Research on the Influence of Video Games on Children's Growth in the Era of New Media

Ailin Wan¹*, Fangjie Yang¹ Siyang Liu¹ Wenyi Feng¹

¹College of Humanities, Sichuan Agricultural University, Ya'an, Sichuan, China
*Corresponding author. Email: 374926312@qq.com

ABSTRACT
The age of technological advancement has led to the rapid development of new media. Among them, video games have both positive and negative effects on children's growth and development. Research shows that: playing video games has a positive bearing on the basic mental processes such as decision-making, perception, memory, and attention; by inculcating some idea development skills into the little minds, video games make children's thinking ability more acute; in cognitive development, video games facilitate the social development of children and avert risks such as stress and depression; in cooperative model of video games, children can understand the value of cooperation in the process of growing up, so as to achieve better results. However, the longer the time children spend playing games, the poorer they become in school; video games will also lower children's attainment of information, promote children's violence, antisocial behavior and social isolation. In a word, it has been proven that video games contribute to the positive development of children through the inculcation of values such as resilience and positive competition. These games have also taught children the value of teamwork and cooperation, which are important skills in child development. At the same time, video games also promote violence, reduce professional social behavior, and even cause poor performance in school. It is in this context that video games should be rationally evaluated.

Keywords: video games, children education, thinking model, mental processes, violence, antisocial behaviour

I. INTRODUCTION
The age of technological advancement has led to the rise of many things that children and adults can do on phones and computers. In the gone eras, children would congregate together and play ball games, athletics, or other games that involved physical interactions. The modern era has led to the current phenomenon where children are locked up in houses, with little chance of knowing their next-door neighbours. With such a turn of events, leisure times are used either connecting with friends using social media platforms or playing virtual games such as FIFA and Need for Speed (NFS). The virtual games have created a distance between the thinking capabilities and development of children in the modern era and in the past times. Video games have educational impacts as well as some negative effects on the growth and development of the child. The games may influence their ability to interact in real life, either positively or negatively. Not only do video games affect the ability of a child to cope socially and physically, but they also lead to both positive and negative long-term effects in their development.

II. ADVANTAGES

A. More acute thinking ability
Playing video games affects the thinking of children because it causes them to be more calculative before they take any actions. They have a positive bearing on the basic mental processes such as decision-making, perception, memory, and attention. According to Gray (2015, p. 1), most video games require children to be focused on the virtual object with which they are playing [1]. By keeping track of common mistakes that lead to the early termination of a game, a child can easily avoid some of the mistakes in the course of the game. The games affect a child's decision-making process by requiring them to choose between several tools. For example in NFS, a child may be required to choose between several roads or even buy spares for their virtual vehicles. The ability to make the best choice will definitely have a bearing in the real life of a child. The perceptions of a child are augmented by the fact that video games require children to hold a lot of information in their mind. They are at liberty to decide which information to act upon first, or in what order (Gray, 2015, p.1) [1]. Gray further asserts that children who immerse themselves into active virtual gaming
slowly acquire the building blocks of intelligence. Video games require children to make split-second decisions, failure to which they are considered losers. In a bid to remain at the top of the game, the child sharpens their skills, which affects their mental development out of the scope of the game.

Video games, due to the rate at which children are consuming them, should inculcate some idea development skills into the little minds. Hughes states that a child's involvement in gaming helps them to become more accustomed to their environment, and may even give them some survival skills (2014, p. 1)[2]. Children who are accustomed to phone and computer video games have basic ideas about some aspects of life such as reading the small print and driving. As such, they get some ideas on how to survive in risky environments such as busy highways. Real life requires children to be exposed to some early life lessons such as doing several things at a go. Hughes reiterates that children who are involved in video gaming get used to multi-tasking (2014, p. 1)[2]. At the beginning of the game, the players are expected to set some objectives and follow a rapidly changing environment. This sharpens the thinking capabilities of children by exposing them to the kinds of decisions they are expected to make some years later. Due to the benefits of video gaming on quick thinking, the United States military has been using warfare simulation games to train their officers on quick decision making. In children, video games act to arouse these skills and create some mental awareness of hard situations in children.

B. Avoiding the risks of stress and depression

Although video games are treated as pastimes in most homesteads, sometimes attracting scolding from parents, they are important in cognitive development. Carras et al. (2017, p. 71) state that games such as the Solitaire game Free Cell is an important therapeutic tool in addressing some forms of cognitive impairment[3]. Not only are the games useful in promoting the mental/cognitive development of children, but they are also important tools in molding the physical development of a child. Games such as Pokémon Go have been shown to promote physical involvement among children who have the problem of engaging (Carras et al., 2017, p. 71)[3]. One of the characteristics of video games is that they are appealing to look at and engage in. With this appeal, they facilitate the social development of children and avert risks such as stress and depression. Children need to grow up in a loving environment for them to function optimally in the future (Carras et al., 2017, p. 72)[3]. Video games, when played together, foster strong social relationships that are important in predicting the health of both the children and the older population.

C. The value of cooperation

The digital era has ensured that children shift their focus from physical playgrounds to digital virtual ones. Even with this paradigm shift, it is important to note that children do not play alone. The video games are played either cooperatively or competitively. Children bond with one another and learn the value of cooperation together (Lobel et al., 2017, p. 886)[4]. Video game designers have come up with cooperative game modes where children can combine their efforts/ideas to overcome some hurdles. With such game modes, a child grows up knowing the value of working together to achieve better results. A child cannot develop their thinking abilities without going through some learning experiences. Hughes (2014, p. 1) points out that video games have learning experiences and are stimulating[2]. They are unlike passive pastimes such as watching television. According to Hughes, video game developers have come up with practical video games such as driving and pilot simulations that expose children to the real environment. Video games are laced with scientific, historical, political, and general educational information that is helpful to children in sharpening their wit and intelligence. Children who participate in active video gaming such as "Shooter" have been proven to have more accurate attention allocation than those who rarely participate in video games. This is because, as Granic, Lobel, and Rutger argue, gamers acquire skills such as focus, resilience, and mental visualisation skills (2013, p. 68)[5]. Such skills are also taught in formal schools, and video games seem to be slowly catching up with education in promoting child development and thinking skills.

III. DISADVANTAGES

A. Lower grades

With all the benefits that video games have, they also have some negative roles to play in the development of children. Parents who allow their children to spend most of their leisure times playing video games report that the high-frequency results in poor performance in school (Karimpur and Hamburger, 2015, p. 1747)[6]. Several studies have shown that the longer the time children spend playing games, the poorer they become in school. Children tend to imitate all the behaviours they pick from activities they involve themselves in. As such, children who play games too much become addicted and score lower grades. Karimpur and Hamburger write that addiction to video gaming results in a lot of time spent playing and may skip doing their homework (2015, p. 1747)[6]. Like everything other game, video gaming affects the personal, social, and physical development of an individual. If the child and their parents are unable to strike the balance between leisure time and study time,
it bears on their performance. Also, studies have revealed that active video gamers pick issues with their teachers, such as arguments and fighting with fellow students. This lowers their attainment of information.

B. Violent behaviour

Another negative impact of video games on child development and thinking is that they may promote violent behaviour among children. According to Kuhn et al. (2018, p. 1), video games occupy a very vital position on the development of a child, and they result in both internalising mental behaviour such as depression and externalising behaviour such as violence[7]. Not only do children become violent, but they also portray waning Prosocial behaviour, increased aggression, and antisocial tendencies. Simulated violence in games such as shooter tend to make the children immune to violence, and they can start acting guided by the tendencies they see on the games. This violence that is meted on their peers, siblings, and parents creates social boundaries and may present the child as a lone ranger who keeps their feelings of hurt to themselves. Kuhn et al. state that most young bullies have viewed violent content and their behaviour become inclined to what they watch (2015, p. 2). The video games are interactive, and ones that involve violent acts such as shooting reward the children for high levels of violence. The minds of children receive these points "rewards" for appreciation. This leads to a learning behaviour that prods children to become more self-centered and ready to release aggression upon the slightest provocation.

C. Anti-social behaviour and social isolation

Thirdly, video games promote anti-social behaviour and social isolation. Due to the nature of modern society, people prefer to spend their lives within the confines of their compounds, away from the disturbance of the outside world. These behaviours have been generously passed down to the children. Due to the addictive nature of video games, children may spend a lot of time on them and in this way neglect social interactions, even with family members (Kimmig, Andringa, and Derntl, 2018, p. 736)[8]. This could particularly be the case when children participate in competitive games. If a child does not understand that competition in games is actually healthy, they may isolate themselves and prefer to spend a lot of time on the phone and computer screens. According to Kimmig et al., ongoing violent video game users have reported higher inter-personal deficit traits as opposed to those who have recently quit consumption of video games and those who have never used them (2018, p. 736)[8]. The society shapes an individual, aligning them with the values it is made of. Due to the high amounts of time spent playing video games, there is delayed moral development in excessive consumers. This isolation has led to immature moral reasoning and moral disengagement. The result of this is that society has produced individuals who would rather interact with peers on social platforms rather than on a one-on-one basis.

IV. CONCLUSION

The change in times from the analog to the post-digital era has brought good tidings in the age of human development. The innovations that man has come up with have resulted in the betterment of life by making things more efficient. The modern parent is engrossed in busy money-making affairs, meaning that their children get to see them only once in a while. The compensation for this, surprisingly, is in the form of gadgets that have made children more antisocial as they interact with games and other forms of information. Well, it has been proven that video games contribute to the positive development of children through the inculcation of values such as resilience and positive competition. These games have also taught children the value of teamwork and cooperation, which are important skills in child development. With such positive contributions, video games have also contributed to violent behaviour, a decrease in prosocial behaviour, and even low performance in school. It is at this backdrop that video games are evaluated. Since they have two sides, regulation should be at an all-time high if parents are to see the best they have always wanted in the development of their children.

References

[1] Gray, P. (2015). Cognitive Benefits of Playing Video Games. Accessed on March 31, 2020, from https://www.psychologytoday.com/us/blog/freedom-learn/201502/cognitive-benefits-playing-video-games

[2] Hughes, E. (2014). Effect of Video Games on Child Development. Accessed on March 31, 2020, from https://my.vanderbilt.edu/developmentalpsychologyblog/2014/04/effect-of-video-games-on-child-development/

[3] Carras, M., Van Rooij, A. J., Spruit-Metz, D., Kvedar, J., Griffiths, M. D., Carabas, Y., & Labrique, A. (2018). Commercial Video Games as Therapy: A New Research Agenda to Unlock the Potential of a Global Pastime. Frontiers in psychiatry, 8, 300. doi:10.3389/fpsyt.2017.00300. Accessed on March 31, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5786876/

[4] Lobel, A., Rutger, C., Stone, L., Burk, W., and Granic, C. (2017). Video Gaming and Children's Psychosocial Wellbeing: A Longitudinal Study. Journal of Youth and Adolescence, Volume 46, Issue 4, pp 884–897. Accessed on March 31, 2020, from https://link.springer.com/article/10.1007/s10964-017-0646-z

[5] Granic, C., Loel, A., and Rutger, C. (2013). The Benefits of Playing Video Games. Accessed on March 31, 2020, from https://www.apa.org/pubs/journals/releases/amp-a0034857.pdf

[6] Karimpur, H., and Hamburger, K. (2015). The Future of Action Video Games in Psychological Research and Application. Frontiers in psychology, 6,
Kuhn, S., Kugler, D., Schmalen, K., Weinberger, M., Witt, C., and Gallinat, J. (2015). Does playing violent video games cause aggression? A longitudinal intervention study. Journal of Molecular Psychiatry. Accessed on March 31, 2020, from https://www.nature.com/articles/s41380-018-0031-7

Kimmig, A. S., Andringa, G., and Demtl, B. (2018). Potential Adverse Effects of Violent Video Gaming: Interpersonal-Affective Traits Are Rather Impaired Than Disinhibition in Young Adults. Frontiers in psychology, 9, 736. doi:10.3389/fpsyg.2018.00736. Accessed on March 31, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5964217/