research, a study conducted by Adachi and Willoughby in 2013 "showed an indirect mediation effect such that playing strategic games predicted higher self-reported problem-solving skills, which, in turn, predicted better academic grades" (Granic et al.). To elaborate, this means that playing strategic games can possibly foster the improvement in quick and critical thinking skills, allowing students to practice making quick and beneficial decisions to maximize the profit or goods that they gain in video games^[3]. This process of decision-making also links to the procedure to address certain problems, and with better problem-solving skills, students will be able to tackle academic problems, which leads to better academic performance in prediction, showing how video games can positively affect teenagers' performance at school.

Moreover, there are existing examples that can justify the point above. For instance, Simon Breyney, one of the teachers at the University of Saint Louis in Spain, often uses video games to teach lessons related to the acquisition and learning of language. To be specific, Breyney finds his level of English rapidly improving when he is playing video games during a period of time in his youth. This inspired him to investigate the connection between video games and the learning of certain languages. Thus, he tried to use video games such as Assassin's Creed and Final Fantasy to teach English and Italian. Unexpectedly, the use of video games has significantly improved the students' efficiency in the acquisition of languages. To specify, it not only results in faster learning speed (students only used 1 semester to grasp all the knowledge required for the whole school year), but also a higher average score in comparison with another group that doesn't have this style of teaching, revealing how impactful video games are in the field of education and how it can positively influence students if they are used in the correct way.

4. Benefits of Video Games (Health)

Another aspect, which is people's mental and physical health and well-being, can also be positively influenced by video games. To elaborate, speaking of mental well-being, video games can make people better and more mentally healthy. According to research, video games, especially under distressful circumstances, can help players to temporarily put worries of problems in real life aside while stimulating the release of dopamine in one's body that allows them to feel a sense of comfort and pleasure under stressful situations (Pallavicini et al.). Thus, these positive feelings caused by dopamine and the temporary absence of stress can effectively diminish the negative feelings that arise when teenagers are facing difficulties in life, allowing them to maintain their mental health and regulate their mood under unpleasant conditions, which is beneficial to one's mental well-being. An example that illustrates how video games help with teenagers' mental health is a video game called "SPARX" that helps reduce teenagers' levels of depression. To be specific, research has been done with 168 teenagers, with an average age of 15, who have experienced problems with depression. These teenagers have been randomly separated into 2 groups, with one group receiving the traditional treatment for depression while the other group receiving the innovative treatment that involves playing the game SPARX. Results have shown that 44% of all teenagers from the innovative treatment group have fully recovered from depression, while only 26% from the traditional treatment group have the same level of success in the process of reducing and eliminating depression (information from the 7th link in the citation list). Therefore, this data clearly demonstrates how video games can be beneficial for one's mental well-being by making teenagers feel positive and helping with the recovery of depression, which is even more effective than the traditional way of treating depressed patients. Additionally, this example also reveals how video

games can not only be used as entertainment in normal conditions, but also as an innovative tool in a specific context, such as treating patients with mental illnesses, which may be able to address certain problems more successfully.

Moreover, video games can also be harnessed to benefit one's physical health. To illustrate, there is a type of video game called "active video games" that requires players to actively move around and exercise in the real world in order to successfully accomplish tasks in the game. To be specific, the player needs to control a rabbit, for instance, in an active video game, and aims to escape from the wolf behind it. In order to succeed in this task, this active video game may ask the player to run as fast and as long as possible, therefore encouraging them to perform more intensive physical activities. According to research, active video games have been found to help diminish the mass index of both children's and adults' bodies (Santos et al.). In other words, active video games foster an increase in one's physical activities, which leads to a drop in their weight and prevents obesity that can cause a variety of bad health consequences. By avoiding obesity and constantly exercising, the active video games can help teenagers to gain a good physical health status, thus improving their physical well-being. Besides, other types of video games can also become beneficial to teenagers' physical health, and the game "Re-mission" is a great and representative example. To elaborate, cancer has always been a big problem that people want to address, therefore, the organization "Hopelab" designed a video game that is specifically used to help patients with cancer, especially teenagers, understand how the procedure of treating cancer works. By letting the patients play this video game, it has been found that it can give patients a feeling of control since they know how doctors will treat them in the next stage, thus reducing the stress and even the pain in the process. Furthermore, after taking medicine for a while and noticing the body recovering from cancer, some teenage patients may start to reduce the amount of medicine intake or even just stop taking medicine since they think the cancer in their body is already eliminated. However, by playing the game "Re-mission", they will realize that although cancer is no longer observable, it is still not fully eradicated in their body. If they actually stop or reduce the medicine intake, the cancer can thrive again, and the problem will aggravate. To put it in simple terms, video games like Re-mission can become useful when trying to improve one's physical health, with wide application in various conditions (from normal but interesting exercises to recovery from diseases and illnesses), which clearly indicates that with the correct use of video games, they can bring significant and positive impacts to people's physical health instead of only harming one's eyes.

5. Benefits of Video Games (Job Opportunities)

Other than using video games as a tool for improving health and academic performance, they can also be harnessed as an opportunity for one's future career. To specify, as video games developed through time, they have received recognition from the global sports organization and started to appear in tournaments such as the Asian Games in Hangzhou (China) in 2022^[4]. According to research, by 2021, the total profit gained from gaming tournaments has reached 1084 million dollars. In China, 86% of all players who see gaming as their job receive a salary that is around 1 to 3 times greater than the average salary in their area, and the demand for more professional gamers is increasing. All information and statistics above show how the new market of viewing gaming as a career is beginning to rise in its fame and economic value, which provides more job opportunities and options for teenagers' future careers. With more attention to video games and their tournaments, teenagers can actually make a living from playing video games and even generate a great amount of money from it. For example, Counter-Strike 2 (CS2) is a first-person shooting game that involves an intense and competitive contest between 2 teams, requiring good aiming skills, reaction speed, strategies, techniques, etc. Over the past few years, it has been a famous video game with a lot of gaming tournaments. One of the professional CS2 players, Nico, is famous for his precise aiming and gun-controlling skills, even if he begins to lose fame as a new star, Donk, starts to become the top 1 CS2 player, he is still able to earn a salary of 95,000 dollars per month. This shows that video games can not only be an entertainment, but in fact, also a platform or career that teenagers can earn a living from, which can even allow players to earn a lot higher salary than people in other careers if performed well as a professional player. Additionally, winning tournaments and fighting against other teams is just part of professional gamers' income, since other aspects such as gaming on live, having sponsorship, and advertising for certain products or services can also increase a professional player's monthly income.

6. Solution to the Problem

As mentioned above, video games have their own value and benefits to society when used in the correct way. However, it can be hard to define what specifically is the “correct” way to harness video games. When generating solutions to tackle the disadvantages of video games while thinking about the right way to use them, there are two main aspects that should be taken into account, including players themselves and the game developers who provide players with these video games. In terms of players, they should be more aware of the time that they spend on video games every day, while taking a rest for their eyes by going out into nature after playing for an hour. By constantly resting one’s eyes and having connections with the outside world, problems such as a decrease in eyesight or a weak relationship with others and society can be avoided, allowing players to enjoy the entertainment in video games while having a good life in the real world. Since the example of the negative impacts of video games shows how teenagers suffered the negative consequences of consistently playing on their electronics for too long, the method of constantly taking a break from it may successfully help address the issue. Moreover, when playing some video games that contain violent features, its influence on teenagers’ mental health is unavoidable. However, players are not constrained to only video games that involves violence, but can also choose to play other games that contains graphics and gameplay that is more suitable for teenagers that are still not mature enough to handle violent games. For instance, video games such as *Stardew Valley* creates a very relaxed atmosphere with the central gameplay being farming, cultivating plants, taking care of farm animals, and make a living in a small town. With the cute, pixel graphics in addition, *Stardew Valley* is less likely to negatively affect teenagers’ mental health, but rather gives them a therapeutic and relaxed gaming experience which calms them down and regulates their mood.

Despite the methods that players can apply to use video games “correctly”, game developers should also dedicate their effort to preventing video games from harming teenagers. To be specific, like most video games in China, a page with words warning that some content in the game is not suitable for a young age group should be presented when the video game is launched to ensure that teenage players are fully informed and aware of what they are playing and what violent features they may encounter. This allows them to immediately know whether they should play this video game or not, which prevents them from being mentally influenced by certain features and content in the game^[5]. For example, if a video game contains quick switches in multiple scenes and shaking screens, then game developers should warn the players to be aware that the game may cause people to feel dizzy and they should instantly quit the game to recover from illness, which allows players to keep an eye on their mental status when playing the game and ensure that if they are feeling ill, they know what they should do to stop the unpleasant feelings. Furthermore, educational organizations should cooperate with game developers to create educational video games such as the “Re-mission” as mentioned before, or “*Minecraft: Educational Edition*” that teach players how to program, which is both beneficial for teenagers’ current academic performance in school when accomplishing tasks related to coding and also for more job opportunities in the future with a basic knowledge and understanding in simple coding and programming.

7. Conclusion

All in all, it is undeniable that video games have their downside, and the reason for stereotypes and prejudice towards them is obviously not coming from nowhere but from many real-world examples of teenagers and even adults being misled by them. However, video games are just a tool, or a double-edged sword, which can be harmful if used in the wrong way, but can also be beneficial if harnessed correctly. To illustrate, video games can not only help elevate one’s performance in academic areas, but can also benefit people’s (especially teenagers) mental and physical health while providing more job opportunities and another innovative choice for future careers that can possibly give people a high salary in return. Additionally, to be able to use video games in a correct and beneficial way, players should be aware of the time and type of video games that they play to avoid being negatively affected by them, while game developers should also contribute their effort in making their video games more suitable for teenagers to play, such as by warning players about violent content in the video game or designing a game that specifically has a educational purpose inside it. Video games are not only for gaming and entertainment, but can also be seen as an innovative tool that has great potential in influencing our modern society in a beneficial way. On the other hand, it is also worth mentioning that the advantages of video games that have been discussed in this essay only apply to reality if people are using them in a way that improves themselves instead of aggravating certain problems and making them retrogress. Furthermore, video games are not only a tool, but also a reflection of teenagers’ ability to self-control. If the issue of self-regulation is not tackled in the first place, then it can be difficult to play video games in a rational way,

which can lead to deepening people's stereotypes and prejudice towards it.

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