

PSYCHOLOGICAL ASSOCIATION OF MOBILE GAMES AND CHILDREN'S WELLBEING [^]

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ABSTRACT— Video gaming is one of the main free time physiomenal exercises often performed by people to get away from boredom. Though it is the activity done by people of all age groups but mostly children practice it a lot compared to their elders. As per the report of statistica.com, the daily time users spend on their devices grew drastically to 215 minutes in 2018 which was just 152 minutes in 2014. This daily device time is expected to grow 234 minutes in 2021. The same report states that 50% of the time spent on the internet was through mobile phones [1]. There is a huge percentage of users who are children as mobile phone users. Mobile gaming is the 50 billion\$ industry. Far bigger than Hollywood's worldwide box office revenue of 40 billion\$ as per the survey of medium.com [2]. Children play an important role in revenue growth. The maximum percentage of game users are children. Games have a huge psychological effect on the body, mind, and soul. Games are designed to perform the tasks which are not possible, righteous, or mostly unethical in intellectual social structure. The killing law and authority disrespect, sexual exploitation, foul language, and gesture, racial stereotypes are quite common and performed with great comfort in mobile gaming [3]. Recently several Hindu religion god and goddesses were used in games performing immoral acts in games. All these works are done to make the games look much violent, realistic and thrilling. Compared to grownups, youth and children are way susceptible to such thrills so they are mainly the prime target to such obscene gaming experience. Our paper deals with brief research over such issues as per children's context. We examine the real-time parameters with special consideration on children about the mental standing with the games' perspective. The mental physical and social aspects are planned to be reviewed extensively. We also plan to take necessary remedial actions to aware of the children and their parents against the threat of gaming which is considered underrated worldwide.

Keywords— Physiomenal, static.com, racial stereotype

I. INTRODUCTION

There used to be the time when the full family used to sit together to discuss different experiences and spent time qualitatively. In the current scenario each member of the family is equipped with digital connections and equipment. Every day is busy with themselves and their sittings. The biggest victim of digital disturbance in society are children. With a lack of guidance, time, care, and warmth they tend to find the mobile phones

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their true friends. This led them to gaming which further becomes addictive. There was the time when games were simple, adequate, and knowledge full but today the situations are far away from practicality. Games are specially designed considering children to be more violent, destructive and anti-social. There are several studies which state that playing video games can sometimes help peoples to release stress, anxiety, and loneliness but it depends on the nature of games content. Games are of different types like action games, adventure games, and role-playing games, simulation games strategy games, sports game s, puzzle games, and ideal games [4].



Figure 1 : Gaming: A Common

It deepens on the nature of games and duration of play how it affects the human mental and social aspects. We research the extensive community to check how the games affect children. Recently a video game called blue whale became worldwide popular negatively when it started to kill children by its weird tasks. Worldwide moral panic was experienced due to it and most of the countries took action against it and parents were alarmed about the situation. The effect was great and the people got awarded in no time. Soon after the problem was restored people started to do the same negligence and started their children to spend huge time over the internet with their smartphones. Mobile gaming. There are several parameters which can be designed to provide the surety of safe digital space of children. Gaming can be allowed in many cases if it is to enhance knowledge, skills, empathy, learning culture, and technology. We do deep research on all the above topics in our paper. There are mostly the issues considered about gaming and its effect on children's development. There are several other parameters also which remained untouched. In most of the internet gaming there are players from every nook and corner of the world who compete with each other to get their name on top in the scoreboard. This drives them to play games continuously avoiding educational and socioeconomic necessities. The regressive social awareness considering this issue an underrated problem is the key cause of degrading productivity and efficiency on educational and

health grounds. We research all these issues essence of the research. In our next selection we deal with the different literature reviews to discuss extensively about previous works and outcomes.

II. 2. LITERATURE SURVEY

[1] Nobuko Ihori and team explained briefly in their paper “*Effect of Video Games on Children’s Aggressive Behavior and Pro-social Behavior: A Panel Study with Elementary School Students*” about a brief study on elementary school students to examine the effect of games on their mind. Their panel study was dependent on two surveys based on the amount of time spent on games and measures of aggressive behavior and prosocial behavior. As a result they found for boys the prosocial behavior was suppressed more as they used the video games more. Their preferences were for more violent games which further found by promoting and exposing prosocial behavior. Eight public school students from the fifth elementary section were considered in Japan for this study. Out of eight four schools were from cities and four from regions. Approx. the same number of children participated in the surveys.

After excluding unwanted entries a total number of 780 students with almost with equal number of participant’s entries were analyzed for the result. To check the authenticity of data the survey was conducted twice in the year of 2001 and 2002. As per the survey boys used games four times a week and girls used games twice a week. Boys played games one hour or more on weekday but girls played less than that. This result was found common in both the surveys. In both the survey the genre of the game “to beat the opponent” which was under the category of violence was chosen maximum. The overall result showed that children are choosier towards violent games. virtual gaming does affect the behavior of the children and boys are at higher risk of gaming addiction compare to girls.[4]

[2] Craig A. Anderson and Karen E. Dill studied the connection of video gaming and aggression in their paper titled “*Video Games and Aggressive Thoughts, Feelings, and Behavior in the Laboratory and Life*”. They examine two studies about violent games and their relation to aggressive behavior and delinquency. The connection was given to the aggressive people. There was a negative relation concerning the academic achievements as per the study. The laboratory exposures of violent games posed to enhance aggressive behavior and thought processes. Compare to women, men were found more susceptible to Aggression extension and exposures. They’re both experiments advocated the fact that exposures to violent games posed a threat against the mental calm and piece of the experimented subjects.

The paper thoroughly explained the short and long term effects of video gaming. The long term run of violent gaming i.e. for 20 minutes itself shown a sudden rise in the mental imbalance and aggressiveness. The long term run of violent gaming i.e. for repeated gaming for years which could cause aggressive belief, perception, and desensitization. The paper thoroughly deals with the relation between aggression and gaming. This can help young researchers to reach many reliable results for sure. [5]

[3] Anna T. Prescott, James D. Sargent and team conducted a metaanalysis in their paper titled “*Metaanalysis of the relationship between violent video gameplay and physical aggression over time*” to evaluate the connection between video game violence and the physical aggression. For a time lag and ranging from 3 months to 4 years, 24 studies were conducted for seventeen thousand individuals. The last subject was the age group children of 9-19 years and citizens of various nations. The aggression parameter was mainly evaluated for

different people to study how the video game aggression affects the people globally. It was obtained from the research that the effect was maximum for whites, moderate for Asians, and significant among his panic. The effect might affect differently to these categories based on their origin, lifestyle, culture, or habits. The research conducts that violent gaming is associated with violent aggressive behavior over time. This approves that and could lead to total physical aggression. This research very well answers the question of why, when, and who gets affected by video game aggression and its association with human unease and violence. [6]

III. 3. RESEARCH ANALYSIS AND SURVEY CONTENTS

The analysis was conducted to obtain the general behavior analysis of children and how they get connected with the gaming and their maximum leniency is towards a genre.

3.1. ANALYSIS DURATION

The survey was first conducted during February-March month when students are generally occupied with examinations and usually they get less or no time to play games. The second survey was during May-June when they are comparatively free and have enough time to play games.

3.2. PARTICIPANTS

Participants of our survey were students from the fourth standard of South Indian schools. We took the same students for both the surveys to compare their resultants during free and busy schedules. The total number of 20 participants from 2 different schools were taken for the observation.

3.3. METHODOLOGY

We made the 2 groups of 10 students each from different schools but from the same standard (Std. 5) and age group. We asked them to answer a questionnaire of 5 questions each.

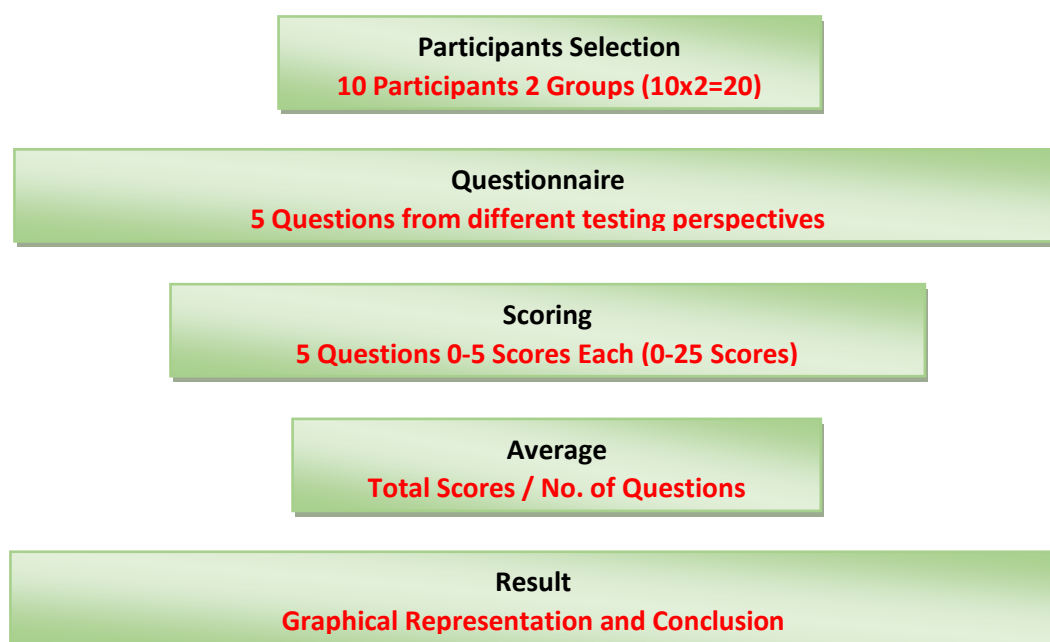


Figure 1: The questionnaire is as follows.

Name:

Institution Name:

Participants: Students

Standard: Five

Q. No.	Questions	Score
1.	<p>How much do you like playing games? Rate in the range (0-5)</p> <ul style="list-style-type: none"> • Don't like at all • Casually • Good to play • Very much fond of • Hamper works to play • Addicted to play 	<ul style="list-style-type: none"> • 0 • 1 • 2 • 3 • 4 • 5
2.	<p>How much time do you get generally to play games per day? Rate in the range (0-5).</p> <ul style="list-style-type: none"> • Not at all • Casually (Less than 10 Minutes) • Often (10 minutes- 30 Minutes) • Very much fond of (30 minutes- 1 Hr.) • Hamper works to play (1 Hr. – 1.5 Hr.) • Addicted to play (1.5 Hr. – 2 Hr.) 	<ul style="list-style-type: none"> • 0 • 1 • 2 • 3 • 4 • 5
3.	<p>Which is your favorite game genre? Rate in the range (0-5).</p> <ul style="list-style-type: none"> • I don't have any • Puzzles • Simulator Games • Strategy Games • Racing Games • Action Games 	<ul style="list-style-type: none"> • 0 • 1 • 2 • 3 • 4 • 5
4.	<p>After playing the game, how do you feel about playing the next level?</p>	

	<p>Rate in the range (0-5).</p> <ul style="list-style-type: none"> • Not at all • Not sure • Sometimes • Often • Very Much • Must 	<ul style="list-style-type: none"> • 0 • 1 • 2 • 3 • 4 • 5
5.	<p>How do you rate playing games compared to your other favorite activities like playing outdoor games, painting, etc?</p> <p>Rate in the range (0-5). (If you don't like games than 0 if like then 1-5)</p> <ul style="list-style-type: none"> • Don't like at all • It's OK • Good to play • Very much fond of • It's great to play • Addicted to play 	<ul style="list-style-type: none"> • 0 • 1 • 2 • 3 • 4 • 5

3.4. EXPLANATION

Question 1 represents how much the child likes to play the game.

Question 2 represents that how much time the child gets to play the game.

Question 3 represents that which type of game is popular among children.

Question 4 checks the level of likelihood. It's normal or addictive.

Question 5 cross-checks the level of likelihood and involvement to the game.

The answers were collected for 10 Children of 5 Schools and tested for its graphical representation. The graphical representations gave us the clear pictures which we demonstrate in our next section of Results.

4. DATA ANALYSIS

The answers obtained from the participants are as follows. C stands for Child.

4.1. ANALYSIS ANSWERS 1

Answers for month February-March

Group 1

	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10
Q.1	2	3	2	2	1	2	3	3	3	3

Q.2	1	2	3	3	2	3	4	4	3	4
Q.3	3	5	4	4	4	5	4	5	5	4
Q.4	3	3	2	3	4	3	4	4	4	4
Q.5	1	3	2	2	1	3	4	4	3	3

Group 2

	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10
Q.1	3	2	3	3	2	1	4	3	2	1
Q.2	2	3	2	3	2	3	2	2	3	3
Q.3	4	4	4	2	2	5	3	4	3	2
Q.4	4	3	3	4	4	3	3	3	3	4
Q.5	3	4	3	2	3	4	3	3	2	3

4.2. ANALYSIS ANSWERS 2

Answers for month May-June

Group 1

	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10
Q.1	3	3	3	2	2	3	3	3	3	3
Q.2	3	3	3	4	3	3	3	3	3	4
Q.3	3	5	3	4	4	5	4	5	5	4
Q.4	2	2	2	4	3	4	3	4	4	3
Q.5	2	3	3	2	2	4	4	3	3	3

Group 2

	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10
Q.1	3	3	3	3	3	3	4	3	3	2
Q.2	3	3	2	3	3	3	2	2	3	2
Q.3	4	4	3	2	2	5	3	4	2	3
Q.4	3	2	4	3	3	2	3	3	4	4
Q.5	4	3	4	4	2	4	3	4	3	3

4.3. ANALYSIS ANSWERS 1 – GRAPHICAL REPRESENTATION



IV. RESULT AND CONCLUSION

Thus we researched the issues related to gaming and its effect on children. Our research was mainly focused on 50 children of 5 groups of 10 members each. The research was obtained during 2 timespan to check the effect with time. We considered two time spans when children are usually very busy or free. This makes the result fluctuation much reliable and justifiable. Considering the overall values we found that, first during the free time children were much attracted to games. That might be due to leisure or parents less consideration towards children gaming time during holidays. Overall liking towards game increased almost for everyone. Second. This we observed by comparing the graphs obtained from considering first answer entries. From the second answer entries graph we obtained almost every child started to give more time towards the game. From the third answer entries graph we observed their interest towards more complex and aggressive gaming gradually increased when they start giving more time to gaming. From the fourth answer entries graph we examined that their zeal towards playing the next level increased with increasing interest, time, and exciting games. From the fifth answer entries graph we found that their interest to play virtual games dominated over enjoying outdoor games and other hobbies. This leads to addiction. Parents, whose children filled 3, 4, 5 in most of the entries should be alarmed and start considering how to avoid chances of dangerous gaming effects. This could seriously cause permanent personality degradation. Parents with 1, 2 entries should be considerate. The most shocking observation was, no children entered 0 in any of the questions means everyone likes to play virtual games. We should continuously observe children against the ill effects of virtual gaming.

REFERENCES

1. Christina Gough, Mobile gaming - Statistics & Facts, <https://www.statista.com/topics/1906/mobile-gaming/> , Nov 22, 2019.
2. John-Paul Burke, The Rise of the Auto-Gaming Relationship, <https://medium.com/gameloft/the-rise-of-the-auto-gaming-relationship-39f79bfec9b5>, May 15, 2018.
3. "Children and Video Games: Playing with Violence." American Academy of Child and Adolescent Psychiatry, March 2011.
4. Nobuko Ihori , Akira Sakamoto, Akiko Shibuya, Shintaro Yukawa "Effect of Video Games on Children's Aggressive Behavior and Pro-social Behavior: A Panel Study with Elementary School Students", DiGRA 2007.
5. Craig A. Anderson, Karen E. Dill "Video Games and Aggressive Thoughts, Feelings, and Behavior in the Laboratory and in Life", Journal of Personality and Social Psychology, October, 1999.
6. Anna T. Prescott, James D. Sargent and Jay G. Hull, "Metaanalysis of the relationship between violent video game play and physical aggression over time", PNAS, August 2016.
7. Bushman BJ, Huesmann LR (2014) Twenty-five years of research on violence in digital games and aggression revisited: A reply to Elson and Ferguson (2013). *Eur Psychol* 19: 47–55.
8. Elson M, Ferguson CJ (2014) Twenty-five years of research on violence in digital games and aggression: Empirical evidence, perspectives, and a debate gone astray. *Eur Psychol* 19:33–46.
9. Krahe B (2014) Restoring the spirit of fair play in the debate about violent video games: A comment on Elson and Ferguson (2013). *Eur Psychol* 19:56–59.
10. Warburton W (2014) Apples, oranges, and the burden of proof—Putting media violence find