

VIDEO GAMING ADDICTION AMONGST SECONDARY SCHOOL STUDENTS : IS IT TIME TO TAKE ACTION ?

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Abstract

The video game industry has evolved as one of the hugely popular in the entertainment industry. owing to its wide usage which is increasing multifold rapidly it becomes a focal point of researches to study how video gaming is affecting the physiological, sociological and psychological domains especially of young children and adolescents as this group is maximally reported to be indulging in video games. Global trends reveal that the researches one hand advocate the potential detrimental influence of video gaming including aggression and violent tendencies, the other set of researches vividly put forth the potential benefits in cognitive as well as psychosocial arena. However different stakeholders namely students, teachers and parents to be aware of the impact of video gaming on young minds. The present researches focusses on questions like -What are the trends shown by secondary school students regarding video game playing? How does video gaming affect their cognitive and psycho social well-being of students? What are their overall perceptions and experiences of students regarding video gaming? Results reveal that video gaming is a very common and popular leisure activity amongst the secondary school students. There are gender based differences in terms of extent of playing and the category of games. Many of the respondents accepted that video gaming has harms relating to physiological, psychological, academic effects and aspects related to time. The physical forms of playing are being slowly eroded by digital ones and social migrations are following it. What needs to be seen is transitions in children's psychosocial development in near future on account of video gaming and its indulgence or addiction.

Key words- Video gaming, secondary school students

Introduction

Video gaming is predominantly the most sought after leisure activities around the globe so much so that the video game industry is now a multi-million-dollar market with an exponentially increasing growth. A video game is a game played by electronically manipulating images produced by a computer program on a television or other display screen. Video games today are most commonly played on mobiles, computers and laptops, handheld devices and game consoles. Many online games today create their own online communities, while other games namely social games integrate the players' existing real-life communities. Playing video games is a popular pastime for many people –

especially children and adolescent. Video games have rapidly become a universal aspect of child development (Lenhart et al. [2008](#)), and their quick rise to prominence has stimulated scientific inquiry and public concern (Ferguson [2013](#)). With the concept of video games gaining huge popularity the immediate focus went on what are the ill effects of such exposure.

While playing video games does not seem a serious issue to most of its users, like any other platform, excessive use of it is linked to various dimensions of physiological, sociological and psychological effects disturbing their overall health. All over the world, the researches focus on how children are more susceptible to the influence of video game playing (Bushman and Huesmann [2006](#); Lobel et al. [2014a](#)). the effects of video games on children's psychosocial development remains highly debated.

As per Craig A. Anderson and Brad J. Bushman-(2001) violent video games increase aggressive behavior in children and young adults. This view was also shared by Anderson and Dill (2007) who found that gaming leads to high level of aggression which leads to decrease in academic performance. While this may hold true on the face value yet to concretely assert that increase in levels of aggression can be attributed to long lasting effects of video games still remains a much debatable topic.

The most general reaction as well as the bulk of [research](#) have focused on negative outcomes of online games. Parents usually have an adverse reaction to games as they feel it destroys their child's brain, is detrimental to cognitive, psychological and social well-being. This view is also shared by the educational experts who also think that video games corrupt the brain. However, many psychologist as well as scientist believe that video games have positive effects. As per Anand (2007) video games were instrumental in increasing academic performance while according to Jackson et al (2008) video games lead to increase in visual spatial skills which are often needed in areas of math, science, technology and engineering. Problem solving, critical thinking, and creativity are enhanced through video games (Smyth (2007) and moderate level of playing can help in improving academic performance (Skoric et al ,2009)

Weaving thread across the Researches

There are numerous studies done on the effects of video games on children and young adults, most of them measuring the correlation between the exposure of violent video games and the aggression shown by them. There are mixed suggestions given by researches whereby one set of researches advocate the harmful effects of video gaming including aggression and violent tendencies, the other set negate such occurrences.

Dumrique D., Castillo J. (2018) concluded that playing on-line games results into a positive effect in the social behavior of the respondents. This study said that even if the respondents play online games still the personal interaction with others are not affected. They still do have their friends personally and are able to socialize effectively.

Kühn S., Kugler D., Schmalen K., Weichenberger M., Witt C. & Gallinat J. (2018) research on whether playing violent video games cause aggression did not reveal any specific changes in aggression, empathy, interpersonal competencies, impulsivity-related constructs, depression, anxiety

or executive control functions. Eskasasnanda I., (2017) studied causes and effects of online video game Playing among junior-senior high school students and concluded that peer pressure is the main factor underlies online video games.

The researches mostly have been based on assumptions that there are only psychosocial disadvantages of gaming however most of the researches when a meta-analysis of the researches was done revealed that very few studies have found gaming responsible for attention problems. (e.g. Bioulac et al. 2008)). A comparison of non-players with player children revealed that those who played at least one third of their daily free time had more pro social behavior as well as life satisfaction and less problems related to hyperactivity, emotional or peer issues. (Przybylski 2014).

Video games can have multiple effects on players and that these effects can be used as educational potentials (Rebetez C., Betrancourt M. 2007). Video gaming has become an inseparable part of students' lives. Research on video games is in need of a conceptual and methodological framework where comparison can be sought and more generalizations can be made. Hence there is an urgent need for different stakeholders namely students, teachers and parents to be aware of the impact of video gaming on young minds. There are other researches done to attest or invalidate video game addiction to be similar to substance dependence. What seems to be lacking was assessing the attitude of children and teens towards video gaming. What are they so attuned to playing video games? What kind of games they prefer or get attracted towards most? What dominates their preferences or persuasion of these games? How do they see video gaming? How do they come to know about new games? Do they think they are addicted to video games? Are there any gendered differences when it comes to kind of games as well as levels of obsession or addiction to gaming? These are only some of the many questions this study will answer.

Methodology of the Study

For the purpose of this study the unit of analysis was the individual - male and female students. Survey design was employed. Sampling was purposive in nature and the sample of the study was 150 students from grade VIII. The sample comprised of 104 boys and 46 girls

The present study was developed around the following main research questions

1. What are the trends shown by secondary school students regarding video game playing?
2. How does video gaming affect their cognitive and psycho social well-being of students?
3. What are their overall perceptions and experiences of students regarding video gaming?

The data was collected through a questionnaire which had 42 questions with 5 open ended questions. . The questions were framed after a thorough analysis of the researches in this area and were shown to experts to establish face and content validity. The data was analyzed quantitatively in terms of frequency and percentage as well as qualitatively.

Findings of the Study

- All the respondents were between the age 12 to 16 years while most of them being either 14 or 15 years old. Almost all the respondents played video games.
- Regarding the frequency of playing, 40% played every day followed by a moderate number of respondents (35%) who play video games in the range of 1 to 6 times a week.

- Most respondent replied that they played usually for less than an hour (61%) daily.
- There was slight variation regarding this amongst girls and boys with the boy's percentage (57%) being less than that of girls (69%) in response to playing for less than an hour
- Maximum number of respondents started playing video games between the ages 10-16 years.
- Boys (64%) preferred to play online video games more as compared to girls (47%) who preferred more of offline games (53 %).
- There existed gender wise disparity in the types of games popular amongst boys and girls.
- Shooting games (81%), Action (58%) and Racing (36%) were more popular in boys.
- Girls mostly liked games related to beauty (45%)and cooking (40%)
- Most of the respondents revealed the reason of playing video games as either for having fun (47%) or for taking break from studies (43%).
- Maximum students responded that they come to know about new games through friends (60%).
- When asked about if the students were member of any video game clan (Clan- a group of players that regularly play together in one or more multiplayer games). Boys (35%) outnumbered girls (8%) in being a part of video game clan.
- Very few of the respondents stated (7%) that they spend real money on purchasing and/or upgrading games always or often.
- Regarding whether the students posted their progress or winning in gaming on social media platforms like WhatsApp, Facebook, Instagram etc, 39% said that they never posted followed by 34% who sometimes posted and 24% who always posted.
- Maximum number of respondents revealed that they feel happy and proud (70%) when progressing and winning in video games.
- Maximum number of respondents chose the answer “no” for being frustrated by losing a game. Boys (31%) were more frustrated about losing a game compared to girls (15%)
- 32% of the respondents claimed that they never feel angry and frustrated when stopped from playing video games while 27% said sometimes while 18% said always. 23% were never stopped from playing.
- Half of the total respondents (51%) claimed that their schedule of studying never gets affected due to playing video games while 28% said that it sometimes gets affected. Only 12% remarked that the study pattern got disrupted.
- From the responses it is clear that most of the respondents were unsure about whether their grades get negatively affected because of playing video games. 41% replied maybe it gets affected while 40% disagreed and only around 18% agreed.
- A large number of respondents (31%) were unsure about whether they spend a lot of time thinking about their next gaming experience while 29% disagreed and 26% agreed.
- A large number of respondents either disagreed (32%) or strongly disagreed (27%) when questioned if due to video gaming they were unable to enough time on physical activities and outdoor games.17% were however unsure while 23 % agreed.

- A large number of respondents either disagreed (40%) or strongly disagreed (37%) on the statement that they spend less time with family and friends because of video gaming.
- 38% of the students were unsure whether playing video games had improved their problem solving skills followed by 26% who disagreed.
- Regarding whether they felt connected with the online game communities, 42% of boys responded very much while only 11% girls reported to be connected. In particular boys were much involved with online game communities while girls were majorly not a part of any online game community.
- Most of the respondents claimed that they never use unfair means to win while playing video games.
- Most of the respondents (43%) were unsure about whether they consider playing video games is a bad habit while 39% disagreed with video games being bad habit.
- More than half of the respondents preferred playing outdoor games with friends (56%) than playing video games with friends (27%)
- 62% of respondents stated that their families sometimes get angry when they play video games followed by those who said they always got angry (18%) while 11% said the family don't react to their playing.
- Regarding this question on video gaming having positive effects or not, most of the respondents stated that it has no positive effects-(58%) followed by 26% who said yes.
- The positive effects as stated related to relaxation, increase in IQ level, concentration, skills and language development.
- 61% of girls and 35% boys were unsure about being addicted to video gaming. While none of the girls admitted being addicted a small percentage of boys (8%) agreed to being addicted.
- 51% said that they did share about their gaming addiction with others. Friends (68%) were reported to be maximally told about addiction to games followed by family members (33%). Hardly 2% shared this problem with teachers.
- Regarding other purposes for which they used mobile phones, the respondents had responses ranging from using mobiles for communicating, entertainment to seeking knowledge.
- Most of them mentioned TikTok and Google in their answers.
- 50% said that they also used mobile phones for educational purposes.

When questioned about the harm video games may be causing, 60% said that video gaming was causing harm to them while 40% reported no apparent harm. Some of harms stated by them were which were categorized under different themes are as follows

Physiological	Psychological	Academic	Time
<i>Yes, because of video game effect on eyes problem(sic)</i>	<i>Some scary games scare me a lot and have trouble while doing some other chores(sic)</i>	<i>Sometimes playing video games disturb my study.</i>	<i>When play more video game for longer time it mean we have</i>
<i>Yes the cause us eye problem, neck problem etc (sic)</i>	<i>Yes, because your mind get always in the video game(sic)</i>	<i>Yes, due to video games our concentration on studies gets affected</i>	<i>addiction of game, it waste our time as well(sic)</i>
<i>Yes, the harmful radiation of mobile get affect our eyes and brain (sic)</i>	<i>Yes, we can become a game addict person(sic).</i>	<i>Yes, when we are playing video games it harms and we do not study and its addicted to our health and for this games we are failing in the exams (sic)</i>	
<i>Yes, it causes harm to us while we play video games it affects our eyes, it blasts while playing games (sic)</i>			

Discussion

In this study the respondents were between the ages of 12 to 16 while most of them being either 14 or 15 years old. Almost all of the respondents agreed that they play video games at least to some extent. Nearly half of the students revealed that they play video games on a daily basis which should be noted keeping in mind the amount of academic work they are required to do. A large number of girls as well as boys stated that they play video games for 1-4 hours a day. It was apparent from the data that as compared to boys, girls play video games for less number of hours in a day. None of the girls stated that she plays video games for 5-8 hours a day whereas 9% of the boys agreed for the same. There can be various reasons for this disparity. This could be because of the household responsibilities girls fulfill at home other than their studies. The other reason might be the restriction on girls to play video games for longer times by their family members. Another important reason might be they simply don't like playing for longer hours or their favorite games not being as addictive as those played by boys.

More than half of the respondents said that they started playing video games after reaching the age of 10 years. Many of them stated that they started playing when they were somewhere between 5 to 10 years old. 5% of the total respondents revealed that they started playing video games being as young as 1 to 5 years old.

When asked regarding the preference of online or offline gaming it was apparent that online gaming is much more common and popular in boys compared to girls. The girls outnumber boys in preferring offline video gaming. It should be noted that online gaming may bring more harm compared to offline games as online gaming may lead a gamer to various other inappropriate contents. It is also important to note that online games are more captivating in nature as they allow you to connect with

people around the globe which without being observed by guardians might lead a gamer astray. This can be another reason for boys playing video games for greater duration than girls.

A huge gender disparity was observed when asked about the favorite gaming genre. Games of Shooting, Action and Racing which are considered to be linked with aggression are more popular in boys. Whereas softer games like Beauty and Cooking are very popular in girls but least popular in boys. Shooting games were chosen by 81% of the boys whereas only 33% girls chose the same. Parents may need to be more vigilant in terms of about monitoring their sons' video game usage as boys preferred more violence related games than girls (Gentile, Lynch, Linder, & Walsh, 2008).

On the other hand cooking was chosen by 40% of the girls and less than 1% of the boys chose it. The preference of type of video games showed the gender roles fulfilled by girls and boys. Whether these gender roles are inherent or assigned/forced by the society is a subject of another debate. Regarding the question “why do you play video games?” almost all of the respondents said they play video games for having fun or for taking break from studies. Around 3% of the gamer revealed that they play video games because their friends want them to play. Some of the other answers were “for time pass”, “to freshen up mind” and “I am a gamer”. This shows that video game is treated as a leisure activity by most of the students; some of them take it very seriously though.

Regarding being a part of a video game clan, again a wide gender disparity was obtained. Boys outnumber girls for being a part of video game clan in present as well as in past. There are more girl respondents saying that they have never been a member of video game clan than boys. Being a member of video game clan is much more common in boys compared to girls. When asked about spending real money on buying or upgrading video games most of them said

When asked about posting their progress or winning in gaming on social media platforms like WhatsApp, Facebook, Instagram etc., some of the respondents stated that they always post their progress of game on social media. Most of them either stated that they post sometimes or never. This is another trend common in the gamers to post their progress on social media which shows the extent of importance video-gaming has on their lives. 70% of the respondents revealed that they feel happy and proud while progressing and winning in video-games. Maximum number of respondents chose the answer “no” for being frustrated by losing a game. Boys are more frustrated about losing a game compared to girls. Regarding the question of facing difficulty in quitting or exiting game once started playing 16 % of the respondents said they face it ‘always’. 23% of them stated that they are never stopped from playing so they can't say anything about the question. This is another matter of concern that a large number of teens are not stopped from playing video games at all. These questions reveal the direct relation of video-gaming with the emotions of the gamers. It is also true that it is easier to observe the behavior of others than observing your own. The students might not be realizing their reactions while winning or losing a game.

Nearly half of the total respondents (50 %) claimed that their schedule of studying never gets affected due to playing video games. From the rest many (27 %) of them admitted that it gets affected sometimes. Some of the respondents (12%) said it always gets affected while the rest (8 %) said often.

It is also possible that the students don't want to admit that their studies get affected due to video gaming or maybe they don't realize it. While asked about their academic scores being affected due to video gaming most of them were unsure about it. There were more responses of disagreeing and strongly disagreeing than those of agreeing and strongly agreeing. There was not much gender disparity observed. Regarding the question of spending a lot of time thinking about a next gaming experience, 8% strongly agreed whereas 18 % agreed on the same. This shows how much preoccupied their minds are because of video gaming. This indeed is not a healthy sign for the students.

Many students agreed that they don't spend enough time on physical activities and outdoor games because of video gaming. There might be various reasons for the same. Playing video games at home becomes much more comfortable for them especially in hotter seasons because of the inconveniences outdoor. Also, in areas like Mumbai, there is not enough space for them to play outside. The study by Carlson, et al. (2010) sought to find relationships between screen time, parents' restriction on screen time, and physical activity and reported that physical activity was negatively associated with screen time, meaning the more time children reported being physically active, the less screen time they reported.

A large number of respondents either disagreed or strongly disagreed on the statement that they spend less time with family and friends because of video gaming. This might be due to not realizing that they don't spend enough time with the family or not willing to give the true response. These are some of the evidences how video gaming causes harms to the health of the individuals. Most of the respondents claimed that they never use bad language while playing video games. While some agreed that they use bad language 'always' while playing video games. Use of abusing language while playing video games, especially online video games has been observed to be very common nowadays. Most of the respondents responded that they feel connected with the online game communities either very much or little bit. It is very clear from the data that most of the boys feel connected with the online game community whereas least number of girls feels the same. Most of the girls are not a part of any online game community whereas very few boys are not. It shows how to a great extent girls are less affected by online video games compared to boys.

Most of the respondents were unsure about whether they consider playing video games a bad habit or not. More number of respondents disagreed than those who agreed about considering playing video games a bad habit. This shows that most of them do not see video games as a bad habit. Regarding the question on family's reaction, maximum number of respondents stated that their families sometimes get angry when they play video games. Surprisingly few stated that their parents encourage them to play. The reasons behind this might be that the parents themselves play video games or they simply don't realize the harms associated with it. Another reason might be that they must be knowing that their child is not playing video games excessively and hence they encourage.

Regarding the question on video gaming having positive effects or not, most of the respondents stated that it has no positive effects. Many of them stated that it has positive effects relating to relaxation, cognition, skills and language development. The rest of the respondents were unsure about it. Regarding the question of video gaming having harmful effects on them, maximum number of

respondents agreed on the same. Those who said yes stated harms relating to physiological, psychological, academic effects and aspects related to time. Most of them talked about the harms it has on eyes and brain.

Most of the girls as well as boys were unsure about being addicted to video gaming. Almost equal percent in girls and boys agreed on being addicted. A small number of boys strongly agreed on being addicted while no girl strongly agreed on the same. From those who agreed to be addicted almost half the respondents stated that they shared about their gaming addiction with others especially with friends and family. This issue indeed has to be taken care of. For those who feel they are addicted to video games must be consulting the experts in the field which came out to be very rare from the responses.

Based on the research, it can be deduced that peer pressure is one of the leading factor for students playing online video games. Playing online video game can be considered positive when it is used only as a form of entertainment, relaxation, and to drive out boredom from school exhaustion. Playing online video games becomes negative when students are addicted and play it excessively.

Conclusion

Based on the research finding, it can be deduced that video gaming is a very common and popular leisure activity amongst the secondary school students. Almost all of the respondents agreed on playing video games at least to some extent. The most common gaming platforms are mobiles followed by PCs. Video games with violent content are extremely common amongst boys while not so common in girls. Preference of game types showed a clear distinction of gender roles of girls and boys. Most common responses for the reason of playing video games were either ‘for fun’ or ‘for taking breaks from studies’. Online games are more popular amongst boys than in girls whereas offline games are more common in girls compared to boys. Most of the respondents responded that they feel connected with the online game communities either very much or little bit. Here again, the feeling of connectedness with online game communities is much higher in boys. Many of the respondents accepted that video gaming has harms relating to physiological, psychological, academic effects and aspects related to time.

While controversies seem to be all time surfacing whether video gaming should be allowed or not and the extent of its usage and potential harms and benefits, there is no denying that 90 to 97% of children are playing video games (Lenhart et al. 2008). Inevitably the physical playgrounds are being slowly eroded by digital ones and social migrations are following it. To end on a positive note, the ubiquity of video games may offer some positive promises for present and future generations as anyways their creeping into the everyday domain of life has sure footing so hopefully for children’s psychosocial development just like traditional form of plays have in past contributed

References

- Anand, V. (2007). A study of time management: The correlation between video game usage and academic performance markers. *Cyber Psychology and Behavior*, 10(4), 552-559
- Adachi PJ, Willoughby T (2012.) Do video games promote positive youth development? *Journal of Adolescent Research*.; 28:155–165.

- Anderson C.A., Bushman B.J. (2002). Human Aggression, *Annu. Rev. Psychol.* 2002. 53:27–51, Department of Psychology, Iowa State University, Ames, Iowa 50011-3180
- Anderson and Dill (2007) Anderson CA, Dill KE. Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality and Social Psychology.* 2000; 78:772–790.
- Bioulac S, Arfi L, Bouvard MP (2008). Attention deficit/hyperactivity disorder and video games: A comparative study of hyperactive and control children. *European Psychiatry*, 23:134–141.
- Bushman BJ., Huesmann, LR (2006) Short-term and long-term effects of violent media on aggression in children and adults. *Archives of Pediatrics and Adolescent Medicine.* 160:348–352.
- Craig A., Douglas G., Katherine B. (2007) Violent Video Game Effects on Children and Adolescents: *Theory, Research and Public Policy.*
- Dumrique D., Castillo J. (2018), Online Gaming: Impact on the Academic Performance and Social Behavior of the Students in Polytechnic University of the Philippines Laboratory High School, *KnE Social Sciences*, 4th International Research Conference on Higher Education, pages: 1205–1210
- Erikson EH. *Toys and reasons: Stages in the ritualization of experience.* New York: Norton; 1977
- Eskasasnanda I., (2017), Causes and Effects of Online Video Game Playing among Junior-Senior High School Students in Malang East Java, Social Studies Department, Universitas Negeri Malang, Indonesia
- Ferguson CJ (2013) Violent video games and the supreme court: Lessons for the scientific community in the wake of Brown v. Entertainment Merchant’s Association. *American Psychologist*; 68:57–74.
- Gentile DA, Swing EL, Lim CG, Khoo A. (2012) Video game playing, attention problems, and impulsiveness: Evidence of bidirectional causality. *Psychology of Popular Media Culture.*; 1:62–70.
- Granic I, Lobel A, Engels RCME (2014). The benefits of playing video games. *American Psychologist.*; 69:66–78.
- Granic I, Engels RC (2013). Stressful gaming, interceptive awareness, and emotion regulation tendencies: A novel approach. *Cyber Psychology, Behavior, and Social Networking.* 2014; 17:222–227.
- Green CS, Bavelier D. Learning, attentional control, and action video games. *Current Biology.* 2012;2
- Jackson et al (2008) Jackson, L., Zhao, Y., Kolenic III, A., Fitzgerald, H., Harold, R., & Von Eye, A. (2008). Race, gender, and information technology use: The new digital divide. *Cyber Psychology and Behavior*, 11(4), 437-442.
- Kühn S., Kugler D., Schmalen K., Weichenberger M., Witt C. & Gallinat J. (2018), Does playing violent video games cause aggression? A longitudinal intervention study, *Molecular Psychiatry*
- Lenhart, A., Kahne, J., Middaugh, E., Macgill, A., Evans, C., & Vitak, J. (2008). *Teens, video games, and civics.* Washington D.C.: Pew Internet & American Life Project

- Lobel A, Granic I, Engels RC (2014). Associations between children's video game playing and psychosocial health: Information from both parent and child reports. *Cyber Psychology, Behavior and Social Networking*. 2014; 17:639–643.
- Piaget J(1962). *Play, dreams and imitation*. New York: Norton; 1962
- Przybylski AK (2014). Who believes electronic games cause real-world aggression? *Cyber Psychology, Behavior, and Social Networking*. 2014; 17:228–234.
- Rebetez C., Betrancourt M. (2007), Video Game Research in Cognitive and Educational Sciences, *Romanian Association for Cognitive Science*, Department of Psychology and Educational Sciences, Geneva University, Geneva, Switzerland
- Skoric, M., Teo, L., & Neo, R. (2009). Children and video games: Addiction, engagement, and scholastic achievement. *Cyber Psychology and Behavior*, 12(5), 567-572.
- Smyth, J. (2007). Beyond self-selection in video game play: An experimental examination of the consequences of massively multiplayer online role-playing game play. *Cyber Psychology and Behavior*, 10(5), 717-721.
- Vygotsky [1978](#) Vygotsky L. *Mind in society: The development of higher psychological functions*. Cambridge, MA: Harvard; 1978.